

Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: LUMARK

Report Number: P1449895

Luminaire Tested: **TWC60_T2_48W_5000K**

Issue Date: 5/19/2026

Test Information

Test Method: LM-79-08
Report Number: P1449895
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA ()
Test Lab: INNOVATION CENTER
Issue Date: 5/19/2026
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: TWC60_T2_48W_5000K
Description: Tapered Wall Cutoff Wall Mount Luminaire at, T2 distribution, 48W
5000K settings
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7568 lumens
Efficiency: N/A
Efficacy: 159.0 lumens/watt
Luminous Opening: Rectangular (W 0.67' x L: 0.42' x H: 0')
IES Classification: Type II - Short
BUG Rating: B2 - U0 - G2

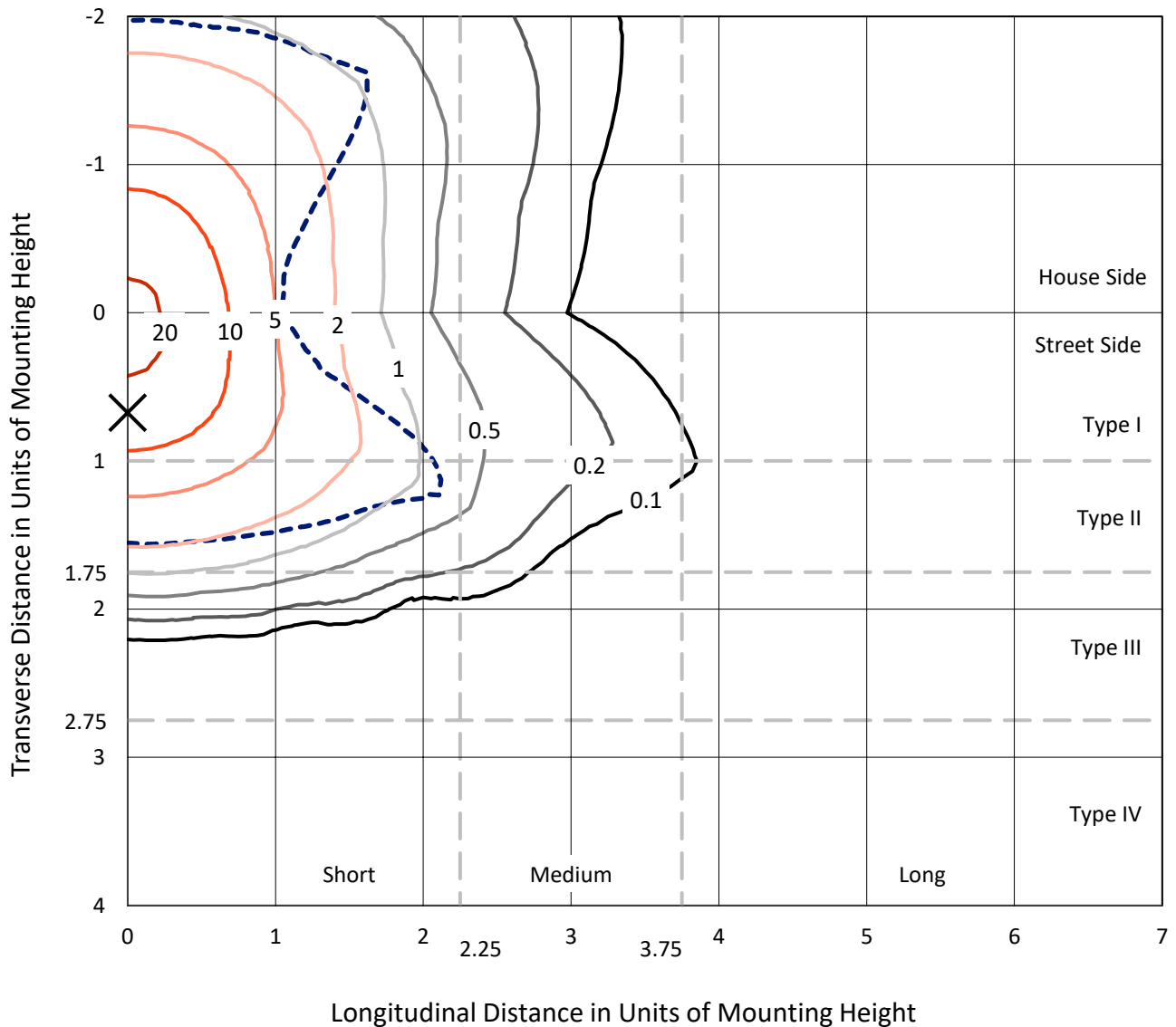
Input Watts (W): 47.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

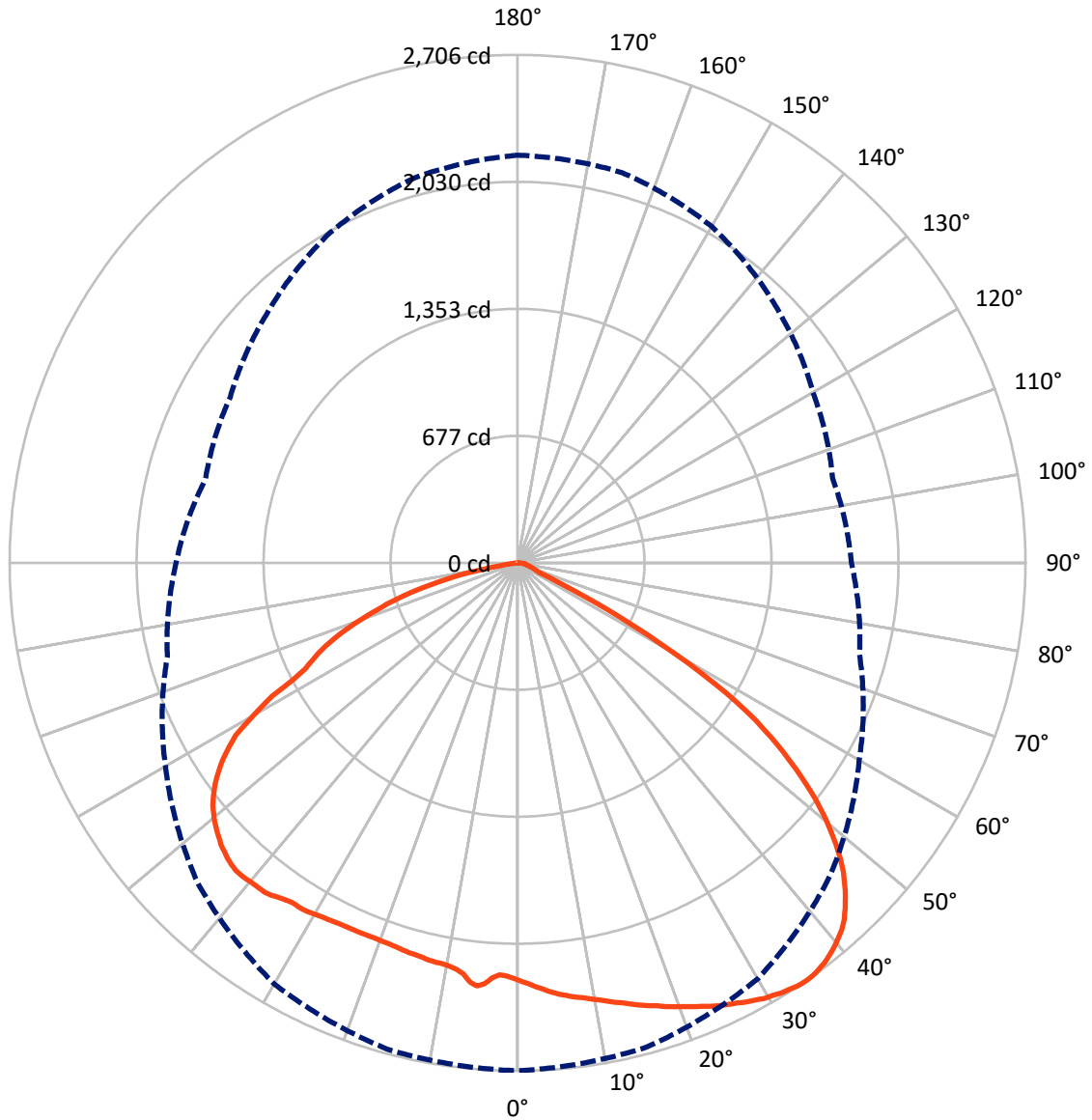
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 22.8 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 0-Deg Lateral - - - Horizontal Cone Through 34-Deg Vertical

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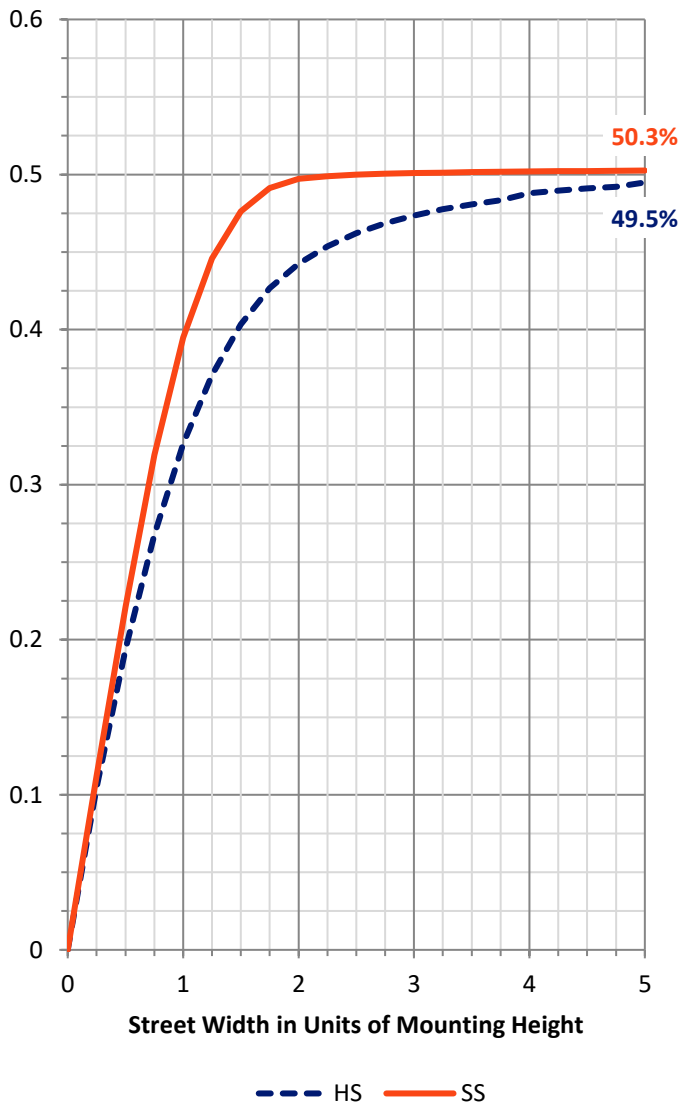
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 3765.4 | 0.0 | 3765.4 |
| | % Fixture | 49.8 | 0.0 | 49.8 |
| Street Side | Lumens | 3802.6 | 0.0 | 3802.6 |
| | % Fixture | 50.2 | 0.0 | 50.2 |
| Total | Lumens | 7568.0 | 0.0 | 7568.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 214.4 | 2.8 |
| 10°-20° | 631.9 | 8.4 |
| 20°-30° | 1013.9 | 13.4 |
| 30°-40° | 1326.9 | 17.5 |
| 40°-50° | 1511.9 | 20.0 |
| 50°-60° | 1439.7 | 19.0 |
| 60°-70° | 934.6 | 12.3 |
| 70°-80° | 414.3 | 5.5 |
| 80°-90° | 80.4 | 1.1 |
| 90°-100° | 0.0 | 0.0 |
| 100°-110° | 0.0 | 0.0 |
| 110°-120° | 0.0 | 0.0 |
| 120°-130° | 0.0 | 0.0 |
| 130°-140° | 0.0 | 0.0 |
| 140°-150° | 0.0 | 0.0 |
| 150°-160° | 0.0 | 0.0 |
| 160°-170° | 0.0 | 0.0 |
| 170°-180° | 0.0 | 0.0 |
| 0°-90° | 7568.0 | 100.0 |
| 0°-180° | 7568.0 | 100.0 |



