

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: P1449893

Luminaire Tested: **TWC60\_T2\_48W\_3000K**

Issue Date: 5/19/2026

**Test Information**

Test Method: LM-79-08  
Report Number: P1449893  
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\_3000K  
Description: Tapered Wall Cutoff Wall Mount Luminaire at, T2 distribution, 48W  
3000K settings  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7207 lumens  
Efficiency: N/A  
Efficacy: 152.0 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

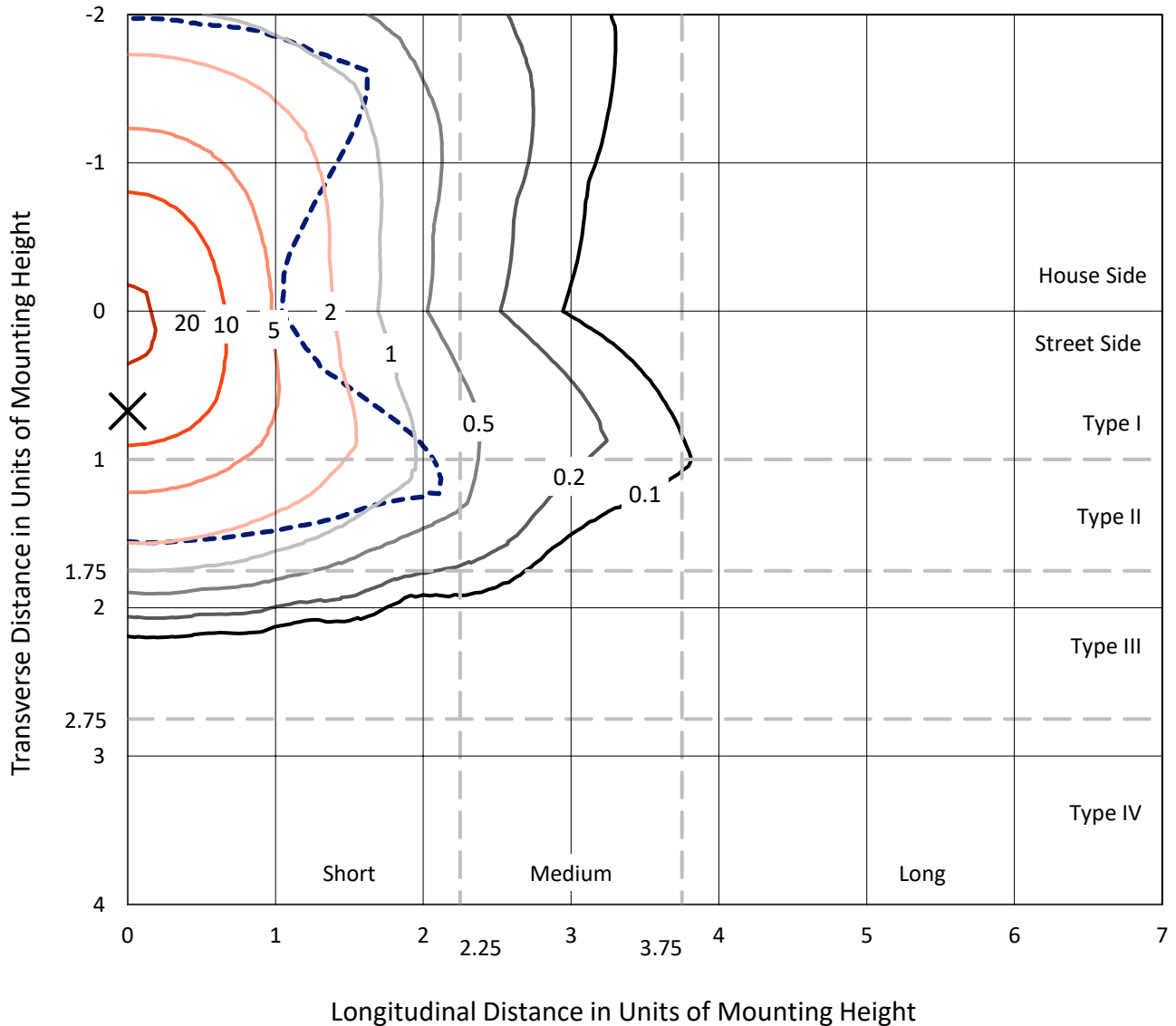
Input Watts (W): 47.4  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