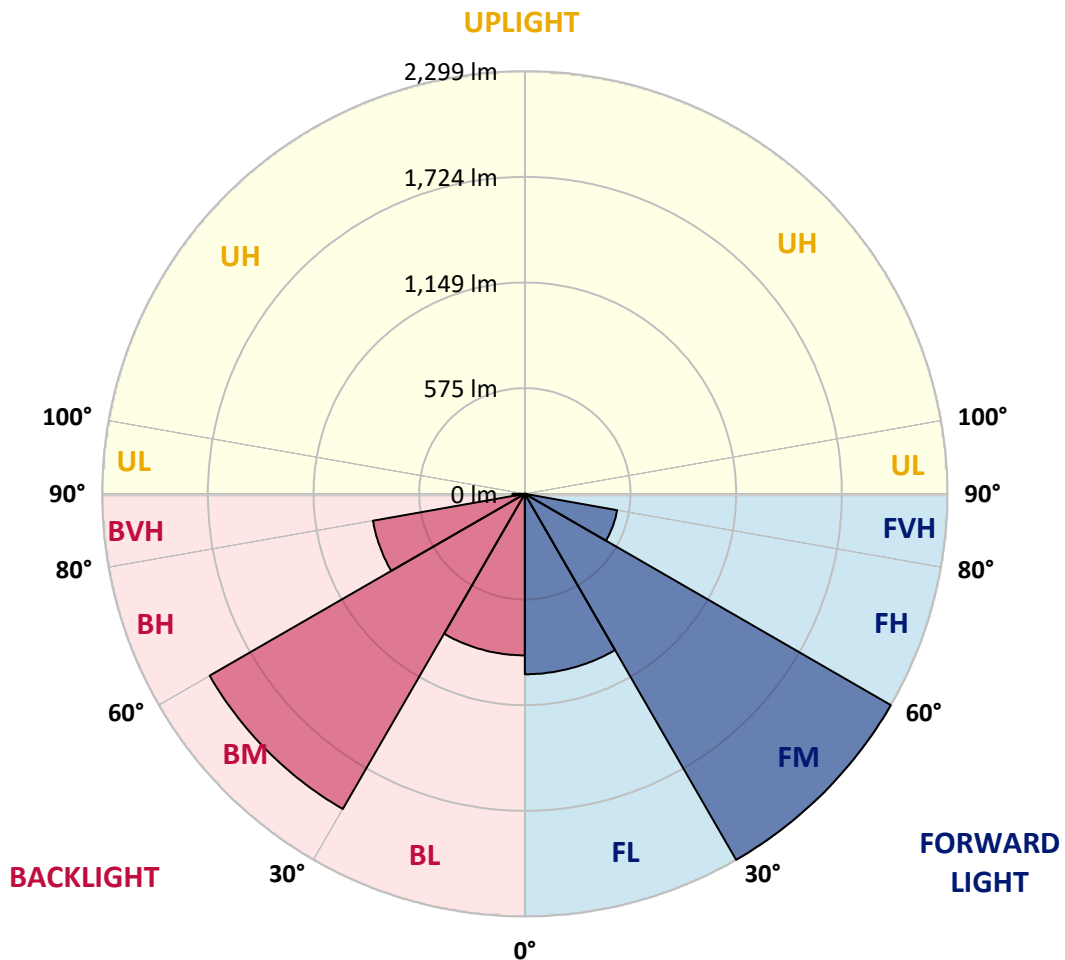
REPORT NUMBER: P1449895
 CATALOG NUMBER: TWC60_T2_48W_5000K

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 981.5 | 13.0 | | | |
| FM (30°-60°) | 2298.9 | 30.4 | | | |
| FH (60°-80°) | 509.9 | 6.7 | | | G0/660 |
| FVH (80°-90°) | 12.3 | 0.2 | | | G1/100 |
| BL (0°-30°) | 878.8 | 11.6 | B2/1000 | | |
| BM (30°-60°) | 1979.6 | 26.2 | B2/2500 | | |
| BH (60°-80°) | 839.0 | 11.1 | B2/1000 | | G2/1000 |
| BVH (80°-90°) | 68.0 | 0.9 | | | G1/100 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B2-U0-G2

Type II Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 15° | 30° | 45° | 60° | 75° | 90° | 105° | 120° | 135° | 150° |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 2228.8 | 2228.8 | 2228.8 | 2228.8 | 2228.8 | 2228.8 | 2228.8 | 2228.8 | 2228.8 | 2228.8 | 2228.8 |
| 1° | 2243.0 | 2241.7 | 2242.5 | 2237.1 | 2232.9 | 2231.2 | 2229.2 | 2225.0 | 2221.3 | 2218.6 | 2216.4 |
| 2° | 2262.1 | 2258.5 | 2254.6 | 2248.2 | 2240.6 | 2233.2 | 2227.2 | 2219.6 | 2213.3 | 2210.1 | 2206.2 |
| 3° | 2277.2 | 2275.4 | 2268.3 | 2258.3 | 2248.1 | 2233.8 | 2224.7 | 2213.5 | 2204.6 | 2198.6 | 2195.6 |
| 4° | 2294.3 | 2289.4 | 2281.6 | 2268.9 | 2251.8 | 2234.4 | 2220.2 | 2207.0 | 2196.9 | 2196.1 | 2204.8 |
| 5° | 2308.6 | 2303.8 | 2293.1 | 2278.1 | 2256.5 | 2235.2 | 2217.6 | 2200.5 | 2191.1 | 2206.8 | 2233.7 |
| 6° | 2320.8 | 2315.0 | 2304.2 | 2286.0 | 2261.0 | 2232.7 | 2208.2 | 2189.8 | 2193.2 | 2232.9 | 2258.3 |
| 7° | 2332.9 | 2325.2 | 2310.3 | 2291.2 | 2263.0 | 2232.1 | 2203.6 | 2183.3 | 2206.3 | 2253.5 | 2261.6 |
| 8° | 2343.2 | 2335.7 | 2320.2 | 2295.4 | 2266.1 | 2230.4 | 2196.9 | 2177.8 | 2223.5 | 2255.6 | 2232.8 |
| 9° | 2356.0 | 2347.6 | 2326.3 | 2302.5 | 2265.3 | 2226.3 | 2188.4 | 2172.5 | 2239.7 | 2238.2 | 2199.2 |
| 10° | 2368.2 | 2356.8 | 2336.7 | 2305.7 | 2267.3 | 2220.2 | 2180.2 | 2175.4 | 2238.9 | 2202.0 | 2183.8 |
| 11° | 2382.5 | 2371.4 | 2343.1 | 2309.1 | 2264.5 | 2217.0 | 2172.4 | 2181.9 | 2229.3 | 2176.0 | 2172.6 |
| 12° | 2397.6 | 2385.0 | 2352.7 | 2314.7 | 2265.0 | 2211.8 | 2159.7 | 2188.5 | 2198.3 | 2162.9 | 2164.6 |
| 13° | 2411.0 | 2397.4 | 2363.0 | 2316.7 | 2264.1 | 2204.7 | 2148.3 | 2193.1 | 2168.2 | 2151.1 | 2158.9 |
| 14° | 2428.3 | 2412.2 | 2373.7 | 2321.1 | 2262.5 | 2197.3 | 2137.6 | 2195.9 | 2144.7 | 2141.2 | 2155.1 |
| 15° | 2445.7 | 2428.6 | 2383.9 | 2325.9 | 2258.3 | 2188.3 | 2125.3 | 2186.8 | 2127.5 | 2132.8 | 2145.4 |
| 16° | 2460.1 | 2442.5 | 2397.8 | 2329.7 | 2258.8 | 2182.7 | 2113.2 | 2170.9 | 2114.3 | 2123.8 | 2139.2 |
| 17° | 2474.8 | 2457.5 | 2407.2 | 2337.1 | 2257.8 | 2175.1 | 2101.6 | 2146.0 | 2098.7 | 2114.3 | 2133.9 |
| 18° | 2492.9 | 2469.7 | 2417.7 | 2342.8 | 2256.3 | 2166.5 | 2091.5 | 2111.7 | 2086.9 | 2102.4 | 2128.6 |
| 19° | 2509.2 | 2485.8 | 2429.3 | 2348.8 | 2252.7 | 2155.9 | 2080.8 | 2080.7 | 2074.6 | 2093.6 | 2120.1 |
| 20° | 2524.1 | 2497.3 | 2437.2 | 2352.4 | 2252.6 | 2148.3 | 2072.9 | 2054.4 | 2059.6 | 2082.9 | 2111.5 |
| 21° | 2541.1 | 2512.7 | 2449.4 | 2355.5 | 2246.6 | 2140.5 | 2068.6 | 2034.3 | 2042.4 | 2071.2 | 2106.9 |
| 22° | 2558.4 | 2525.7 | 2456.0 | 2359.1 | 2240.9 | 2131.2 | 2063.9 | 2014.6 | 2025.3 | 2060.9 | 2101.6 |
| 23° | 2576.1 | 2543.1 | 2464.7 | 2359.8 | 2234.4 | 2117.9 | 2058.7 | 1994.7 | 2011.0 | 2050.4 | 2093.1 |
| 24° | 2593.2 | 2558.0 | 2473.9 | 2362.0 | 2228.9 | 2106.3 | 2051.0 | 1977.0 | 1994.9 | 2040.7 | 2088.1 |
| 25° | 2607.2 | 2571.7 | 2483.9 | 2360.6 | 2220.6 | 2087.5 | 2040.9 | 1959.2 | 1979.0 | 2030.2 | 2085.9 |
| 26° | 2620.8 | 2585.9 | 2493.3 | 2359.5 | 2209.5 | 2069.7 | 2023.9 | 1934.8 | 1959.7 | 2017.2 | 2081.9 |
| 27° | 2637.7 | 2598.7 | 2506.1 | 2361.5 | 2200.7 | 2053.1 | 2003.4 | 1914.3 | 1942.3 | 2006.8 | 2076.8 |
| 28° | 2650.7 | 2610.6 | 2512.4 | 2357.5 | 2188.3 | 2032.5 | 1975.2 | 1890.1 | 1925.4 | 1997.8 | 2075.5 |
| 29° | 2666.9 | 2625.5 | 2521.9 | 2358.4 | 2174.2 | 2012.8 | 1945.8 | 1866.5 | 1909.9 | 1986.4 | 2074.5 |
| 30° | 2675.4 | 2639.1 | 2527.2 | 2356.2 | 2162.1 | 1988.3 | 1909.1 | 1842.2 | 1891.6 | 1976.5 | 2070.4 |
| 31° | 2687.7 | 2648.0 | 2537.8 | 2358.6 | 2147.8 | 1964.5 | 1874.8 | 1817.8 | 1871.8 | 1967.6 | 2070.1 |
| 32° | 2695.1 | 2658.5 | 2543.2 | 2357.3 | 2132.0 | 1940.4 | 1840.9 | 1791.0 | 1854.9 | 1958.2 | 2067.9 |
| 33° | 2703.2 | 2664.0 | 2552.1 | 2355.8 | 2116.9 | 1913.3 | 1807.5 | 1764.9 | 1834.4 | 1949.4 | 2069.3 |
| 34° | 2706.2 | 2670.1 | 2558.7 | 2355.6 | 2102.1 | 1885.8 | 1778.0 | 1737.7 | 1817.1 | 1940.9 | 2068.7 |
| 35° | 2704.5 | 2671.3 | 2565.4 | 2354.4 | 2087.3 | 1859.3 | 1745.8 | 1710.6 | 1795.4 | 1930.6 | 2066.6 |
| 36° | 2695.9 | 2670.2 | 2565.4 | 2350.3 | 2072.0 | 1829.1 | 1713.3 | 1683.5 | 1776.6 | 1924.6 | 2057.5 |
| 37° | 2686.6 | 2661.7 | 2569.5 | 2351.3 | 2057.1 | 1799.3 | 1679.9 | 1655.7 | 1757.4 | 1913.2 | 2056.6 |
| 38° | 2670.8 | 2650.3 | 2566.5 | 2353.0 | 2044.9 | 1771.2 | 1646.6 | 1628.1 | 1739.5 | 1901.0 | 2057.3 |
| 39° | 2651.8 | 2636.5 | 2559.6 | 2352.5 | 2031.6 | 1741.3 | 1612.0 | 1602.3 | 1720.4 | 1885.6 | 2061.8 |
| 40° | 2631.0 | 2617.3 | 2553.6 | 2353.6 | 2019.3 | 1710.5 | 1577.4 | 1576.4 | 1701.7 | 1875.0 | 2066.7 |
| 41° | 2608.0 | 2595.8 | 2541.0 | 2353.6 | 2007.8 | 1682.5 | 1542.7 | 1550.6 | 1681.9 | 1871.5 | 2064.8 |
| 42° | 2576.1 | 2569.4 | 2526.0 | 2352.2 | 1996.2 | 1653.2 | 1508.7 | 1520.8 | 1659.6 | 1865.6 | 2064.0 |
| 43° | 2535.3 | 2538.8 | 2505.5 | 2351.0 | 1986.9 | 1625.5 | 1470.6 | 1491.1 | 1633.4 | 1853.5 | 2063.7 |
| 44° | 2491.8 | 2500.7 | 2482.0 | 2348.8 | 1977.7 | 1599.3 | 1431.5 | 1461.7 | 1614.8 | 1840.0 | 2065.1 |



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 CATALOG NUMBER: TWC60_T2_48W_5000K

CANDELA DISTRIBUTION (continued):

| | 0° | 15° | 30° | 45° | 60° | 75° | 90° | 105° | 120° | 135° | 150° |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 45° | 2444.1 | 2460.0 | 2457.3 | 2342.5 | 1969.5 | 1574.1 | 1392.9 | 1429.8 | 1596.2 | 1826.0 | 2065.0 |
| 46° | 2392.9 | 2412.6 | 2425.5 | 2334.6 | 1962.1 | 1550.1 | 1356.0 | 1398.6 | 1577.6 | 1821.7 | 2060.0 |
| 47° | 2331.2 | 2360.5 | 2393.6 | 2322.0 | 1957.4 | 1524.7 | 1314.7 | 1367.3 | 1557.1 | 1815.3 | 2048.8 |
| 48° | 2264.5 | 2301.8 | 2351.2 | 2309.7 | 1950.2 | 1496.0 | 1275.6 | 1333.1 | 1532.8 | 1806.2 | 2035.7 |
| 49° | 2193.1 | 2235.2 | 2305.0 | 2288.3 | 1945.1 | 1465.8 | 1234.2 | 1296.0 | 1508.8 | 1794.5 | 2020.9 |
| 50° | 2115.3 | 2159.5 | 2254.4 | 2266.1 | 1941.7 | 1433.1 | 1193.9 | 1255.6 | 1490.1 | 1781.8 | 2003.7 |
| 51° | 2030.1 | 2084.2 | 2196.9 | 2242.2 | 1937.5 | 1399.6 | 1152.5 | 1216.5 | 1469.8 | 1765.5 | 1985.1 |
| 52° | 1940.1 | 1997.6 | 2133.6 | 2215.5 | 1935.5 | 1364.4 | 1109.7 | 1183.1 | 1445.0 | 1751.1 | 1967.5 |
| 53° | 1842.7 | 1907.4 | 2060.8 | 2180.7 | 1930.7 | 1323.3 | 1068.8 | 1151.5 | 1418.1 | 1737.8 | 1947.2 |
| 54° | 1742.1 | 1810.2 | 1978.4 | 2140.2 | 1924.8 | 1287.9 | 1028.4 | 1112.7 | 1390.2 | 1721.9 | 1925.3 |
| 55° | 1635.2 | 1706.9 | 1890.9 | 2092.3 | 1920.4 | 1251.6 | 984.4 | 1073.0 | 1359.5 | 1703.9 | 1901.5 |
| 56° | 1520.7 | 1597.7 | 1796.9 | 2040.7 | 1912.6 | 1216.2 | 941.2 | 1036.4 | 1334.0 | 1683.0 | 1875.5 |
| 57° | 1391.1 | 1479.4 | 1693.4 | 1981.2 | 1901.0 | 1182.0 | 898.5 | 1000.2 | 1304.7 | 1661.6 | 1846.9 |
| 58° | 1235.4 | 1350.3 | 1584.0 | 1909.0 | 1882.6 | 1148.1 | 854.1 | 962.3 | 1276.7 | 1639.9 | 1814.1 |
| 59° | 1060.2 | 1197.2 | 1466.3 | 1828.4 | 1862.0 | 1114.5 | 809.9 | 921.4 | 1246.4 | 1617.9 | 1775.2 |
| 60° | 878.9 | 1021.0 | 1338.6 | 1734.8 | 1834.5 | 1080.9 | 764.1 | 879.5 | 1215.3 | 1595.9 | 1732.0 |
| 61° | 708.1 | 839.2 | 1197.8 | 1630.0 | 1804.9 | 1049.8 | 720.4 | 837.5 | 1183.5 | 1573.7 | 1679.8 |
| 62° | 537.4 | 668.9 | 1028.6 | 1506.5 | 1768.0 | 1022.8 | 679.5 | 798.2 | 1153.8 | 1543.6 | 1601.5 |
| 63° | 366.8 | 498.7 | 852.4 | 1373.9 | 1724.6 | 998.7 | 635.5 | 756.3 | 1125.8 | 1510.7 | 1523.3 |
| 64° | 237.8 | 328.5 | 676.6 | 1235.9 | 1672.6 | 978.9 | 592.3 | 717.3 | 1096.2 | 1473.3 | 1443.4 |
| 65° | 156.3 | 205.2 | 500.7 | 1074.2 | 1612.2 | 965.4 | 550.9 | 678.8 | 1065.9 | 1435.1 | 1307.8 |
| 66° | 120.3 | 135.1 | 324.9 | 894.5 | 1539.9 | 959.1 | 510.0 | 640.4 | 1033.2 | 1383.9 | 1209.3 |
| 67° | 109.1 | 106.1 | 198.6 | 709.9 | 1450.9 | 955.6 | 470.9 | 602.0 | 1001.2 | 1301.6 | 1151.5 |
| 68° | 101.4 | 96.4 | 125.7 | 525.2 | 1340.8 | 953.8 | 431.5 | 564.9 | 963.4 | 1199.5 | 1103.2 |
| 69° | 93.9 | 88.8 | 98.4 | 340.5 | 1217.4 | 950.8 | 393.6 | 528.6 | 926.2 | 1120.4 | 1055.7 |
| 70° | 86.5 | 81.5 | 88.5 | 198.4 | 1060.2 | 950.1 | 356.7 | 494.0 | 890.5 | 1070.6 | 1010.0 |
| 71° | 79.6 | 75.4 | 81.3 | 117.1 | 852.7 | 955.1 | 321.0 | 458.9 | 850.2 | 1022.3 | 968.0 |
| 72° | 74.0 | 69.2 | 74.1 | 84.9 | 631.3 | 956.0 | 288.7 | 424.5 | 785.9 | 969.3 | 923.7 |
| 73° | 68.5 | 63.1 | 66.8 | 75.4 | 409.7 | 933.6 | 256.7 | 389.1 | 725.4 | 914.4 | 876.9 |
| 74° | 63.0 | 57.7 | 59.6 | 66.2 | 188.0 | 868.5 | 226.0 | 354.7 | 685.4 | 862.6 | 824.3 |
| 75° | 57.4 | 51.8 | 52.8 | 57.0 | 104.3 | 785.2 | 197.1 | 322.5 | 651.9 | 813.6 | 769.2 |
| 76° | 52.6 | 46.6 | 45.1 | 50.8 | 87.9 | 695.7 | 168.3 | 290.4 | 615.0 | 765.9 | 702.9 |
| 77° | 49.0 | 42.4 | 39.2 | 46.0 | 72.5 | 606.1 | 139.6 | 260.2 | 578.4 | 721.5 | 626.5 |
| 78° | 46.7 | 39.0 | 34.3 | 40.4 | 57.1 | 516.5 | 115.5 | 223.7 | 544.6 | 678.7 | 557.4 |
| 79° | 44.8 | 36.8 | 30.8 | 33.6 | 51.7 | 394.1 | 93.9 | 195.0 | 508.7 | 637.6 | 493.5 |
| 80° | 42.3 | 35.0 | 28.0 | 27.3 | 51.7 | 297.8 | 74.5 | 166.4 | 473.5 | 584.4 | 443.9 |
| 81° | 39.5 | 32.7 | 25.9 | 23.2 | 48.0 | 208.2 | 58.2 | 137.9 | 439.9 | 528.6 | 392.9 |
| 82° | 36.1 | 30.1 | 23.9 | 20.3 | 41.1 | 135.5 | 44.2 | 115.8 | 403.5 | 471.8 | 280.0 |
| 83° | 29.8 | 26.2 | 21.8 | 17.7 | 34.1 | 79.8 | 32.0 | 94.9 | 367.3 | 428.5 | 167.2 |
| 84° | 23.6 | 21.4 | 18.5 | 15.4 | 23.4 | 59.6 | 24.5 | 74.4 | 317.4 | 389.2 | 56.4 |
| 85° | 16.9 | 15.9 | 13.9 | 13.1 | 13.8 | 39.6 | 17.0 | 56.2 | 255.6 | 310.9 | 32.5 |
| 86° | 11.8 | 12.0 | 10.1 | 9.7 | 8.9 | 19.5 | 9.5 | 39.2 | 204.5 | 232.7 | 8.9 |
| 87° | 8.1 | 8.2 | 6.9 | 6.7 | 6.0 | 10.7 | 5.4 | 26.6 | 153.5 | 154.5 | 4.4 |
| 88° | 4.3 | 4.4 | 3.7 | 3.7 | 3.1 | 7.1 | 2.5 | 13.9 | 102.4 | 76.2 | 1.5 |
| 89° | 0.6 | 0.6 | 0.6 | 0.6 | 0.7 | 3.7 | 0.8 | 1.5 | 51.4 | 0.6 | 0.4 |



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CANDELA DISTRIBUTION (continued):

| | 0° | 15° | 30° | 45° | 60° | 75° | 90° | 105° | 120° | 135° | 150° |
|------|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|
| 90° | 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 |
| 92° | 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 |
| 94° | 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 |
| 96° | 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 |
| 98° | 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 |
| 100° | 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 |
| 102° | 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 |
| 104° | 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 |
| 106° | 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 |
| 108° | 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 |
| 110° | 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 |
| 112° | 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 |
| 114° | 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 |
| 116° | 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 |
| 118° | 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 |
| 120° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 121° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 122° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 123° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 124° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 125° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 126° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 127° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 128° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 129° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 130° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 131° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 132° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 133° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 134° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



REPORT NUMBER: P1449895
 CATALOG NUMBER: TWC60_T2_48W_5000K

CANDELA DISTRIBUTION (continued):

| | 0° | 15° | 30° | 45° | 60° | 75° | 90° | 105° | 120° | 135° | 150° |
|------|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|
| 135° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 136° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 137° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 138° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 139° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 140° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 141° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 142° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 143° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 144° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 145° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 146° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 147° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 148° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 149° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 150° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 151° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 152° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 153° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 154° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 155° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 156° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 157° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 158° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 159° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 160° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 161° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 162° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 163° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 164° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 165° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 166° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 167° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 168° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 169° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 170° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 171° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 172° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 173° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 174° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 175° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 176° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 177° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 178° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 179° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



REPORT NUMBER: P1449895
CATALOG NUMBER: TWC60_T2_48W_5000K

CANDELA DISTRIBUTION (continued):

| | 0° | 15° | 30° | 45° | 60° | 75° | 90° | 105° | 120° | 135° | 150° |
|------|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|
| 180° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



REPORT NUMBER: P1449895

CATALOG NUMBER: TWC60_T2_48W_5000K

CANDELA DISTRIBUTION (continued):

| | 165° | 180° | 195° | 210° | 225° | 240° | 255° | 270° | 285° | 300° | 315° |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 2228.8 | 2228.8 | 2228.8 | 2228.8 | 2228.8 | 2228.8 | 2228.8 | 2228.8 | 2228.8 | 2228.8 | 2228.8 |
| 1° | 2214.3 | 2214.1 | 2215.9 | 2214.4 | 2217.7 | 2220.2 | 2223.1 | 2229.6 | 2233.1 | 2235.4 | 2238.3 |
| 2° | 2201.1 | 2202.2 | 2201.5 | 2203.0 | 2210.6 | 2214.4 | 2219.9 | 2227.6 | 2236.9 | 2242.0 | 2249.3 |
| 3° | 2194.7 | 2197.3 | 2193.7 | 2194.2 | 2197.4 | 2207.0 | 2213.1 | 2224.5 | 2236.3 | 2248.2 | 2261.9 |
| 4° | 2215.4 | 2214.9 | 2208.0 | 2196.4 | 2189.4 | 2197.3 | 2207.3 | 2223.1 | 2241.1 | 2255.0 | 2271.6 |
| 5° | 2248.8 | 2250.4 | 2240.0 | 2221.3 | 2193.2 | 2188.0 | 2201.1 | 2218.4 | 2240.0 | 2262.3 | 2281.5 |
| 6° | 2264.6 | 2265.0 | 2264.4 | 2245.2 | 2211.4 | 2182.6 | 2193.2 | 2213.1 | 2239.7 | 2267.4 | 2288.9 |
| 7° | 2251.8 | 2247.5 | 2254.1 | 2256.4 | 2233.5 | 2184.7 | 2185.2 | 2209.1 | 2240.0 | 2271.1 | 2296.9 |
| 8° | 2212.3 | 2208.1 | 2215.6 | 2241.8 | 2246.6 | 2193.3 | 2176.1 | 2203.8 | 2240.5 | 2273.9 | 2302.2 |
| 9° | 2190.7 | 2190.7 | 2191.0 | 2203.4 | 2242.9 | 2209.1 | 2165.1 | 2195.0 | 2235.5 | 2274.8 | 2308.0 |
| 10° | 2181.1 | 2180.5 | 2179.9 | 2179.4 | 2215.9 | 2219.8 | 2158.2 | 2188.4 | 2233.8 | 2277.1 | 2314.3 |
| 11° | 2173.0 | 2173.8 | 2171.5 | 2168.1 | 2183.9 | 2221.6 | 2151.9 | 2180.4 | 2227.5 | 2276.0 | 2317.0 |
| 12° | 2171.4 | 2171.9 | 2165.9 | 2156.3 | 2161.0 | 2211.8 | 2148.3 | 2168.6 | 2224.5 | 2275.9 | 2323.0 |
| 13° | 2166.5 | 2168.7 | 2163.2 | 2149.7 | 2147.7 | 2187.7 | 2150.7 | 2157.7 | 2219.1 | 2275.7 | 2328.7 |
| 14° | 2161.2 | 2163.0 | 2154.2 | 2144.3 | 2133.9 | 2156.4 | 2156.1 | 2148.9 | 2214.4 | 2275.9 | 2334.3 |
| 15° | 2155.9 | 2157.6 | 2149.1 | 2137.1 | 2121.4 | 2129.3 | 2155.6 | 2139.6 | 2207.5 | 2278.1 | 2342.3 |
| 16° | 2152.1 | 2155.8 | 2146.2 | 2126.6 | 2112.3 | 2108.5 | 2157.4 | 2124.3 | 2201.1 | 2279.9 | 2348.6 |
| 17° | 2148.5 | 2151.6 | 2141.4 | 2120.2 | 2099.5 | 2093.7 | 2148.7 | 2112.9 | 2193.7 | 2279.0 | 2356.6 |
| 18° | 2142.5 | 2145.7 | 2133.7 | 2111.4 | 2086.7 | 2076.5 | 2133.7 | 2098.7 | 2190.0 | 2279.0 | 2364.9 |
| 19° | 2136.5 | 2143.5 | 2129.9 | 2105.3 | 2072.7 | 2060.8 | 2112.6 | 2087.6 | 2183.1 | 2277.7 | 2372.2 |
| 20° | 2135.3 | 2141.8 | 2124.1 | 2095.0 | 2063.9 | 2045.5 | 2084.2 | 2071.2 | 2175.6 | 2276.8 | 2374.1 |
| 21° | 2133.4 | 2139.6 | 2121.0 | 2086.2 | 2052.3 | 2030.6 | 2052.3 | 2058.2 | 2170.0 | 2277.1 | 2379.8 |
| 22° | 2131.2 | 2139.1 | 2118.8 | 2079.0 | 2038.6 | 2012.1 | 2020.7 | 2044.0 | 2159.7 | 2272.4 | 2383.6 |
| 23° | 2131.4 | 2141.3 | 2116.5 | 2073.5 | 2025.0 | 1989.9 | 1993.9 | 2032.1 | 2149.5 | 2269.3 | 2388.4 |
| 24° | 2129.5 | 2141.3 | 2115.7 | 2063.4 | 2011.6 | 1971.4 | 1970.2 | 2019.7 | 2135.5 | 2262.8 | 2392.3 |
| 25° | 2128.4 | 2142.1 | 2114.8 | 2059.2 | 2000.5 | 1955.4 | 1946.8 | 2012.6 | 2120.4 | 2255.9 | 2394.0 |
| 26° | 2131.2 | 2143.5 | 2111.7 | 2052.7 | 1987.9 | 1934.8 | 1924.4 | 2005.9 | 2106.3 | 2248.2 | 2396.8 |
| 27° | 2130.3 | 2145.0 | 2112.6 | 2048.6 | 1975.3 | 1913.5 | 1900.7 | 1996.2 | 2087.4 | 2242.8 | 2398.8 |
| 28° | 2132.1 | 2149.2 | 2112.6 | 2042.0 | 1961.3 | 1891.8 | 1880.0 | 1986.5 | 2068.1 | 2230.7 | 2400.2 |
| 29° | 2136.8 | 2153.4 | 2113.5 | 2034.6 | 1949.6 | 1873.9 | 1857.0 | 1972.9 | 2047.8 | 2222.1 | 2403.3 |
| 30° | 2137.7 | 2158.0 | 2116.9 | 2029.9 | 1936.5 | 1852.0 | 1830.6 | 1951.0 | 2025.3 | 2210.0 | 2407.7 |
| 31° | 2146.6 | 2165.3 | 2118.1 | 2028.1 | 1924.2 | 1832.7 | 1802.8 | 1926.3 | 2001.6 | 2200.0 | 2409.8 |
| 32° | 2150.0 | 2171.4 | 2124.1 | 2022.6 | 1910.4 | 1810.4 | 1777.4 | 1895.7 | 1980.2 | 2190.8 | 2408.1 |
| 33° | 2151.9 | 2173.0 | 2124.9 | 2021.1 | 1894.3 | 1789.0 | 1747.5 | 1858.6 | 1955.8 | 2177.8 | 2412.9 |
| 34° | 2151.7 | 2171.6 | 2123.5 | 2018.9 | 1884.1 | 1767.4 | 1721.6 | 1819.0 | 1931.6 | 2166.7 | 2410.7 |
| 35° | 2152.1 | 2179.5 | 2121.3 | 2015.3 | 1869.0 | 1746.9 | 1693.3 | 1778.7 | 1906.2 | 2155.3 | 2414.0 |
| 36° | 2160.7 | 2190.0 | 2123.1 | 2008.1 | 1856.6 | 1724.8 | 1663.6 | 1737.8 | 1881.1 | 2148.7 | 2415.7 |
| 37° | 2171.7 | 2203.5 | 2131.8 | 1998.3 | 1844.4 | 1702.8 | 1632.8 | 1702.8 | 1856.0 | 2136.2 | 2419.2 |
| 38° | 2179.6 | 2211.9 | 2140.9 | 1996.2 | 1831.4 | 1679.6 | 1604.2 | 1665.7 | 1832.1 | 2130.2 | 2419.3 |
| 39° | 2183.1 | 2213.3 | 2146.9 | 1994.7 | 1815.1 | 1655.2 | 1575.6 | 1630.5 | 1807.2 | 2121.1 | 2420.2 |
| 40° | 2184.9 | 2215.4 | 2145.7 | 1991.4 | 1796.8 | 1632.9 | 1547.0 | 1593.6 | 1780.3 | 2112.7 | 2418.2 |
| 41° | 2188.0 | 2218.9 | 2145.0 | 1988.1 | 1782.6 | 1611.3 | 1511.8 | 1559.4 | 1754.0 | 2103.2 | 2420.8 |
| 42° | 2191.1 | 2223.1 | 2152.0 | 1983.0 | 1770.1 | 1589.6 | 1477.4 | 1523.6 | 1727.8 | 2098.3 | 2415.5 |
| 43° | 2194.3 | 2222.6 | 2153.4 | 1982.7 | 1760.5 | 1567.9 | 1441.4 | 1485.8 | 1702.8 | 2095.2 | 2411.3 |
| 44° | 2189.6 | 2215.2 | 2153.0 | 1982.6 | 1750.0 | 1539.7 | 1406.8 | 1447.9 | 1674.8 | 2093.7 | 2401.6 |