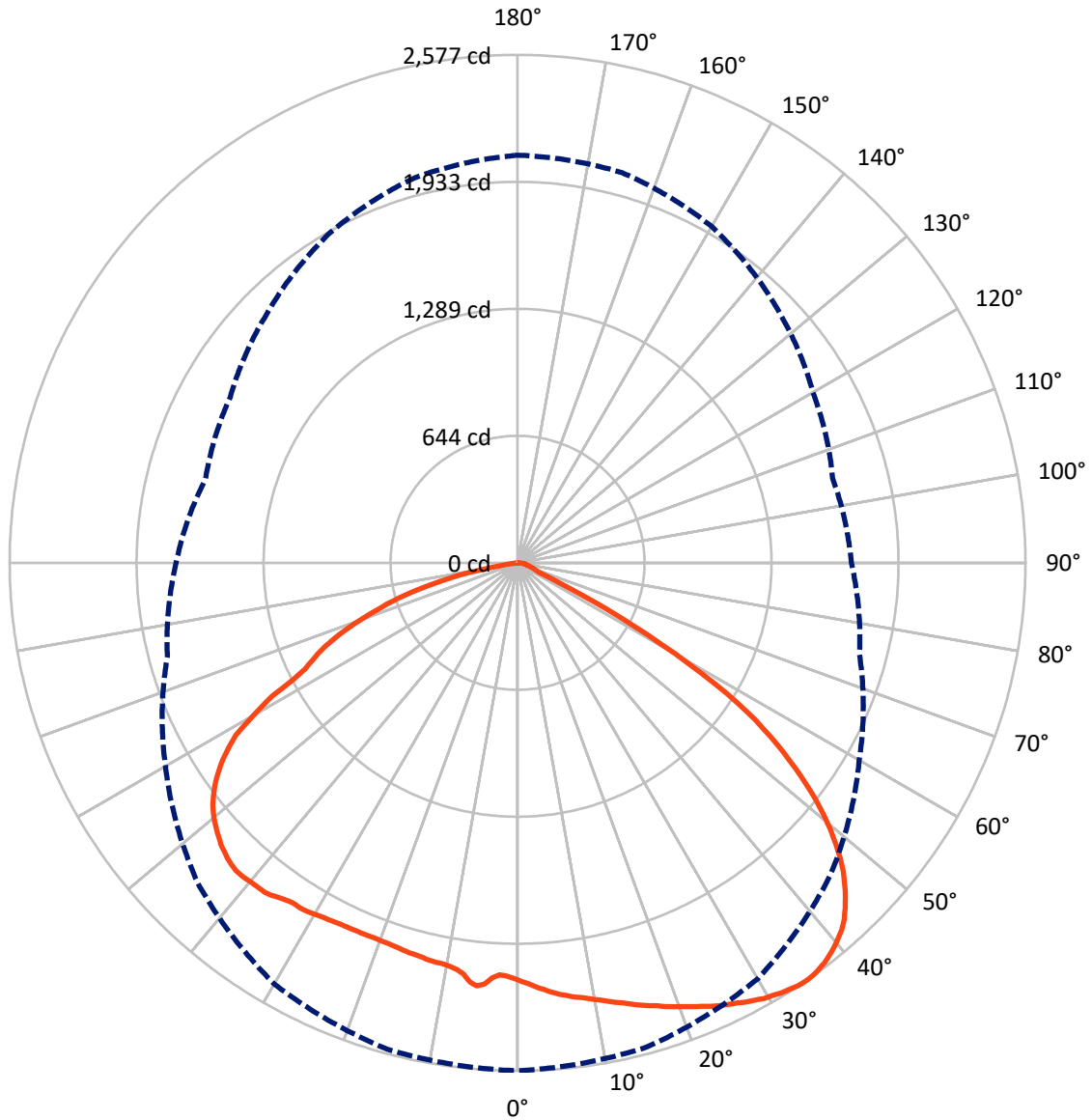
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 21.7 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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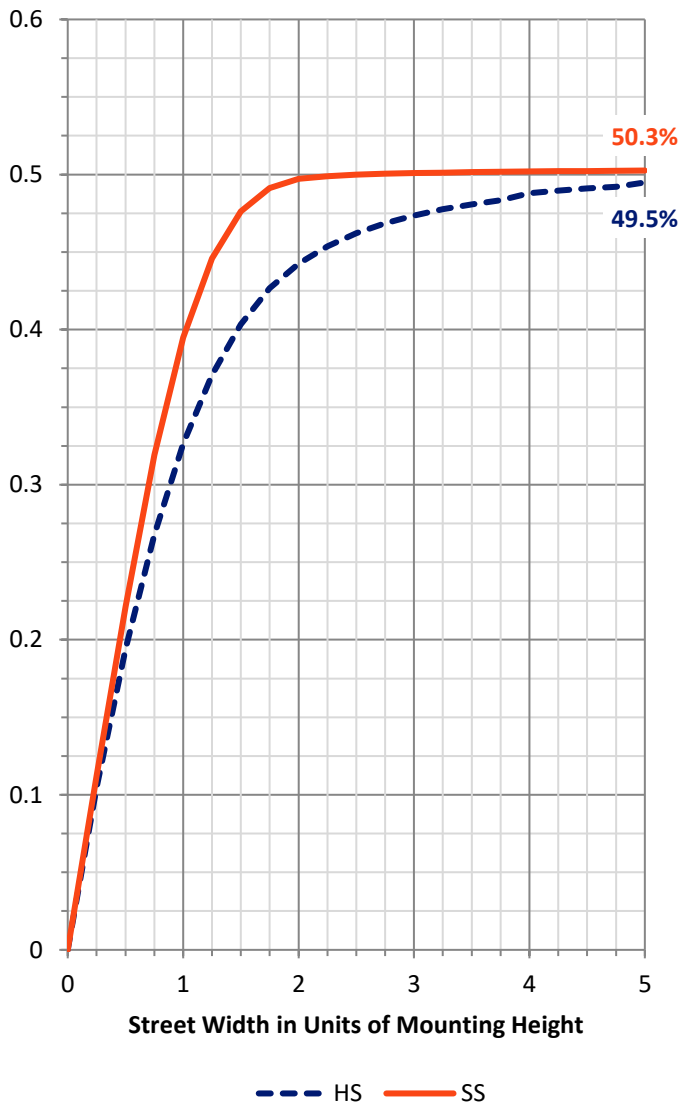
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	3585.8	0.0	3585.8
	% Fixture	49.8	0.0	49.8
<b>Street Side</b>	Lumens	3621.2	0.0	3621.2
	% Fixture	50.2	0.0	50.2
<b>Total</b>	Lumens	7207.0	0.0	7207.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	204.2	2.8
10°-20°	601.8	8.4
20°-30°	965.5	13.4
30°-40°	1263.6	17.5
40°-50°	1439.8	20.0
50°-60°	1371.0	19.0
60°-70°	890.0	12.3
70°-80°	394.5	5.5
80°-90°	76.5	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°	7207.0	100.0
0°-180°	7207.0	100.0