REPORT NUMBER: P1449895

CATALOG NUMBER: TWC60_T2_48W_5000K

CANDELA DISTRIBUTION (continued):

| | 165° | 180° | 195° | 210° | 225° | 240° | 255° | 270° | 285° | 300° | 315° |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 45° | 2180.7 | 2205.6 | 2145.8 | 1980.4 | 1731.2 | 1509.1 | 1372.0 | 1409.6 | 1646.8 | 2091.8 | 2389.6 |
| 46° | 2167.4 | 2191.7 | 2133.5 | 1977.2 | 1714.9 | 1479.1 | 1337.3 | 1371.2 | 1621.4 | 2088.2 | 2373.7 |
| 47° | 2153.8 | 2179.0 | 2118.8 | 1970.2 | 1700.3 | 1450.3 | 1303.0 | 1330.6 | 1594.4 | 2084.3 | 2353.9 |
| 48° | 2138.6 | 2160.0 | 2104.4 | 1960.9 | 1687.3 | 1427.6 | 1267.7 | 1292.0 | 1569.7 | 2082.3 | 2329.4 |
| 49° | 2120.6 | 2142.2 | 2086.6 | 1948.4 | 1671.4 | 1400.1 | 1232.1 | 1249.7 | 1544.0 | 2079.2 | 2305.9 |
| 50° | 2101.4 | 2122.1 | 2070.4 | 1934.2 | 1654.2 | 1371.5 | 1195.2 | 1207.8 | 1517.3 | 2074.7 | 2277.2 |
| 51° | 2079.9 | 2099.0 | 2051.3 | 1914.2 | 1634.6 | 1343.8 | 1157.8 | 1167.6 | 1493.2 | 2069.7 | 2244.1 |
| 52° | 2058.8 | 2074.9 | 2029.3 | 1897.3 | 1616.6 | 1316.7 | 1116.9 | 1125.9 | 1468.1 | 2063.9 | 2201.1 |
| 53° | 2030.2 | 2041.6 | 2005.2 | 1876.7 | 1602.4 | 1292.3 | 1075.4 | 1084.5 | 1445.4 | 2053.9 | 2155.6 |
| 54° | 1999.7 | 2007.6 | 1980.2 | 1856.7 | 1588.4 | 1263.4 | 1033.8 | 1041.3 | 1425.6 | 2039.1 | 2101.2 |
| 55° | 1964.8 | 1969.2 | 1947.0 | 1834.1 | 1574.3 | 1232.8 | 996.7 | 997.5 | 1406.9 | 2021.6 | 2041.2 |
| 56° | 1924.9 | 1924.2 | 1911.0 | 1811.9 | 1555.5 | 1197.3 | 957.4 | 953.1 | 1392.3 | 1995.1 | 1974.3 |
| 57° | 1879.3 | 1876.5 | 1868.9 | 1784.4 | 1534.8 | 1163.3 | 915.6 | 908.5 | 1382.6 | 1969.4 | 1894.1 |
| 58° | 1828.4 | 1819.4 | 1821.8 | 1758.9 | 1515.4 | 1127.7 | 873.8 | 863.9 | 1370.5 | 1938.0 | 1808.3 |
| 59° | 1773.6 | 1760.6 | 1771.0 | 1727.4 | 1496.9 | 1094.5 | 833.4 | 820.3 | 1360.8 | 1900.9 | 1708.1 |
| 60° | 1713.5 | 1669.6 | 1715.1 | 1694.8 | 1472.2 | 1060.6 | 793.4 | 777.7 | 1348.6 | 1859.4 | 1598.8 |
| 61° | 1604.7 | 1578.5 | 1619.6 | 1654.4 | 1446.7 | 1028.0 | 753.6 | 735.3 | 1336.8 | 1808.4 | 1479.3 |
| 62° | 1496.0 | 1487.3 | 1524.2 | 1601.6 | 1419.7 | 993.3 | 712.3 | 692.9 | 1331.8 | 1752.0 | 1348.2 |
| 63° | 1387.4 | 1345.6 | 1428.5 | 1548.8 | 1386.3 | 956.6 | 669.2 | 649.3 | 1326.5 | 1680.7 | 1205.4 |
| 64° | 1276.7 | 1262.3 | 1297.8 | 1494.9 | 1353.8 | 923.1 | 626.4 | 605.4 | 1323.9 | 1600.8 | 1047.7 |
| 65° | 1217.4 | 1213.8 | 1220.1 | 1390.5 | 1316.4 | 888.1 | 583.8 | 564.6 | 1318.2 | 1505.4 | 869.5 |
| 66° | 1172.8 | 1168.6 | 1168.6 | 1264.2 | 1278.3 | 851.8 | 542.5 | 524.3 | 1314.8 | 1393.1 | 689.6 |
| 67° | 1128.0 | 1118.1 | 1126.9 | 1175.6 | 1234.4 | 815.6 | 502.3 | 484.1 | 1312.4 | 1265.6 | 509.7 |
| 68° | 1076.1 | 1059.6 | 1082.7 | 1117.5 | 1179.7 | 778.4 | 462.5 | 441.1 | 1297.7 | 1108.4 | 329.8 |
| 69° | 1019.5 | 994.2 | 1031.6 | 1061.4 | 1097.0 | 739.7 | 423.8 | 399.6 | 1265.6 | 925.8 | 198.2 |
| 70° | 960.5 | 929.3 | 980.7 | 1008.8 | 1022.0 | 702.8 | 386.4 | 359.5 | 1209.5 | 714.7 | 121.0 |
| 71° | 893.6 | 855.8 | 921.5 | 960.0 | 976.7 | 665.4 | 352.0 | 319.8 | 1128.1 | 502.8 | 90.1 |
| 72° | 825.6 | 789.1 | 859.6 | 918.8 | 938.4 | 629.3 | 319.9 | 283.0 | 1051.9 | 290.8 | 80.2 |
| 73° | 760.7 | 726.8 | 793.2 | 880.3 | 893.2 | 590.1 | 286.9 | 247.9 | 989.9 | 159.0 | 72.5 |
| 74° | 692.3 | 657.4 | 724.8 | 840.8 | 849.0 | 533.3 | 256.8 | 216.6 | 890.8 | 94.4 | 64.8 |
| 75° | 624.9 | 586.8 | 655.7 | 799.7 | 804.3 | 486.8 | 227.8 | 186.1 | 776.6 | 80.5 | 57.1 |
| 76° | 552.6 | 507.2 | 589.1 | 754.2 | 759.7 | 452.6 | 202.6 | 158.4 | 617.6 | 67.6 | 49.0 |
| 77° | 479.0 | 431.1 | 520.0 | 696.7 | 713.7 | 419.6 | 177.5 | 135.3 | 457.0 | 54.6 | 42.0 |
| 78° | 412.0 | 358.1 | 457.9 | 626.9 | 664.2 | 385.2 | 152.4 | 116.1 | 296.5 | 49.9 | 35.5 |
| 79° | 339.5 | 269.5 | 393.2 | 552.0 | 616.4 | 352.9 | 131.3 | 99.7 | 165.7 | 47.6 | 29.6 |
| 80° | 245.2 | 180.9 | 323.4 | 483.5 | 565.8 | 322.6 | 107.8 | 83.1 | 89.6 | 43.5 | 25.2 |
| 81° | 150.9 | 93.0 | 212.8 | 435.4 | 510.6 | 291.5 | 87.5 | 67.7 | 72.8 | 35.5 | 22.3 |
| 82° | 58.6 | 30.4 | 102.8 | 397.2 | 458.9 | 260.8 | 71.2 | 52.4 | 56.7 | 28.1 | 19.9 |
| 83° | 42.9 | 24.0 | 72.5 | 279.0 | 401.4 | 229.0 | 55.8 | 37.0 | 40.7 | 20.3 | 17.7 |
| 84° | 27.1 | 17.6 | 42.2 | 160.7 | 357.3 | 194.2 | 42.6 | 26.5 | 39.4 | 14.2 | 15.6 |
| 85° | 11.6 | 11.2 | 12.2 | 42.6 | 315.6 | 159.4 | 31.0 | 18.4 | 34.2 | 11.1 | 12.9 |
| 86° | 7.1 | 6.6 | 7.7 | 23.6 | 197.5 | 124.7 | 22.5 | 11.9 | 25.3 | 8.7 | 8.9 |
| 87° | 3.4 | 3.3 | 3.5 | 4.7 | 80.8 | 93.0 | 13.9 | 8.1 | 15.0 | 5.8 | 5.5 |
| 88° | 1.3 | 1.3 | 1.3 | 1.3 | 40.0 | 61.9 | 5.3 | 4.3 | 10.0 | 2.9 | 2.1 |
| 89° | 0.3 | 0.3 | 0.3 | 0.3 | 0.5 | 30.8 | 0.8 | 0.6 | 5.1 | 0.6 | 0.6 |



REPORT NUMBER: P1449895
 CATALOG NUMBER: TWC60_T2_48W_5000K

CANDELA DISTRIBUTION (continued):

| | 165° | 180° | 195° | 210° | 225° | 240° | 255° | 270° | 285° | 300° | 315° |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 90° | 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 |
| 92° | 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 |
| 94° | 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 |
| 96° | 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 |
| 98° | 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 |
| 100° | 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 |
| 102° | 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 |
| 104° | 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 |
| 106° | 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 |
| 108° | 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 |
| 110° | 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 |
| 112° | 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 |
| 114° | 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 |
| 116° | 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 |
| 118° | 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 |
| 120° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 121° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 122° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 123° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 124° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 125° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 126° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 127° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 128° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 129° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 130° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 131° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 132° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 133° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 134° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



REPORT NUMBER: P1449895
 CATALOG NUMBER: TWC60_T2_48W_5000K

CANDELA DISTRIBUTION (continued):

| | 165° | 180° | 195° | 210° | 225° | 240° | 255° | 270° | 285° | 300° | 315° |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 135° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 136° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 137° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 138° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 139° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 140° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 141° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 142° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 143° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 144° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 145° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 146° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 147° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 148° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 149° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 150° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 151° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 152° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 153° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 154° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 155° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 156° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 157° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 158° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 159° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 160° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 161° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 162° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 163° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 164° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 165° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 166° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 167° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 168° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 169° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 170° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 171° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 172° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 173° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 174° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 175° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 176° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 177° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 178° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 179° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



REPORT NUMBER: P1449895
CATALOG NUMBER: TWC60_T2_48W_5000K

CANDELA DISTRIBUTION (continued):

| | | | | | | | | | | | |
|------|------|------|------|------|------|------|------|------|------|------|------|
| | 165° | 180° | 195° | 210° | 225° | 240° | 255° | 270° | 285° | 300° | 315° |
| 180° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



REPORT NUMBER: P1449895
 CATALOG NUMBER: TWC60_T2_48W_5000K

CANDELA DISTRIBUTION (continued):

| | 330° | 345° | 360° |
|-----|--------|--------|--------|
| 0° | 2228.8 | 2228.8 | 2228.8 |
| 1° | 2241.9 | 2243.5 | 2243.0 |
| 2° | 2255.9 | 2258.1 | 2262.1 |
| 3° | 2268.0 | 2274.4 | 2277.2 |
| 4° | 2283.2 | 2289.6 | 2294.3 |
| 5° | 2294.9 | 2303.4 | 2308.6 |
| 6° | 2305.2 | 2316.3 | 2320.8 |
| 7° | 2315.1 | 2330.2 | 2332.9 |
| 8° | 2325.1 | 2341.0 | 2343.2 |
| 9° | 2333.7 | 2350.1 | 2356.0 |
| 10° | 2341.6 | 2360.2 | 2368.2 |
| 11° | 2351.1 | 2374.2 | 2382.5 |
| 12° | 2361.3 | 2390.1 | 2397.6 |
| 13° | 2374.2 | 2403.9 | 2411.0 |
| 14° | 2385.6 | 2421.3 | 2428.3 |
| 15° | 2398.8 | 2434.3 | 2445.7 |
| 16° | 2411.1 | 2450.0 | 2460.1 |
| 17° | 2421.4 | 2461.8 | 2474.8 |
| 18° | 2432.7 | 2478.8 | 2492.9 |
| 19° | 2444.3 | 2493.9 | 2509.2 |
| 20° | 2456.3 | 2508.2 | 2524.1 |
| 21° | 2468.9 | 2521.9 | 2541.1 |
| 22° | 2478.5 | 2540.4 | 2558.4 |
| 23° | 2487.6 | 2555.9 | 2576.1 |
| 24° | 2501.6 | 2571.3 | 2593.2 |
| 25° | 2511.2 | 2589.2 | 2607.2 |
| 26° | 2523.6 | 2601.8 | 2620.8 |
| 27° | 2535.1 | 2612.8 | 2637.7 |
| 28° | 2544.8 | 2628.5 | 2650.7 |
| 29° | 2551.1 | 2643.4 | 2666.9 |
| 30° | 2564.4 | 2655.0 | 2675.4 |
| 31° | 2573.1 | 2664.9 | 2687.7 |
| 32° | 2581.2 | 2673.6 | 2695.1 |
| 33° | 2589.1 | 2679.5 | 2703.2 |
| 34° | 2591.2 | 2682.5 | 2706.2 |
| 35° | 2598.5 | 2683.1 | 2704.5 |
| 36° | 2601.3 | 2679.5 | 2695.9 |
| 37° | 2597.5 | 2671.7 | 2686.6 |
| 38° | 2595.4 | 2660.5 | 2670.8 |
| 39° | 2587.4 | 2641.6 | 2651.8 |
| 40° | 2575.2 | 2620.9 | 2631.0 |
| 41° | 2557.5 | 2599.7 | 2608.0 |
| 42° | 2539.0 | 2569.6 | 2576.1 |
| 43° | 2515.6 | 2538.7 | 2535.3 |
| 44° | 2489.3 | 2498.9 | 2491.8 |



REPORT NUMBER: P1449895
CATALOG NUMBER: TWC60_T2_48W_5000K

CANDELA DISTRIBUTION (continued):

| | 330° | 345° | 360° |
|-----|--------|--------|--------|
| 45° | 2459.3 | 2451.6 | 2444.1 |
| 46° | 2423.8 | 2401.5 | 2392.9 |
| 47° | 2379.5 | 2347.3 | 2331.2 |
| 48° | 2333.7 | 2283.9 | 2264.5 |
| 49° | 2278.9 | 2211.8 | 2193.1 |
| 50° | 2219.1 | 2137.6 | 2115.3 |
| 51° | 2152.8 | 2059.2 | 2030.1 |
| 52° | 2079.5 | 1970.9 | 1940.1 |
| 53° | 2003.6 | 1875.6 | 1842.7 |
| 54° | 1915.0 | 1777.7 | 1742.1 |
| 55° | 1820.5 | 1673.2 | 1635.2 |
| 56° | 1718.9 | 1558.6 | 1520.7 |
| 57° | 1610.8 | 1438.4 | 1391.1 |
| 58° | 1493.6 | 1297.9 | 1235.4 |
| 59° | 1370.9 | 1132.7 | 1060.2 |
| 60° | 1229.4 | 953.8 | 878.9 |
| 61° | 1069.4 | 765.8 | 708.1 |
| 62° | 887.7 | 594.3 | 537.4 |
| 63° | 712.5 | 423.1 | 366.8 |
| 64° | 537.3 | 280.7 | 237.8 |
| 65° | 362.1 | 176.7 | 156.3 |
| 66° | 228.4 | 124.8 | 120.3 |
| 67° | 141.4 | 106.1 | 109.1 |
| 68° | 104.0 | 97.7 | 101.4 |
| 69° | 91.8 | 90.5 | 93.9 |
| 70° | 84.0 | 83.3 | 86.5 |
| 71° | 77.3 | 77.1 | 79.6 |
| 72° | 70.4 | 70.9 | 74.0 |
| 73° | 63.4 | 64.7 | 68.5 |
| 74° | 58.0 | 59.3 | 63.0 |
| 75° | 51.6 | 53.6 | 57.4 |
| 76° | 44.7 | 48.5 | 52.6 |
| 77° | 38.9 | 44.5 | 49.0 |
| 78° | 34.7 | 41.6 | 46.7 |
| 79° | 31.6 | 39.5 | 44.8 |
| 80° | 29.2 | 37.5 | 42.3 |
| 81° | 27.2 | 35.0 | 39.5 |
| 82° | 25.0 | 32.1 | 36.1 |
| 83° | 22.5 | 27.5 | 29.8 |
| 84° | 18.1 | 22.3 | 23.6 |
| 85° | 14.2 | 16.5 | 16.9 |
| 86° | 9.2 | 11.9 | 11.8 |
| 87° | 6.4 | 8.1 | 8.1 |
| 88° | 3.5 | 4.3 | 4.3 |
| 89° | 0.6 | 0.6 | 0.6 |



REPORT NUMBER: P1449895
CATALOG NUMBER: TWC60_T2_48W_5000K

CANDELA DISTRIBUTION (continued):

| | 330° | 345° | 360° |
|------|------|------|------|
| 90° | 0.0 | 0.0 | 0.0 |
| 91° | 0.0 | 0.0 | 0.0 |
| 92° | 0.0 | 0.0 | 0.0 |
| 93° | 0.0 | 0.0 | 0.0 |
| 94° | 0.0 | 0.0 | 0.0 |
| 95° | 0.0 | 0.0 | 0.0 |
| 96° | 0.0 | 0.0 | 0.0 |
| 97° | 0.0 | 0.0 | 0.0 |
| 98° | 0.0 | 0.0 | 0.0 |
| 99° | 0.0 | 0.0 | 0.0 |
| 100° | 0.0 | 0.0 | 0.0 |
| 101° | 0.0 | 0.0 | 0.0 |
| 102° | 0.0 | 0.0 | 0.0 |
| 103° | 0.0 | 0.0 | 0.0 |
| 104° | 0.0 | 0.0 | 0.0 |
| 105° | 0.0 | 0.0 | 0.0 |
| 106° | 0.0 | 0.0 | 0.0 |
| 107° | 0.0 | 0.0 | 0.0 |
| 108° | 0.0 | 0.0 | 0.0 |
| 109° | 0.0 | 0.0 | 0.0 |
| 110° | 0.0 | 0.0 | 0.0 |
| 111° | 0.0 | 0.0 | 0.0 |
| 112° | 0.0 | 0.0 | 0.0 |
| 113° | 0.0 | 0.0 | 0.0 |
| 114° | 0.0 | 0.0 | 0.0 |
| 115° | 0.0 | 0.0 | 0.0 |
| 116° | 0.0 | 0.0 | 0.0 |
| 117° | 0.0 | 0.0 | 0.0 |
| 118° | 0.0 | 0.0 | 0.0 |
| 119° | 0.0 | 0.0 | 0.0 |
| 120° | 0.0 | 0.0 | 0.0 |
| 121° | 0.0 | 0.0 | 0.0 |
| 122° | 0.0 | 0.0 | 0.0 |
| 123° | 0.0 | 0.0 | 0.0 |
| 124° | 0.0 | 0.0 | 0.0 |
| 125° | 0.0 | 0.0 | 0.0 |
| 126° | 0.0 | 0.0 | 0.0 |
| 127° | 0.0 | 0.0 | 0.0 |
| 128° | 0.0 | 0.0 | 0.0 |
| 129° | 0.0 | 0.0 | 0.0 |
| 130° | 0.0 | 0.0 | 0.0 |
| 131° | 0.0 | 0.0 | 0.0 |
| 132° | 0.0 | 0.0 | 0.0 |
| 133° | 0.0 | 0.0 | 0.0 |
| 134° | 0.0 | 0.0 | 0.0 |



REPORT NUMBER: P1449895
CATALOG NUMBER: TWC60_T2_48W_5000K

CANDELA DISTRIBUTION (continued):

| | 330° | 345° | 360° |
|------|------|------|------|
| 135° | 0.0 | 0.0 | 0.0 |
| 136° | 0.0 | 0.0 | 0.0 |
| 137° | 0.0 | 0.0 | 0.0 |
| 138° | 0.0 | 0.0 | 0.0 |
| 139° | 0.0 | 0.0 | 0.0 |
| 140° | 0.0 | 0.0 | 0.0 |
| 141° | 0.0 | 0.0 | 0.0 |
| 142° | 0.0 | 0.0 | 0.0 |
| 143° | 0.0 | 0.0 | 0.0 |
| 144° | 0.0 | 0.0 | 0.0 |
| 145° | 0.0 | 0.0 | 0.0 |
| 146° | 0.0 | 0.0 | 0.0 |
| 147° | 0.0 | 0.0 | 0.0 |
| 148° | 0.0 | 0.0 | 0.0 |
| 149° | 0.0 | 0.0 | 0.0 |
| 150° | 0.0 | 0.0 | 0.0 |
| 151° | 0.0 | 0.0 | 0.0 |
| 152° | 0.0 | 0.0 | 0.0 |
| 153° | 0.0 | 0.0 | 0.0 |
| 154° | 0.0 | 0.0 | 0.0 |
| 155° | 0.0 | 0.0 | 0.0 |
| 156° | 0.0 | 0.0 | 0.0 |
| 157° | 0.0 | 0.0 | 0.0 |
| 158° | 0.0 | 0.0 | 0.0 |
| 159° | 0.0 | 0.0 | 0.0 |
| 160° | 0.0 | 0.0 | 0.0 |
| 161° | 0.0 | 0.0 | 0.0 |
| 162° | 0.0 | 0.0 | 0.0 |
| 163° | 0.0 | 0.0 | 0.0 |
| 164° | 0.0 | 0.0 | 0.0 |
| 165° | 0.0 | 0.0 | 0.0 |
| 166° | 0.0 | 0.0 | 0.0 |
| 167° | 0.0 | 0.0 | 0.0 |
| 168° | 0.0 | 0.0 | 0.0 |
| 169° | 0.0 | 0.0 | 0.0 |
| 170° | 0.0 | 0.0 | 0.0 |
| 171° | 0.0 | 0.0 | 0.0 |
| 172° | 0.0 | 0.0 | 0.0 |
| 173° | 0.0 | 0.0 | 0.0 |
| 174° | 0.0 | 0.0 | 0.0 |
| 175° | 0.0 | 0.0 | 0.0 |
| 176° | 0.0 | 0.0 | 0.0 |
| 177° | 0.0 | 0.0 | 0.0 |
| 178° | 0.0 | 0.0 | 0.0 |
| 179° | 0.0 | 0.0 | 0.0 |

Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report



REPORT NUMBER: P1449895
CATALOG NUMBER: TWC60_T2_48W_5000K

CANDELA DISTRIBUTION (continued):

| | | | |
|------|------|------|------|
| | 330° | 345° | 360° |
| 180° | 0.0 | 0.0 | 0.0 |

LM-79-2019: Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

Report Prepared for

Cooper Lighting Solutions

Lumark

Report Number: SP1-2601-659-3

Test Date: 02/12/2026

Luminaire Tested: MWP2460W34VDDKYYAD-T4-24W-5000K

Data in this report applies to families of products including ;MWP2460W34VDDKYYAD

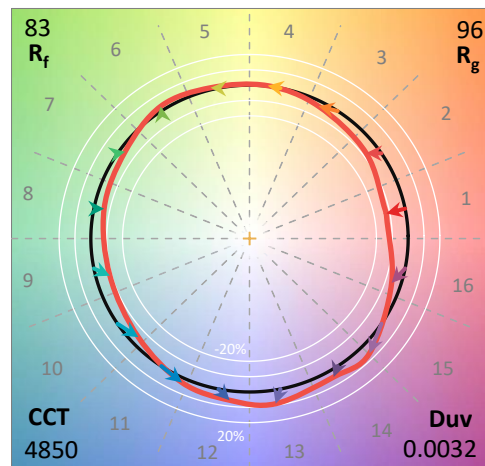
Test Information

Test Method: LM-79-2019
 Report Number: SP1-2601-659-3
 Test Lab: COOPER LIGHTING SOLUTIONS
 Photometer: SP1 - 76IN SPHERE
 Measurement Geometry: 4π
 Issue Date: 02/16/2026
 Manufacturer: COOPER LIGHTING SOLUTIONS
 Product Line: Lumark
 Catalog Number: **MWP2460W34VDDKYYAD-T4-24W-5000K**
 Description: Mester Wedge, at T4 beam setting, 24W output, 5000K