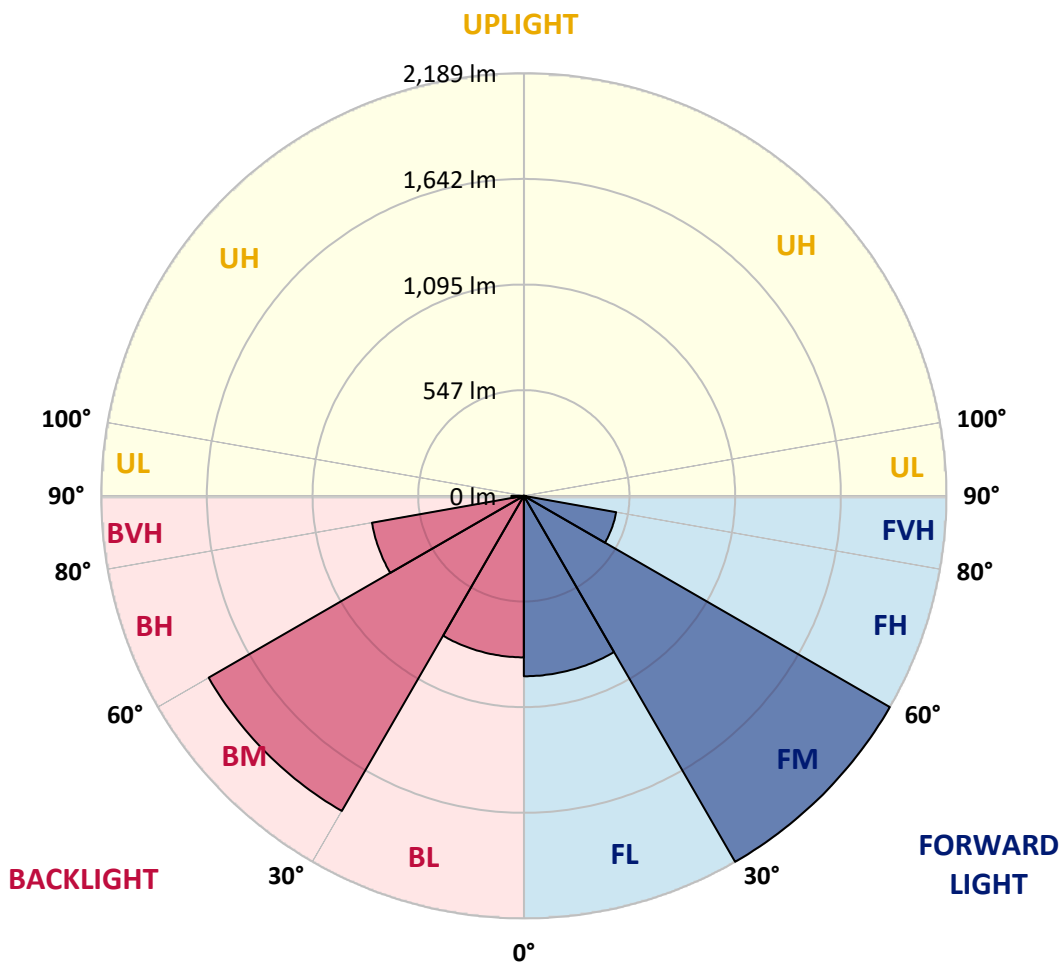


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	934.7	13.0			
FM (30°-60°)	2189.2	30.4			
FH (60°-80°)	485.5	6.7			G0/660
FVH (80°-90°)	11.7	0.2			G1/100
BL (0°-30°)	836.9	11.6	B2/1000		
BM (30°-60°)	1885.2	26.2	B2/2500		
BH (60°-80°)	799.0	11.1	B2/1000		G2/1000
BVH (80°-90°)	64.8	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°	2122.5	2122.5	2122.5	2122.5	2122.5	2122.5	2122.5	2122.5	2122.5	2122.5	2122.5
1°	2136.0	2134.8	2135.6	2130.4	2126.4	2124.7	2122.9	2118.9	2115.4	2112.7	2110.6
2°	2154.2	2150.8	2147.0	2141.0	2133.7	2126.7	2121.0	2113.7	2107.7	2104.7	2101.0
3°	2168.6	2166.9	2160.1	2150.6	2140.8	2127.2	2118.6	2107.9	2099.4	2093.7	2090.9
4°	2184.9	2180.2	2172.7	2160.7	2144.4	2127.8	2114.3	2101.8	2092.1	2091.3	2099.7
5°	2198.4	2194.0	2183.7	2169.4	2148.9	2128.6	2111.8	2095.5	2086.5	2101.5	2127.1
6°	2210.1	2204.6	2194.3	2177.0	2153.2	2126.2	2102.9	2085.3	2088.6	2126.4	2150.6
7°	2221.6	2214.3	2200.1	2181.9	2155.0	2125.6	2098.5	2079.2	2101.0	2146.0	2153.7
8°	2231.4	2224.3	2209.6	2185.9	2158.0	2124.0	2092.1	2073.9	2117.5	2148.1	2126.3
9°	2243.6	2235.6	2215.3	2192.7	2157.3	2120.1	2084.1	2068.9	2132.8	2131.5	2094.3
10°	2255.2	2244.3	2225.2	2195.7	2159.1	2114.3	2076.2	2071.6	2132.1	2096.9	2079.6
11°	2268.8	2258.3	2231.4	2198.9	2156.5	2111.2	2068.8	2077.8	2123.0	2072.2	2069.0
12°	2283.3	2271.2	2240.5	2204.3	2156.9	2106.3	2056.7	2084.1	2093.4	2059.7	2061.3
13°	2296.0	2283.0	2250.3	2206.2	2156.1	2099.5	2045.8	2088.5	2064.7	2048.5	2055.9
14°	2312.5	2297.1	2260.5	2210.4	2154.6	2092.5	2035.7	2091.2	2042.4	2039.0	2052.3
15°	2329.1	2312.7	2270.2	2214.9	2150.6	2083.9	2023.9	2082.5	2026.0	2031.1	2043.0
16°	2342.8	2326.0	2283.4	2218.5	2151.0	2078.6	2012.4	2067.4	2013.4	2022.5	2037.2
17°	2356.8	2340.3	2292.4	2225.6	2150.1	2071.3	2001.4	2043.6	1998.6	2013.4	2032.1
18°	2374.0	2351.9	2302.3	2231.0	2148.7	2063.1	1991.8	2011.0	1987.4	2002.1	2027.1
19°	2389.6	2367.2	2313.4	2236.7	2145.2	2053.1	1981.5	1981.4	1975.7	1993.8	2018.9
20°	2403.7	2378.2	2321.0	2240.2	2145.2	2045.8	1974.0	1956.4	1961.3	1983.5	2010.8