Spectral Parameters

CCT (K): 4850
 CIE u': 0.2108
 CIE v': 0.4905
 Duv: 0.0032
 CIE x: 0.3503
 CIE y: 0.3623
 CIE z: 0.2875
 Peak Wavelength (nm): 452
 Dominant Wavelength (nm): 571
 Purity: 13.81051
 R_f: 83.1
 R_g: 95.8

| | | | |
|-----------|------|------|------|
| CRI (Ra): | 82.6 | | |
| R1: | 80.9 | R9: | 8.5 |
| R2: | 87.6 | R10: | 69.7 |
| R3: | 92.0 | R11: | 80.6 |
| R4: | 81.9 | R12: | 52.2 |
| R5: | 80.4 | R13: | 82.7 |
| R6: | 82.0 | R14: | 95.7 |
| R7: | 88.2 | R15: | 74.9 |
| R8: | 67.7 | | |



Test Conditions

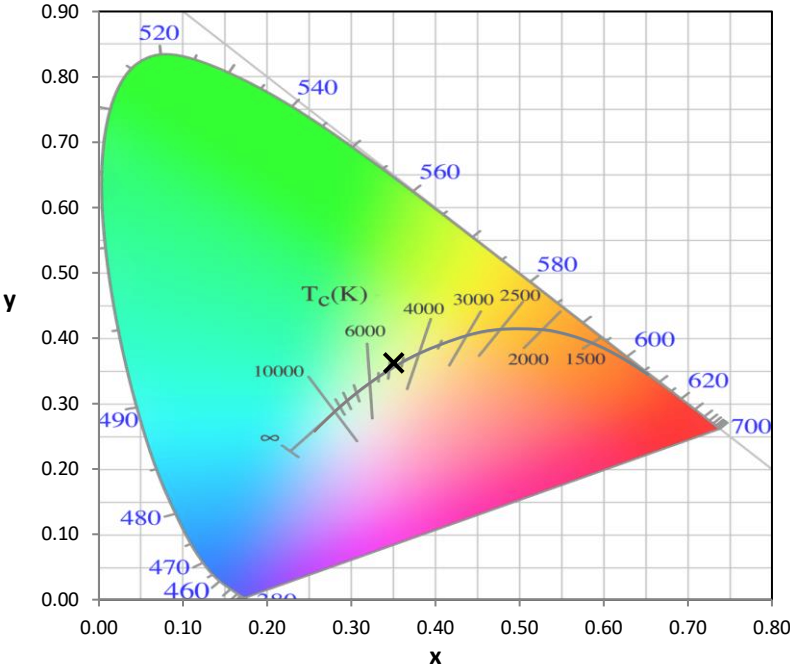
Stabilization Time: 25M
 Operation Time: 1H 25M
 Sphere Temperature (°C): 24.8

REPORT NUMBER: SP1-2601-659-3

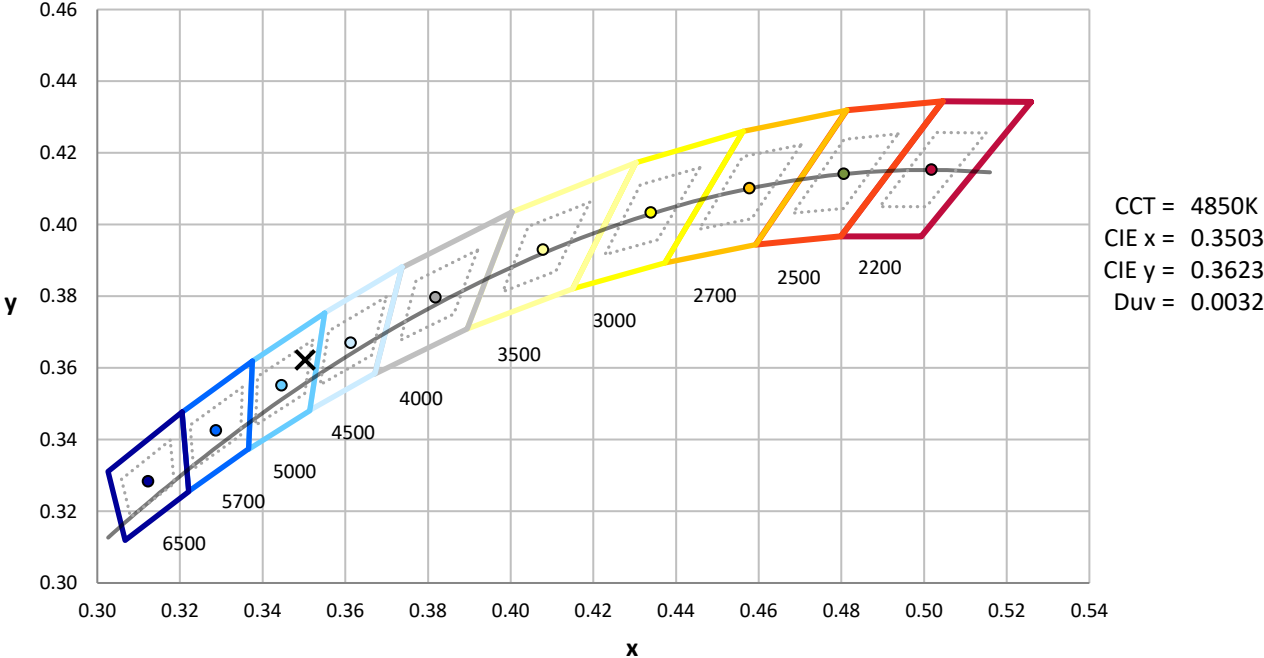
| Measurement and Test Equipment | | | |
|--------------------------------|-----------------------|------------------|----------------------|
| Instrument | Identification Number | Calibration Date | Calibration Due Date |
| Photometer | 76INCH SPHERE IN0058 | 12/16/2025 | 6/16/2026 |
| Power Meter | XITRON INXT2011004 | 10/21/2025 | 10/21/2026 |
| AC Power Source | CHROMA 61603 IN0063 | 10/21/2025 | 10/21/2026 |
| DC Power Source | AGILENT E3634A IN0208 | 10/21/2025 | 10/21/2026 |
| Sphere Thermometer | ONSET IN0085 | 10/21/2025 | 10/21/2026 |
| Room Thermometer | ONSET IN0046 | 10/21/2025 | 10/21/2026 |

REPORT NUMBER: SP1-2601-659-3

CIE 1931 Chromaticity Diagram



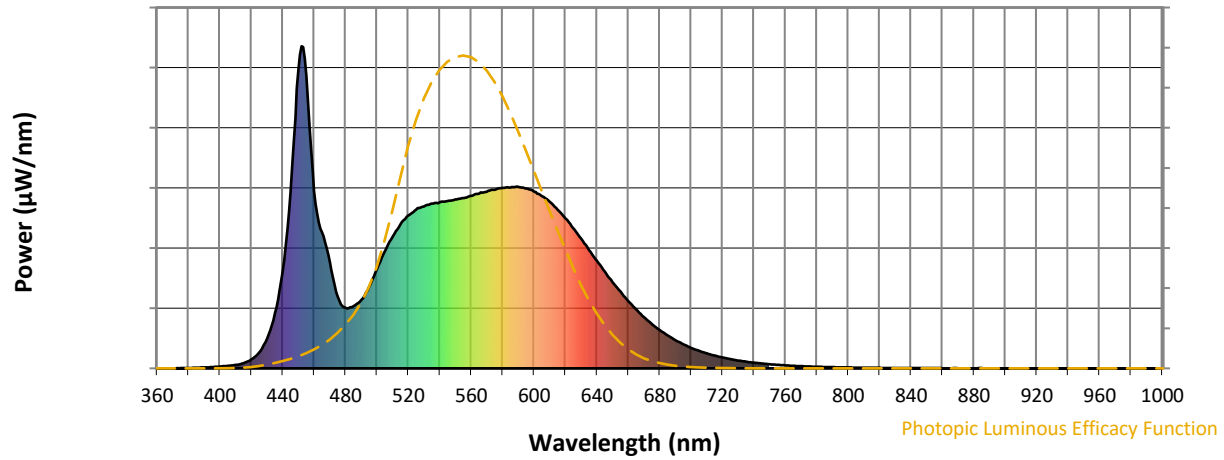
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 5000K 4-step quadrangle

REPORT NUMBER: SP1-2601-659-3

Photopic Flux vs. Wavelength

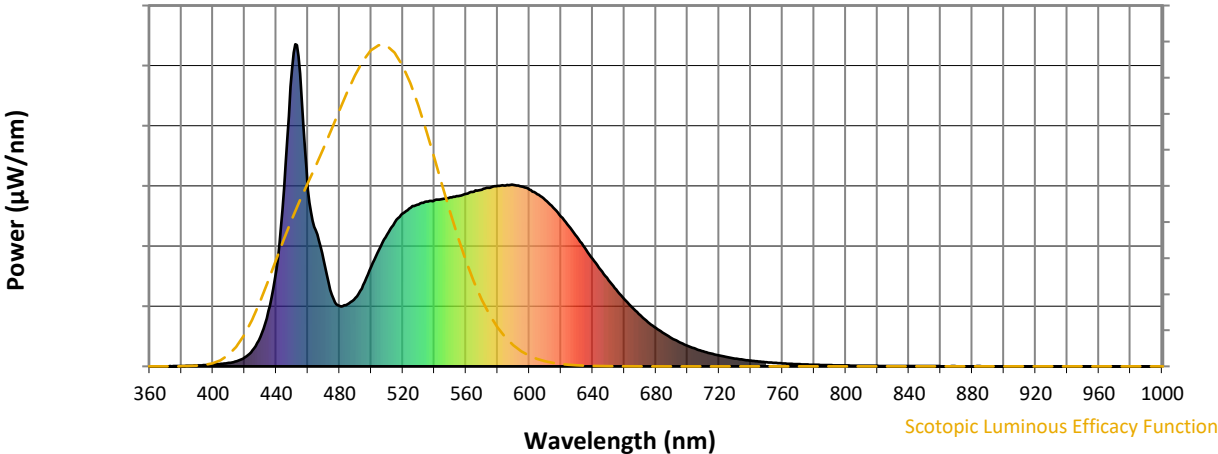


Photopic Lumens: NR

| λ (nm) | Power W [^] /nm | Lumens (φ/nm) | λ (nm) | Power W [^] /nm | Lumens (φ/nm) | λ (nm) | Power W [^] /nm | Lumens (φ/nm) | λ (nm) | Power W [^] /nm | Lumens (φ/nm) | λ (nm) | Power W [^] /nm | Lumens (φ/nm) |
|--------|--------------------------|---------------|--------|--------------------------|---------------|--------|--------------------------|---------------|--------|--------------------------|---------------|--------|--------------------------|---------------|
| 360 | 0 | NR | 490 | 212 | NR | 620 | 465 | NR | 750 | 13 | NR | 880 | 0 | NR |
| 365 | 0 | NR | 495 | 253 | NR | 625 | 436 | NR | 755 | 11 | NR | 885 | 1 | NR |
| 370 | 0 | NR | 500 | 309 | NR | 630 | 403 | NR | 760 | 9 | NR | 890 | 0 | NR |
| 375 | 1 | NR | 505 | 363 | NR | 635 | 368 | NR | 765 | 8 | NR | 895 | 0 | NR |
| 380 | 1 | NR | 510 | 409 | NR | 640 | 334 | NR | 770 | 7 | NR | 900 | 0 | NR |
| 385 | 2 | NR | 515 | 448 | NR | 645 | 300 | NR | 775 | 6 | NR | 905 | 0 | NR |
| 390 | 3 | NR | 520 | 475 | NR | 650 | 268 | NR | 780 | 5 | NR | 910 | 0 | NR |
| 395 | 4 | NR | 525 | 493 | NR | 655 | 238 | NR | 785 | 4 | NR | 915 | 0 | NR |
| 400 | 6 | NR | 530 | 503 | NR | 660 | 209 | NR | 790 | 4 | NR | 920 | 0 | NR |
| 405 | 8 | NR | 535 | 512 | NR | 665 | 183 | NR | 795 | 3 | NR | 925 | 0 | NR |
| 410 | 11 | NR | 540 | 515 | NR | 670 | 159 | NR | 800 | 3 | NR | 930 | 0 | NR |
| 415 | 16 | NR | 545 | 520 | NR | 675 | 138 | NR | 805 | 2 | NR | 935 | 0 | NR |
| 420 | 28 | NR | 550 | 524 | NR | 680 | 119 | NR | 810 | 2 | NR | 940 | 0 | NR |
| 425 | 50 | NR | 555 | 528 | NR | 685 | 102 | NR | 815 | 2 | NR | 945 | 0 | NR |
| 430 | 92 | NR | 560 | 535 | NR | 690 | 88 | NR | 820 | 2 | NR | 950 | 0 | NR |
| 435 | 171 | NR | 565 | 542 | NR | 695 | 75 | NR | 825 | 1 | NR | 955 | 0 | NR |
| 440 | 300 | NR | 570 | 548 | NR | 700 | 64 | NR | 830 | 1 | NR | 960 | 0 | NR |
| 445 | 553 | NR | 575 | 555 | NR | 705 | 55 | NR | 835 | 1 | NR | 965 | 0 | NR |
| 450 | 925 | NR | 580 | 560 | NR | 710 | 46 | NR | 840 | 1 | NR | 970 | 0 | NR |
| 455 | 909 | NR | 585 | 562 | NR | 715 | 40 | NR | 845 | 1 | NR | 975 | 0 | NR |
| 460 | 550 | NR | 590 | 563 | NR | 720 | 34 | NR | 850 | 1 | NR | 980 | 0 | NR |
| 465 | 422 | NR | 595 | 558 | NR | 725 | 29 | NR | 855 | 1 | NR | 985 | 0 | NR |
| 470 | 328 | NR | 600 | 548 | NR | 730 | 24 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 223 | NR | 605 | 534 | NR | 735 | 21 | NR | 865 | 0 | NR | 995 | 0 | NR |
| 480 | 188 | NR | 610 | 516 | NR | 740 | 18 | NR | 870 | 0 | NR | 1000 | 0 | NR |
| 485 | 193 | NR | 615 | 492 | NR | 745 | 15 | NR | 875 | 0 | NR | | | |