21°	2419.9	2392.8	2332.5	2243.1	2139.5	2038.4	1969.9	1937.3	1945.0	1972.4	2006.4
22°	2436.3	2405.2	2338.9	2246.6	2134.0	2029.5	1965.4	1918.5	1928.7	1962.6	2001.4
23°	2453.2	2421.8	2347.1	2247.2	2127.8	2016.8	1960.5	1899.6	1915.0	1952.6	1993.2
24°	2469.5	2435.9	2355.9	2249.3	2122.6	2005.8	1953.2	1882.7	1899.7	1943.4	1988.5
25°	2482.9	2449.1	2365.4	2248.0	2114.7	1987.9	1943.6	1865.7	1884.6	1933.4	1986.4
26°	2495.8	2462.5	2374.3	2247.0	2104.1	1971.0	1927.4	1842.6	1866.2	1921.0	1982.6
27°	2511.9	2474.8	2386.6	2248.8	2095.7	1955.2	1907.8	1823.0	1849.7	1911.0	1977.8
28°	2524.3	2486.1	2392.6	2245.1	2083.9	1935.5	1881.0	1799.9	1833.6	1902.5	1976.5
29°	2539.7	2500.3	2401.6	2245.9	2070.5	1916.8	1853.0	1777.4	1818.8	1891.7	1975.5
30°	2547.8	2513.2	2406.7	2243.8	2059.0	1893.4	1818.0	1754.3	1801.4	1882.2	1971.7
31°	2559.4	2521.6	2416.7	2246.1	2045.4	1870.7	1785.4	1731.1	1782.5	1873.8	1971.4
32°	2566.5	2531.7	2421.9	2244.8	2030.3	1847.8	1753.1	1705.6	1766.5	1864.8	1969.3
33°	2574.3	2536.9	2430.4	2243.5	2016.0	1822.0	1721.3	1680.7	1746.9	1856.4	1970.6
34°	2577.1	2542.7	2436.7	2243.2	2001.8	1795.9	1693.2	1654.8	1730.4	1848.3	1970.0
35°	2575.5	2543.9	2443.1	2242.1	1987.8	1770.6	1662.6	1629.0	1709.7	1838.5	1968.1
36°	2567.3	2542.9	2443.0	2238.2	1973.2	1741.9	1631.6	1603.2	1691.9	1832.8	1959.3
37°	2558.5	2534.7	2446.9	2239.1	1959.0	1713.4	1599.8	1576.7	1673.5	1822.0	1958.5
38°	2543.4	2523.9	2444.1	2240.7	1947.3	1686.8	1568.0	1550.4	1656.6	1810.3	1959.2
39°	2525.3	2510.7	2437.5	2240.2	1934.7	1658.2	1535.1	1525.8	1638.4	1795.7	1963.4
40°	2505.5	2492.5	2431.8	2241.3	1923.0	1628.9	1502.1	1501.2	1620.5	1785.5	1968.1
41°	2483.6	2472.0	2419.8	2241.3	1912.0	1602.2	1469.1	1476.7	1601.7	1782.2	1966.3
42°	2453.2	2446.8	2405.5	2240.0	1901.0	1574.3	1436.8	1448.3	1580.5	1776.6	1965.5
43°	2414.4	2417.7	2386.0	2238.9	1892.1	1547.9	1400.5	1419.9	1555.5	1765.1	1965.3
44°	2372.9	2381.4	2363.6	2236.8	1883.3	1523.0	1363.2	1392.0	1537.8	1752.3	1966.5



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**CANDELA DISTRIBUTION (continued):**

	0°	15°	30°	45°	60°	75°	90°	105°	120°	135°	150°
45°	2327.5	2342.7	2340.1	2230.8	1875.6	1499.0	1326.5	1361.6	1520.1	1738.9	1966.5
46°	2278.8	2297.5	2309.8	2223.3	1868.5	1476.2	1291.3	1331.9	1502.4	1734.8	1961.7
47°	2220.0	2247.9	2279.4	2211.3	1864.0	1452.0	1252.0	1302.0	1482.8	1728.7	1951.1
48°	2156.5	2192.0	2239.0	2199.5	1857.1	1424.7	1214.7	1269.5	1459.7	1720.0	1938.6
49°	2088.5	2128.6	2195.1	2179.1	1852.3	1395.9	1175.3	1234.2	1436.8	1708.9	1924.5
50°	2014.4	2056.5	2146.9	2158.0	1849.0	1364.8	1136.9	1195.7	1419.0	1696.8	1908.2
51°	1933.2	1984.8	2092.1	2135.2	1845.0	1332.8	1097.5	1158.5	1399.7	1681.3	1890.5
52°	1847.5	1902.3	2031.8	2109.8	1843.2	1299.3	1056.8	1126.7	1376.0	1667.6	1873.6
53°	1754.8	1816.4	1962.5	2076.7	1838.6	1260.2	1017.8	1096.6	1350.5	1654.9	1854.3
54°	1659.0	1723.8	1884.0	2038.2	1833.0	1226.5	979.3	1059.6	1323.9	1639.7	1833.5
55°	1557.2	1625.5	1800.7	1992.5	1828.8	1191.9	937.4	1021.8	1294.7	1622.6	1810.8
56°	1448.1	1521.5	1711.2	1943.3	1821.4	1158.2	896.3	987.0	1270.4	1602.7	1786.1
57°	1324.7	1408.8	1612.6	1886.7	1810.3	1125.7	855.6	952.5	1242.4	1582.4	1758.8
58°	1176.4	1285.9	1508.5	1818.0	1792.8	1093.3	813.3	916.4	1215.8	1561.6	1727.5
59°	1009.7	1140.1	1396.4	1741.2	1773.2	1061.3	771.3	877.4	1186.9	1540.7	1690.5
60°	837.0	972.3	1274.7	1652.1	1747.0	1029.4	727.7	837.5	1157.3	1519.7	1649.3
61°	674.3	799.2	1140.6	1552.3	1718.8	999.7	686.0	797.6	1127.1	1498.7	1599.7
62°	511.8	637.0	979.5	1434.7	1683.6	974.0	647.1	760.1	1098.7	1469.9	1525.1
63°	349.3	474.9	811.7	1308.4	1642.3	951.0	605.2	720.2	1072.1	1438.6	1450.6
64°	226.4	312.8	644.3	1176.9	1592.8	932.2	564.0	683.1	1043.9	1403.0	1374.5
65°	148.8	195.4	476.8	1023.0	1535.3	919.3	524.6	646.4	1015.0	1366.7	1245.4
66°	114.6	128.7	309.4	851.8	1466.4	913.3	485.7	609.8	984.0	1317.9	1151.6
67°	103.9	101.0	189.1	676.0	1381.7	910.0	448.5	573.2	953.4	1239.5	1096.6
68°	96.6	91.8	119.7	500.1	1276.9	908.3	410.9	537.9	917.5	1142.3	1050.6
69°	89.4	84.5	93.7	324.3	1159.3	905.5	374.8	503.4	882.0	1066.9	1005.3
70°	82.4	77.6	84.3	188.9	1009.6	904.8	339.7	470.4	848.0	1019.5	961.8
71°	75.8	71.8	77.4	111.5	812.1	909.5	305.7	437.0	809.7	973.5	921.8
72°	70.5	65.9	70.5	80.9	601.2	910.4	274.9	404.2	748.4	923.1	879.7
73°	65.3	60.1	63.6	71.8	390.1	889.0	244.4	370.5	690.8	870.8	835.0
74°	60.0	54.9	56.8	63.0	179.0	827.0	215.2	337.8	652.7	821.4	785.0
75°	54.6	49.3	50.3	54.3	99.3	747.7	187.7	307.1	620.8	774.8	732.5
76°	50.1	44.3	42.9	48.4	83.7	662.5	160.3	276.6	585.6	729.4	669.4
77°	46.7	40.4	37.3	43.8	69.0	577.2	132.9	247.8	550.8	687.1	596.6
78°	44.5	37.1	32.6	38.5	54.3	491.9	110.0	213.0	518.6	646.3	530.8
79°	42.7	35.1	29.3	32.0	49.3	375.3	89.4	185.7	484.4	607.2	469.9
80°	40.3	33.3	26.7	26.0	49.2	283.6	70.9	158.5	450.9	556.5	422.7
81°	37.6	31.1	24.6	22.1	45.7	198.3	55.4	131.3	418.9	503.4	374.1
82°	34.4	28.7	22.8	19.3	39.1	129.0	42.1	110.2	384.2	449.3	266.7
83°	28.4	24.9	20.8	16.8	32.4	76.0	30.5	90.3	349.8	408.0	159.2
84°	22.5	20.4	17.6	14.6	22.3	56.8	23.3	70.9	302.3	370.6	53.7
85°	16.1	15.1	13.2	12.5	13.1	37.7	16.2	53.6	243.4	296.1	30.9
86°	11.3	11.4	9.6	9.3	8.4	18.6	9.0	37.4	194.8	221.6	8.5
87°	7.7	7.8	6.6	6.4	5.7	10.2	5.2	25.3	146.2	147.1	4.2
88°	4.1	4.2	3.6	3.5	3.0	6.8	2.4	13.2	97.5	72.6	1.4
89°	0.6	0.6	0.5	0.6	0.6	3.5	0.8	1.5	48.9	0.5	0.3



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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



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**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



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**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: P1449893