REPORT NUMBER: SP1-2601-659-3

Scotopic Flux vs. Wavelength



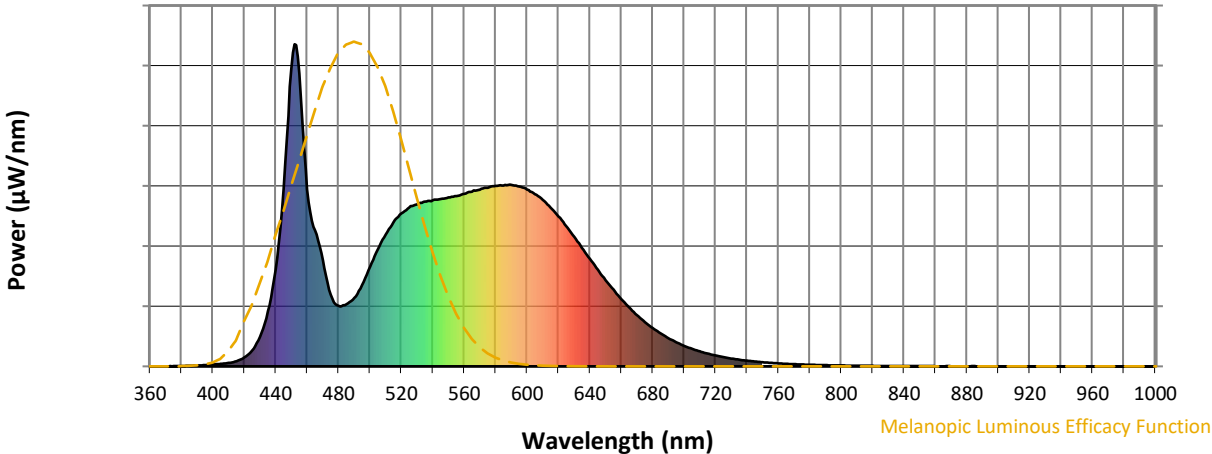
Scotopic Lumens: NR

S/P: 1.9

| λ (nm) | Power W [^] /nm | Lumens (φ/nm) | λ (nm) | Power W [^] /nm | Lumens (φ/nm) | λ (nm) | Power W [^] /nm | Lumens (φ/nm) | λ (nm) | Power W [^] /nm | Lumens (φ/nm) | λ (nm) | Power W [^] /nm | Lumens (φ/nm) |
|--------|--------------------------|---------------|--------|--------------------------|---------------|--------|--------------------------|---------------|--------|--------------------------|---------------|--------|--------------------------|---------------|
| 360 | 0 | NR | 490 | 212 | NR | 620 | 465 | NR | 750 | 13 | NR | 880 | 0 | NR |
| 365 | 0 | NR | 495 | 253 | NR | 625 | 436 | NR | 755 | 11 | NR | 885 | 1 | NR |
| 370 | 0 | NR | 500 | 309 | NR | 630 | 403 | NR | 760 | 9 | NR | 890 | 0 | NR |
| 375 | 1 | NR | 505 | 363 | NR | 635 | 368 | NR | 765 | 8 | NR | 895 | 0 | NR |
| 380 | 1 | NR | 510 | 409 | NR | 640 | 334 | NR | 770 | 7 | NR | 900 | 0 | NR |
| 385 | 2 | NR | 515 | 448 | NR | 645 | 300 | NR | 775 | 6 | NR | 905 | 0 | NR |
| 390 | 3 | NR | 520 | 475 | NR | 650 | 268 | NR | 780 | 5 | NR | 910 | 0 | NR |
| 395 | 4 | NR | 525 | 493 | NR | 655 | 238 | NR | 785 | 4 | NR | 915 | 0 | NR |
| 400 | 6 | NR | 530 | 503 | NR | 660 | 209 | NR | 790 | 4 | NR | 920 | 0 | NR |
| 405 | 8 | NR | 535 | 512 | NR | 665 | 183 | NR | 795 | 3 | NR | 925 | 0 | NR |
| 410 | 11 | NR | 540 | 515 | NR | 670 | 159 | NR | 800 | 3 | NR | 930 | 0 | NR |
| 415 | 16 | NR | 545 | 520 | NR | 675 | 138 | NR | 805 | 2 | NR | 935 | 0 | NR |
| 420 | 28 | NR | 550 | 524 | NR | 680 | 119 | NR | 810 | 2 | NR | 940 | 0 | NR |
| 425 | 50 | NR | 555 | 528 | NR | 685 | 102 | NR | 815 | 2 | NR | 945 | 0 | NR |
| 430 | 92 | NR | 560 | 535 | NR | 690 | 88 | NR | 820 | 2 | NR | 950 | 0 | NR |
| 435 | 171 | NR | 565 | 542 | NR | 695 | 75 | NR | 825 | 1 | NR | 955 | 0 | NR |
| 440 | 300 | NR | 570 | 548 | NR | 700 | 64 | NR | 830 | 1 | NR | 960 | 0 | NR |
| 445 | 553 | NR | 575 | 555 | NR | 705 | 55 | NR | 835 | 1 | NR | 965 | 0 | NR |
| 450 | 925 | NR | 580 | 560 | NR | 710 | 46 | NR | 840 | 1 | NR | 970 | 0 | NR |
| 455 | 909 | NR | 585 | 562 | NR | 715 | 40 | NR | 845 | 1 | NR | 975 | 0 | NR |
| 460 | 550 | NR | 590 | 563 | NR | 720 | 34 | NR | 850 | 1 | NR | 980 | 0 | NR |
| 465 | 422 | NR | 595 | 558 | NR | 725 | 29 | NR | 855 | 1 | NR | 985 | 0 | NR |
| 470 | 328 | NR | 600 | 548 | NR | 730 | 24 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 223 | NR | 605 | 534 | NR | 735 | 21 | NR | 865 | 0 | NR | 995 | 0 | NR |
| 480 | 188 | NR | 610 | 516 | NR | 740 | 18 | NR | 870 | 0 | NR | 1000 | 0 | NR |
| 485 | 193 | NR | 615 | 492 | NR | 745 | 15 | NR | 875 | 0 | NR | | | |

REPORT NUMBER: SP1-2601-659-3

Melanopic Flux vs. Wavelength



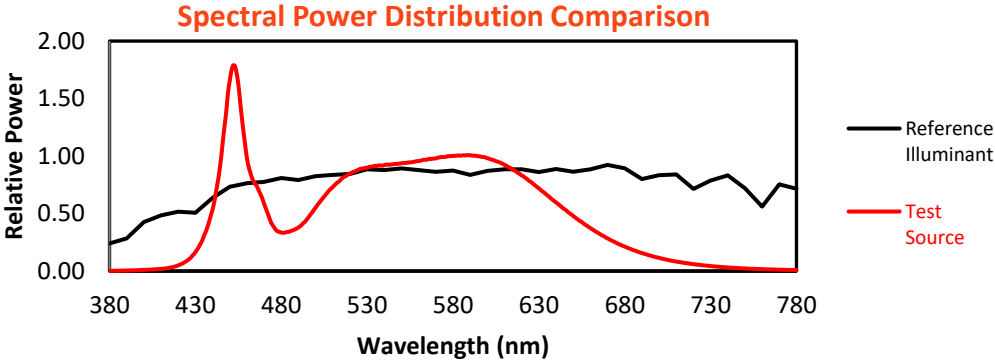
Melanopic Lumens: NR

M/P: 4

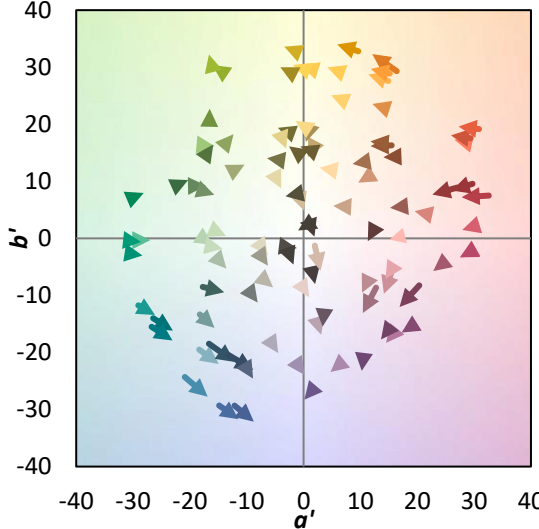
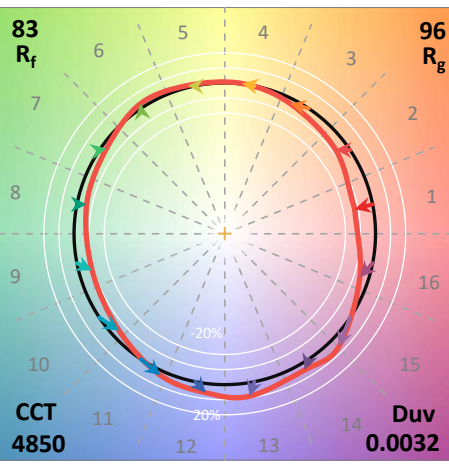
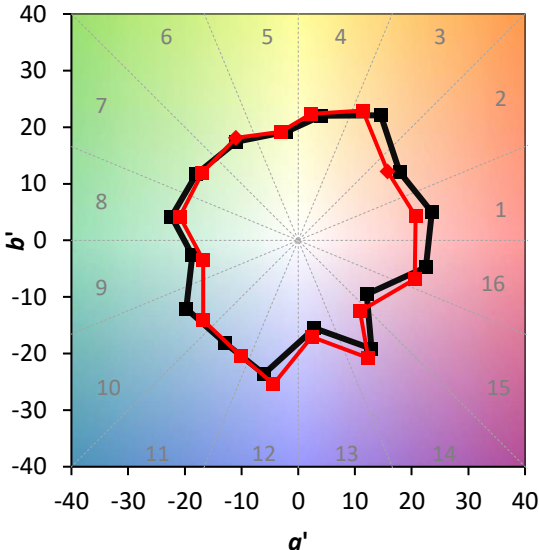
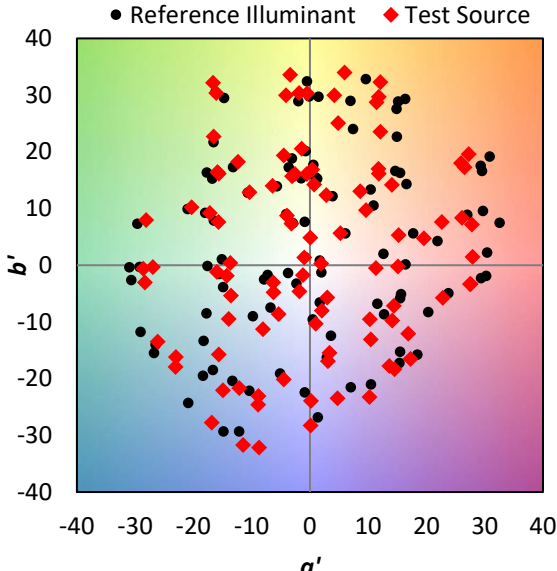
| λ (nm) | Power W [^] /nm | Lumens (φ/nm) | λ (nm) | Power W [^] /nm | Lumens (φ/nm) | λ (nm) | Power W [^] /nm | Lumens (φ/nm) | λ (nm) | Power W [^] /nm | Lumens (φ/nm) | λ (nm) | Power W [^] /nm | Lumens (φ/nm) |
|--------|--------------------------|---------------|--------|--------------------------|---------------|--------|--------------------------|---------------|--------|--------------------------|---------------|--------|--------------------------|---------------|
| 360 | 0 | NR | 490 | 212 | NR | 620 | 465 | NR | 750 | 13 | NR | 880 | 0 | NR |
| 365 | 0 | NR | 495 | 253 | NR | 625 | 436 | NR | 755 | 11 | NR | 885 | 1 | NR |
| 370 | 0 | NR | 500 | 309 | NR | 630 | 403 | NR | 760 | 9 | NR | 890 | 0 | NR |
| 375 | 1 | NR | 505 | 363 | NR | 635 | 368 | NR | 765 | 8 | NR | 895 | 0 | NR |
| 380 | 1 | NR | 510 | 409 | NR | 640 | 334 | NR | 770 | 7 | NR | 900 | 0 | NR |
| 385 | 2 | NR | 515 | 448 | NR | 645 | 300 | NR | 775 | 6 | NR | 905 | 0 | NR |
| 390 | 3 | NR | 520 | 475 | NR | 650 | 268 | NR | 780 | 5 | NR | 910 | 0 | NR |
| 395 | 4 | NR | 525 | 493 | NR | 655 | 238 | NR | 785 | 4 | NR | 915 | 0 | NR |
| 400 | 6 | NR | 530 | 503 | NR | 660 | 209 | NR | 790 | 4 | NR | 920 | 0 | NR |
| 405 | 8 | NR | 535 | 512 | NR | 665 | 183 | NR | 795 | 3 | NR | 925 | 0 | NR |
| 410 | 11 | NR | 540 | 515 | NR | 670 | 159 | NR | 800 | 3 | NR | 930 | 0 | NR |
| 415 | 16 | NR | 545 | 520 | NR | 675 | 138 | NR | 805 | 2 | NR | 935 | 0 | NR |
| 420 | 28 | NR | 550 | 524 | NR | 680 | 119 | NR | 810 | 2 | NR | 940 | 0 | NR |
| 425 | 50 | NR | 555 | 528 | NR | 685 | 102 | NR | 815 | 2 | NR | 945 | 0 | NR |
| 430 | 92 | NR | 560 | 535 | NR | 690 | 88 | NR | 820 | 2 | NR | 950 | 0 | NR |
| 435 | 171 | NR | 565 | 542 | NR | 695 | 75 | NR | 825 | 1 | NR | 955 | 0 | NR |
| 440 | 300 | NR | 570 | 548 | NR | 700 | 64 | NR | 830 | 1 | NR | 960 | 0 | NR |
| 445 | 553 | NR | 575 | 555 | NR | 705 | 55 | NR | 835 | 1 | NR | 965 | 0 | NR |
| 450 | 925 | NR | 580 | 560 | NR | 710 | 46 | NR | 840 | 1 | NR | 970 | 0 | NR |
| 455 | 909 | NR | 585 | 562 | NR | 715 | 40 | NR | 845 | 1 | NR | 975 | 0 | NR |
| 460 | 550 | NR | 590 | 563 | NR | 720 | 34 | NR | 850 | 1 | NR | 980 | 0 | NR |
| 465 | 422 | NR | 595 | 558 | NR | 725 | 29 | NR | 855 | 1 | NR | 985 | 0 | NR |
| 470 | 328 | NR | 600 | 548 | NR | 730 | 24 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 223 | NR | 605 | 534 | NR | 735 | 21 | NR | 865 | 0 | NR | 995 | 0 | NR |
| 480 | 188 | NR | 610 | 516 | NR | 740 | 18 | NR | 870 | 0 | NR | 1000 | 0 | NR |
| 485 | 193 | NR | 615 | 492 | NR | 745 | 15 | NR | 875 | 0 | NR | | | |