CATALOG NUMBER: TWC60\_T2\_48W\_3000K

**CANDELA DISTRIBUTION (continued):**

	165°	180°	195°	210°	225°	240°	255°	270°	285°	300°	315°
0°	2122.5	2122.5	2122.5	2122.5	2122.5	2122.5	2122.5	2122.5	2122.5	2122.5	2122.5
1°	2108.6	2108.5	2110.2	2108.7	2111.9	2114.3	2117.1	2123.2	2126.6	2128.7	2131.6
2°	2096.1	2097.2	2096.5	2097.9	2105.2	2108.8	2114.0	2121.4	2130.2	2135.1	2142.0
3°	2090.0	2092.5	2089.0	2089.5	2092.5	2101.8	2107.5	2118.4	2129.6	2141.0	2154.0
4°	2109.8	2109.3	2102.6	2091.7	2084.9	2092.5	2102.0	2117.1	2134.2	2147.4	2163.3
5°	2141.5	2143.1	2133.2	2115.4	2088.6	2083.7	2096.1	2112.6	2133.2	2154.4	2172.6
6°	2156.5	2156.9	2156.4	2138.1	2105.9	2078.5	2088.6	2107.5	2132.8	2159.3	2179.7
7°	2144.4	2140.3	2146.5	2148.8	2127.0	2080.5	2080.9	2103.7	2133.2	2162.8	2187.3
8°	2106.8	2102.8	2109.9	2134.8	2139.5	2088.7	2072.3	2098.7	2133.6	2165.4	2192.4
9°	2086.2	2086.2	2086.5	2098.3	2136.0	2103.7	2061.8	2090.3	2128.9	2166.3	2197.9
10°	2077.1	2076.4	2075.9	2075.5	2110.2	2113.9	2055.3	2084.0	2127.2	2168.5	2203.9
11°	2069.3	2070.1	2068.0	2064.7	2079.7	2115.6	2049.3	2076.4	2121.2	2167.4	2206.4
12°	2067.8	2068.3	2062.6	2053.5	2057.9	2106.3	2045.8	2065.1	2118.4	2167.4	2212.2
13°	2063.1	2065.2	2060.0	2047.1	2045.3	2083.3	2048.1	2054.8	2113.2	2167.1	2217.7
14°	2058.1	2059.9	2051.5	2042.0	2032.1	2053.5	2053.3	2046.4	2108.8	2167.4	2222.9
15°	2053.1	2054.7	2046.6	2035.1	2020.2	2027.7	2052.8	2037.5	2102.2	2169.4	2230.6
16°	2049.4	2053.0	2043.8	2025.2	2011.6	2008.0	2054.5	2023.0	2096.1	2171.1	2236.6
17°	2046.0	2049.0	2039.3	2019.1	1999.4	1993.9	2046.2	2012.1	2089.0	2170.3	2244.2
18°	2040.3	2043.4	2031.9	2010.7	1987.1	1977.4	2031.9	1998.6	2085.5	2170.3	2252.1
19°	2034.6	2041.3	2028.3	2004.8	1973.8	1962.5	2011.8	1988.0	2078.9	2169.0	2259.1
20°	2033.4	2039.7	2022.8	1995.1	1965.4	1948.0	1984.8	1972.4	2071.8	2168.2	2260.8
21°	2031.7	2037.5	2019.8	1986.7	1954.5	1933.7	1954.5	1960.0	2066.5	2168.5	2266.3
22°	2029.5	2037.0	2017.7	1979.8	1941.3	1916.2	1924.3	1946.5	2056.7	2164.0	2269.9
23°	2029.7	2039.1	2015.6	1974.6	1928.4	1895.0	1898.8	1935.1	2047.0	2161.0	2274.5
24°	2027.9	2039.1	2014.8	1964.9	1915.7	1877.4	1876.2	1923.4	2033.6	2154.9	2278.2
25°	2026.9	2039.9	2014.0	1961.0	1905.1	1862.1	1853.9	1916.6	2019.3	2148.3	2279.8
26°	2029.5	2041.3	2011.0	1954.8	1893.1	1842.5	1832.6	1910.2	2005.8	2141.0	2282.5
27°	2028.7	2042.7	2011.8	1950.9	1881.1	1822.2	1810.0	1900.9	1987.9	2135.8	2284.4
28°	2030.4	2046.7	2011.8	1944.6	1867.7	1801.5	1790.3	1891.7	1969.4	2124.3	2285.7
29°	2034.9	2050.7	2012.7	1937.5	1856.6	1784.6	1768.5	1878.8	1950.1	2116.1	2288.6
30°	2035.8	2055.1	2015.9	1933.1	1844.2	1763.7	1743.3	1857.9	1928.7	2104.6	2292.9
31°	2044.2	2062.0	2017.1	1931.4	1832.4	1745.3	1716.8	1834.5	1906.2	2095.0	2294.9
32°	2047.4	2067.8	2022.8	1926.1	1819.2	1724.0	1692.6	1805.3	1885.7	2086.3	2293.3
33°	2049.3	2069.3	2023.6	1924.7	1803.9	1703.7	1664.2	1770.0	1862.5	2073.9	2297.8
34°	2049.0	2068.0	2022.2	1922.6	1794.2	1683.1	1639.5	1732.3	1839.4	2063.3	2295.7
35°	2049.4	2075.6	2020.1	1919.1	1779.8	1663.5	1612.5	1693.9	1815.3	2052.5	2298.9
36°	2057.6	2085.6	2021.8	1912.3	1768.1	1642.5	1584.2	1654.9	1791.4	2046.2	2300.5
37°	2068.1	2098.4	2030.1	1903.0	1756.4	1621.6	1554.9	1621.6	1767.5	2034.3	2303.8
38°	2075.6	2106.4	2038.8	1900.9	1744.0	1599.4	1527.7	1586.2	1744.7	2028.5	2303.9
39°	2079.0	2107.7	2044.5	1899.6	1728.5	1576.2	1500.4	1552.7	1721.0	2019.9	2304.7
40°	2080.7	2109.7	2043.4	1896.4	1711.1	1555.0	1473.2	1517.6	1695.4	2012.0	2302.9
41°	2083.7	2113.0	2042.6	1893.3	1697.6	1534.4	1439.6	1485.0	1670.3	2002.9	2305.3
42°	2086.5	2117.1	2049.4	1888.4	1685.6	1513.8	1407.0	1450.9	1645.4	1998.2	2300.2
43°	2089.7	2116.6	2050.7	1888.1	1676.5	1493.2	1372.7	1414.9	1621.6	1995.3	2296.2
44°	2085.2	2109.5	2050.3	1888.0	1666.5	1466.2	1339.7	1378.8	1594.9	1993.9	2287.0



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**CANDELA DISTRIBUTION (continued):**

	165°	180°	195°	210°	225°	240°	255°	270°	285°	300°	315°
45°	2076.7	2100.4	2043.4	1886.0	1648.6	1437.2	1306.5	1342.4	1568.3	1992.0	2275.7
46°	2064.0	2087.2	2031.7	1882.8	1633.1	1408.6	1273.5	1305.8	1544.1	1988.6	2260.4
47°	2051.1	2075.1	2017.7	1876.2	1619.2	1381.1	1240.8	1267.1	1518.3	1984.9	2241.6
48°	2036.6	2057.0	2004.0	1867.4	1606.8	1359.5	1207.3	1230.3	1494.8	1983.0	2218.3
49°	2019.5	2040.0	1987.1	1855.4	1591.7	1333.3	1173.3	1190.1	1470.3	1980.0	2196.0
50°	2001.1	2020.9	1971.7	1841.9	1575.3	1306.1	1138.2	1150.2	1444.9	1975.8	2168.6
51°	1980.7	1998.9	1953.5	1822.8	1556.6	1279.7	1102.6	1111.9	1421.9	1971.0	2137.1
52°	1960.6	1975.9	1932.5	1806.8	1539.5	1253.9	1063.7	1072.2	1398.1	1965.4	2096.1
53°	1933.4	1944.2	1909.6	1787.2	1526.0	1230.7	1024.1	1032.8	1376.4	1955.9	2052.8
54°	1904.3	1911.8	1885.7	1768.1	1512.6	1203.1	984.5	991.6	1357.6	1941.8	2001.0
55°	1871.1	1875.3	1854.1	1746.6	1499.2	1174.0	949.2	949.9	1339.8	1925.1	1943.8
56°	1833.1	1832.4	1819.9	1725.4	1481.3	1140.2	911.7	907.6	1325.9	1899.9	1880.1
57°	1789.7	1787.0	1779.8	1699.3	1461.6	1107.8	871.9	865.2	1316.6	1875.5	1803.8
58°	1741.1	1732.7	1734.9	1675.0	1443.1	1073.9	832.1	822.7	1305.2	1845.5	1722.1
59°	1689.0	1676.6	1686.5	1645.0	1425.5	1042.3	793.6	781.1	1295.9	1810.3	1626.6
60°	1631.7	1589.9	1633.2	1613.9	1402.0	1010.0	755.5	740.6	1284.3	1770.7	1522.5
61°	1528.2	1503.2	1542.3	1575.5	1377.6	979.0	717.6	700.2	1273.0	1722.2	1408.7
62°	1424.7	1416.3	1451.5	1525.2	1351.9	945.9	678.3	659.9	1268.3	1668.4	1283.8
63°	1321.2	1281.4	1360.3	1474.9	1320.1	911.0	637.3	618.3	1263.2	1600.5	1147.9
64°	1215.8	1202.1	1235.9	1423.5	1289.2	879.0	596.5	576.5	1260.8	1524.5	997.7
65°	1159.4	1155.9	1161.9	1324.1	1253.6	845.8	555.9	537.6	1255.3	1433.6	828.0
66°	1116.8	1112.8	1112.8	1203.9	1217.4	811.2	516.6	499.3	1252.1	1326.6	656.7
67°	1074.2	1064.8	1073.1	1119.6	1175.5	776.7	478.3	461.0	1249.8	1205.2	485.4
68°	1024.7	1009.0	1031.1	1064.2	1123.4	741.3	440.5	420.1	1235.8	1055.6	314.0
69°	970.9	946.8	982.4	1010.8	1044.7	704.4	403.6	380.5	1205.2	881.7	188.8
70°	914.7	884.9	933.9	960.6	973.2	669.3	368.0	342.3	1151.8	680.6	115.2
71°	851.0	814.9	877.5	914.2	930.1	633.7	335.2	304.5	1074.3	478.8	85.8
72°	786.2	751.4	818.6	875.0	893.7	599.3	304.7	269.5	1001.7	277.0	76.4
73°	724.4	692.1	755.4	838.3	850.6	561.9	273.2	236.0	942.7	151.4	69.0
74°	659.3	626.1	690.2	800.7	808.5	507.9	244.5	206.3	848.3	89.9	61.7
75°	595.1	558.8	624.4	761.6	765.9	463.6	216.9	177.2	739.6	76.7	54.4
76°	526.2	483.0	561.0	718.2	723.5	431.0	193.0	150.8	588.1	64.3	46.6
77°	456.2	410.6	495.2	663.5	679.6	399.6	169.0	128.9	435.2	52.0	40.0
78°	392.3	341.0	436.0	597.0	632.5	366.8	145.1	110.5	282.3	47.5	33.8
79°	323.3	256.6	374.4	525.6	587.0	336.1	125.0	95.0	157.8	45.3	28.2
80°	233.5	172.3	307.9	460.5	538.8	307.2	102.6	79.1	85.3	41.4	24.0
81°	143.7	88.5	202.7	414.6	486.2	277.6	83.3	64.5	69.3	33.8	21.2
82°	55.8	29.0	97.9	378.3	437.1	248.4	67.8	49.9	54.0	26.8	18.9
83°	40.8	22.9	69.0	265.7	382.3	218.1	53.1	35.2	38.8	19.4	16.9
84°	25.8	16.7	40.2	153.0	340.3	185.0	40.6	25.3	37.5	13.6	14.9
85°	11.0	10.6	11.6	40.5	300.6	151.8	29.6	17.6	32.6	10.5	12.3
86°	6.7	6.3	7.3	22.5	188.1	118.8	21.4	11.4	24.1	8.3	8.5
87°	3.2	3.1	3.4	4.4	76.9	88.6	13.2	7.7	14.3	5.5	5.3
88°	1.2	1.2	1.3	1.3	38.1	58.9	5.1	4.1	9.5	2.8	2.0
89°	0.3	0.3	0.3	0.3	0.5	29.3	0.7	0.5	4.9	0.5	0.6