Summary

$R_f = 83.1$
 $R_g = 95.8$
 $CIE R_a = 82.6$
 $R_9 = 8.5$

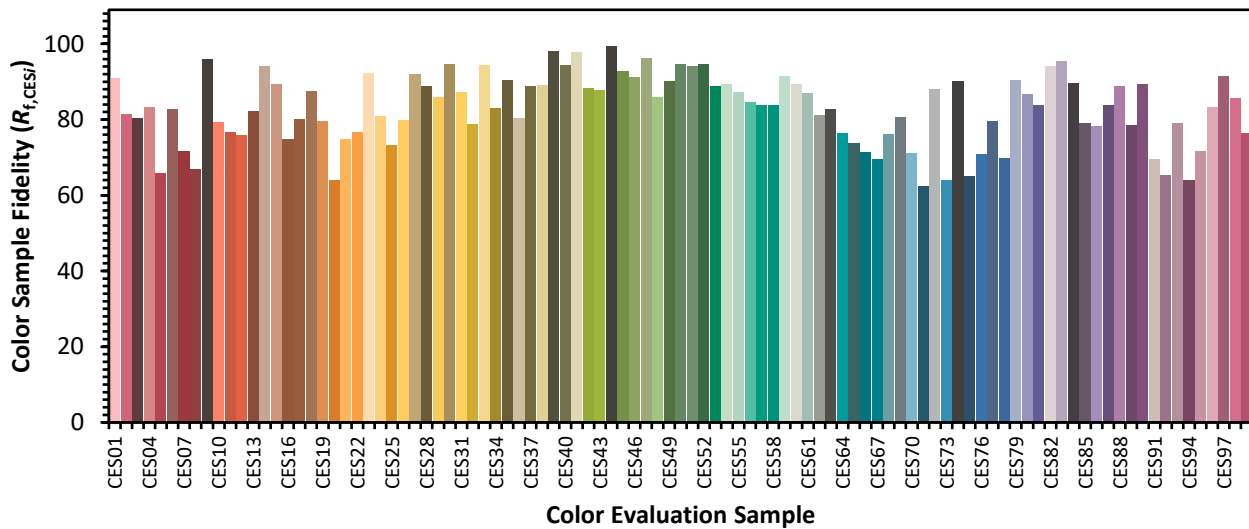


Color Vector Graphics

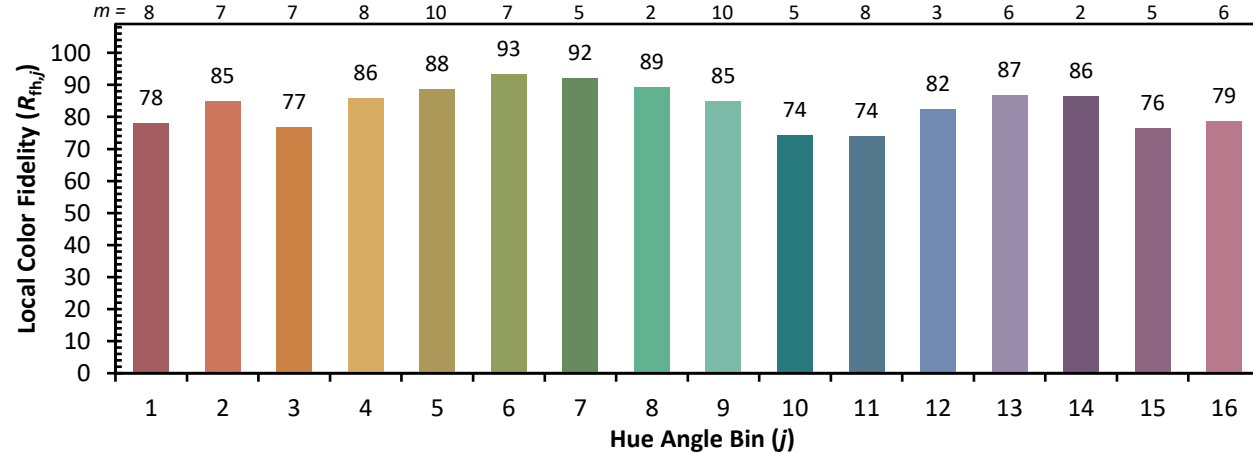
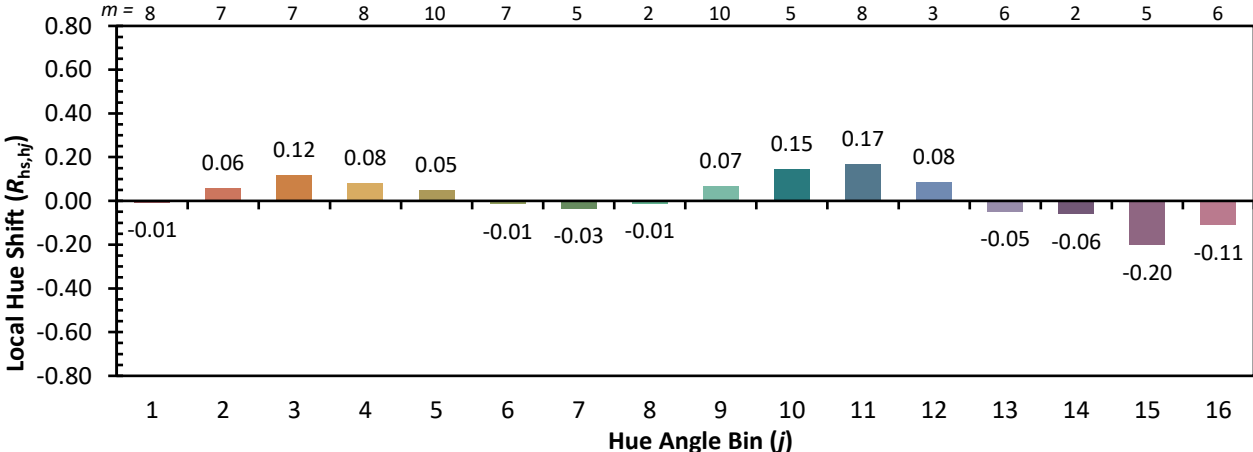
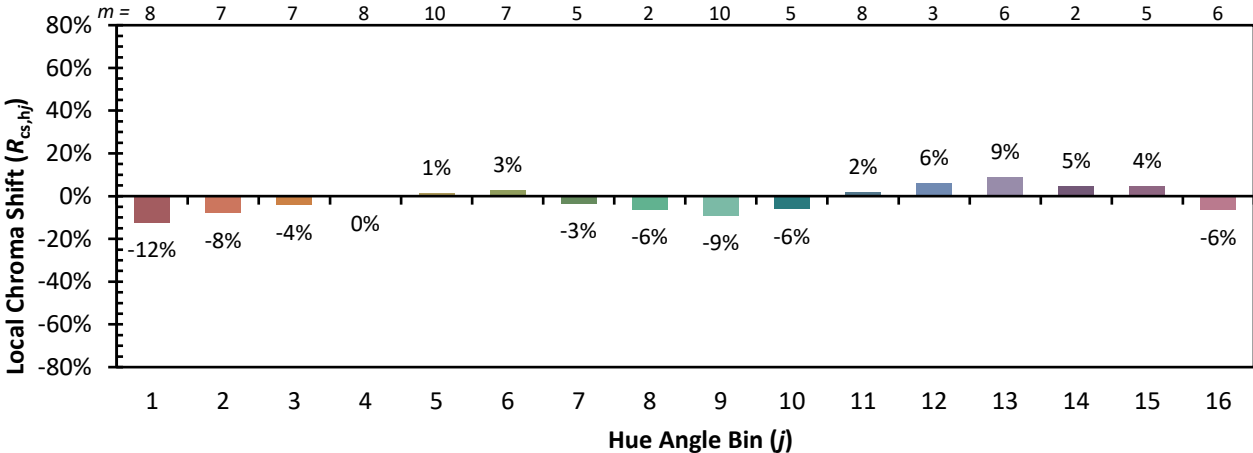


Individual Sample Fidelity Index ($R_{f,i}$)

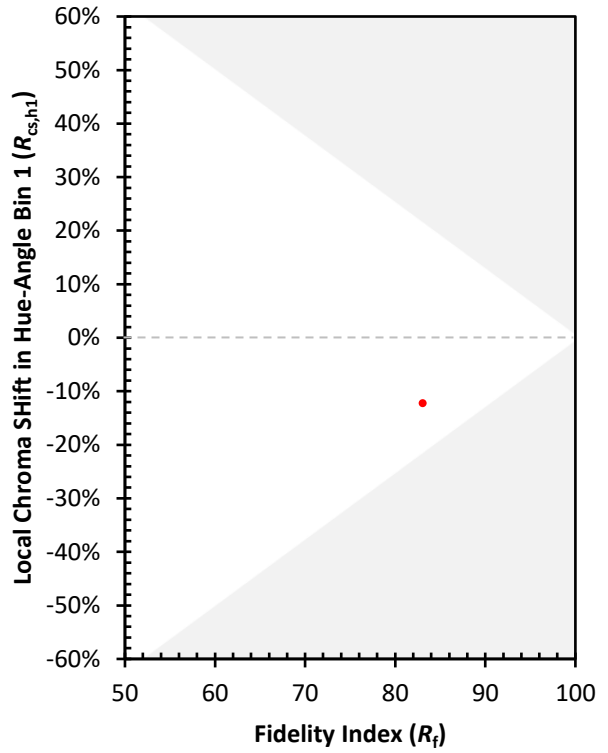
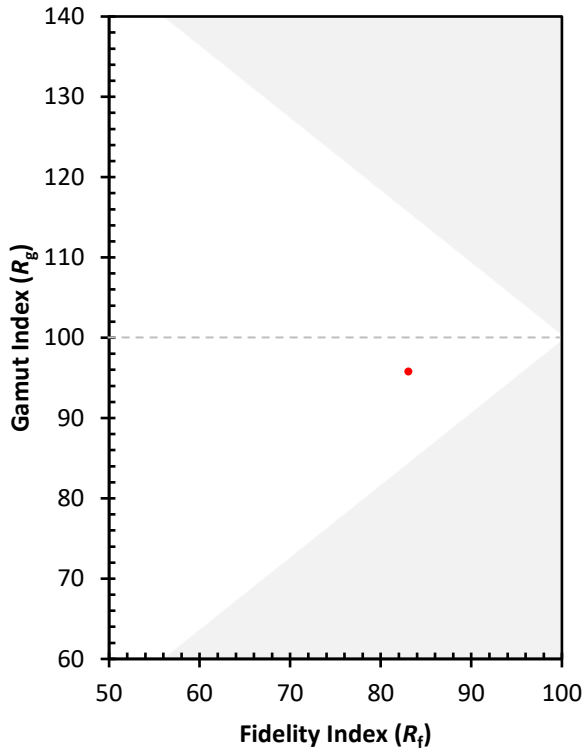
| | | | |
|------------|------------|------------|------------|
| CES01 = 85 | CES26 = 80 | CES51 = 94 | CES76 = 71 |
| CES02 = 60 | CES27 = 92 | CES52 = 95 | CES77 = 80 |
| CES03 = 30 | CES28 = 89 | CES53 = 89 | CES78 = 70 |
| CES04 = 69 | CES29 = 86 | CES54 = 89 | CES79 = 90 |
| CES05 = 47 | CES30 = 95 | CES55 = 87 | CES80 = 87 |
| CES06 = 50 | CES31 = 87 | CES56 = 85 | CES81 = 84 |
| CES07 = 40 | CES32 = 79 | CES57 = 84 | CES82 = 94 |
| CES08 = 39 | CES33 = 94 | CES58 = 84 | CES83 = 95 |
| CES09 = 29 | CES34 = 83 | CES59 = 91 | CES84 = 90 |
| CES10 = 73 | CES35 = 90 | CES60 = 89 | CES85 = 79 |
| CES11 = 56 | CES36 = 80 | CES61 = 87 | CES86 = 78 |
| CES12 = 62 | CES37 = 89 | CES62 = 81 | CES87 = 84 |
| CES13 = 42 | CES38 = 89 | CES63 = 83 | CES88 = 89 |
| CES14 = 74 | CES39 = 98 | CES64 = 77 | CES89 = 79 |
| CES15 = 71 | CES40 = 94 | CES65 = 74 | CES90 = 89 |
| CES16 = 46 | CES41 = 98 | CES66 = 71 | CES91 = 70 |
| CES17 = 49 | CES42 = 88 | CES67 = 70 | CES92 = 65 |
| CES18 = 56 | CES43 = 88 | CES68 = 76 | CES93 = 79 |
| CES19 = 71 | CES44 = 99 | CES69 = 81 | CES94 = 64 |
| CES20 = 64 | CES45 = 93 | CES70 = 71 | CES95 = 72 |
| CES21 = 85 | CES46 = 91 | CES71 = 62 | CES96 = 83 |
| CES22 = 77 | CES47 = 96 | CES72 = 88 | CES97 = 91 |
| CES23 = 91 | CES48 = 86 | CES73 = 64 | CES98 = 86 |
| CES24 = 90 | CES49 = 90 | CES74 = 90 | CES99 = 76 |
| CES25 = 71 | CES50 = 95 | CES75 = 65 | |



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)