REPORT NUMBER: P1449893  
 CATALOG NUMBER: TWC60\_T2\_48W\_3000K

**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: P1449893  
 CATALOG NUMBER: TWC60\_T2\_48W\_3000K

**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: P1449893  
CATALOG NUMBER: TWC60\_T2\_48W\_3000K

**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: P1449893  
 CATALOG NUMBER: TWC60\_T2\_48W\_3000K

**CANDELA DISTRIBUTION (continued):**

	330°	345°	360°
0°	2122.5	2122.5	2122.5
1°	2134.9	2136.4	2136.0
2°	2148.3	2150.4	2154.2
3°	2159.8	2165.9	2168.6
4°	2174.3	2180.4	2184.9
5°	2185.5	2193.6	2198.4
6°	2195.2	2205.8	2210.1
7°	2204.7	2219.0	2221.6
8°	2214.2	2229.4	2231.4
9°	2222.4	2238.0	2243.6
10°	2229.9	2247.6	2255.2
11°	2239.0	2260.9	2268.8
12°	2248.7	2276.1	2283.3
13°	2261.0	2289.2	2296.0
14°	2271.8	2305.8	2312.5
15°	2284.4	2318.2	2329.1
16°	2296.1	2333.2	2342.8
17°	2305.9	2344.4	2356.8
18°	2316.7	2360.6	2374.0
19°	2327.7	2374.9	2389.6
20°	2339.2	2388.5	2403.7
21°	2351.1	2401.6	2419.9
22°	2360.3	2419.2	2436.3
23°	2369.0	2434.0	2453.2
24°	2382.3	2448.7	2469.5
25°	2391.4	2465.7	2482.9
26°	2403.3	2477.7	2495.8
27°	2414.1	2488.2	2511.9
28°	2423.4	2503.1	2524.3
29°	2429.4	2517.3	2539.7
30°	2442.1	2528.4	2547.8
31°	2450.4	2537.8	2559.4
32°	2458.1	2546.1	2566.5
33°	2465.6	2551.7	2574.3
34°	2467.6	2554.6	2577.1
35°	2474.5	2555.1	2575.5
36°	2477.2	2551.7	2567.3
37°	2473.6	2544.2	2558.5
38°	2471.6	2533.6	2543.4
39°	2464.0	2515.6	2525.3
40°	2452.4	2495.8	2505.5
41°	2435.5	2475.7	2483.6
42°	2417.9	2447.0	2453.2
43°	2395.6	2417.6	2414.4
44°	2370.6	2379.7	2372.9



REPORT NUMBER: P1449893  
 CATALOG NUMBER: TWC60\_T2\_48W\_3000K

**CANDELA DISTRIBUTION (continued):**

	330°	345°	360°
45°	2342.0	2334.7	2327.5
46°	2308.2	2286.9	2278.8
47°	2266.0	2235.4	2220.0
48°	2222.4	2175.0	2156.5
49°	2170.2	2106.3	2088.5
50°	2113.2	2035.7	2014.4
51°	2050.1	1960.9	1933.2
52°	1980.3	1876.9	1847.5
53°	1908.0	1786.2	1754.8
54°	1823.6	1692.9	1659.0
55°	1733.6	1593.4	1557.2
56°	1636.9	1484.3	1448.1
57°	1534.0	1369.8	1324.7
58°	1422.3	1236.0	1176.4
59°	1305.5	1078.6	1009.7
60°	1170.7	908.3	837.0
61°	1018.4	729.3	674.3
62°	845.4	566.0	511.8
63°	678.5	402.9	349.3
64°	511.7	267.3	226.4
65°	344.8	168.3	148.8
66°	217.5	118.8	114.6
67°	134.7	101.0	103.9
68°	99.0	93.1	96.6
69°	87.4	86.1	89.4
70°	80.0	79.3	82.4
71°	73.6	73.4	75.8
72°	67.0	67.5	70.5
73°	60.4	61.6	65.3
74°	55.3	56.5	60.0
75°	49.2	51.1	54.6
76°	42.5	46.2	50.1
77°	37.0	42.4	46.7
78°	33.1	39.6	44.5
79°	30.1	37.6	42.7
80°	27.8	35.7	40.3
81°	25.9	33.3	37.6
82°	23.8	30.6	34.4
83°	21.4	26.2	28.4
84°	17.2	21.2	22.5
85°	13.5	15.7	16.1
86°	8.8	11.3	11.3
87°	6.1	7.7	7.7
88°	3.3	4.1	4.1
89°	0.6	0.5	0.6



REPORT NUMBER: P1449893  
CATALOG NUMBER: TWC60\_T2\_48W\_3000K

**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: P1449893  
CATALOG NUMBER: TWC60\_T2\_48W\_3000K

**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: P1449893  
CATALOG NUMBER: TWC60\_T2\_48W\_3000K

**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: SP1-2601-659-1

Test Date: 02/12/2026

Luminaire Tested: MWP2460W34VDDKYYAD-T4-24W-3000K

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

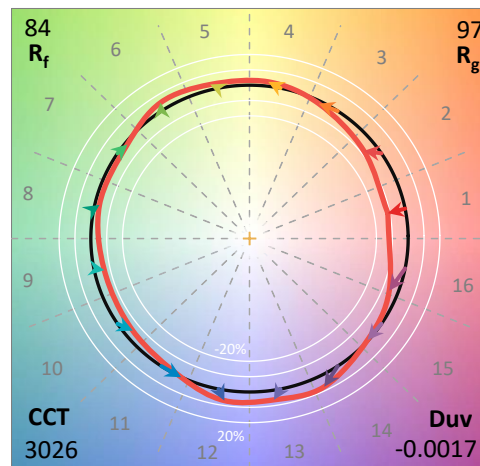
**Test Information**

Test Method: LM-79-2019  
 Report Number: SP1-2601-659-1  
 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-3000K**  
 Description: Mester Wedge, at T4 beam setting, 24W output, 3000K

**Spectral Parameters**

CCT (K): 3026  
 CIE u': 0.2503  
 CIE v': 0.5184  
 Duv: -0.0017  
 CIE x: 0.4326  
 CIE y: 0.3983  
 CIE z: 0.1691  
 Peak Wavelength (nm): 604  
 Dominant Wavelength (nm): 583  
 Purity: 49.3886  
 Rf: 84  
 Rg: 97.4

CRI (Ra):	82.7		
R1:	81.4	R9:	7.5
R2:	90.7	R10:	78.8
R3:	96.3	R11:	80.8
R4:	81.1	R12:	70.7
R5:	81.6	R13:	83.7
R6:	88.6	R14:	98.6
R7:	82.6	R15:	74.2
R8:	59.3		



**Test Conditions**

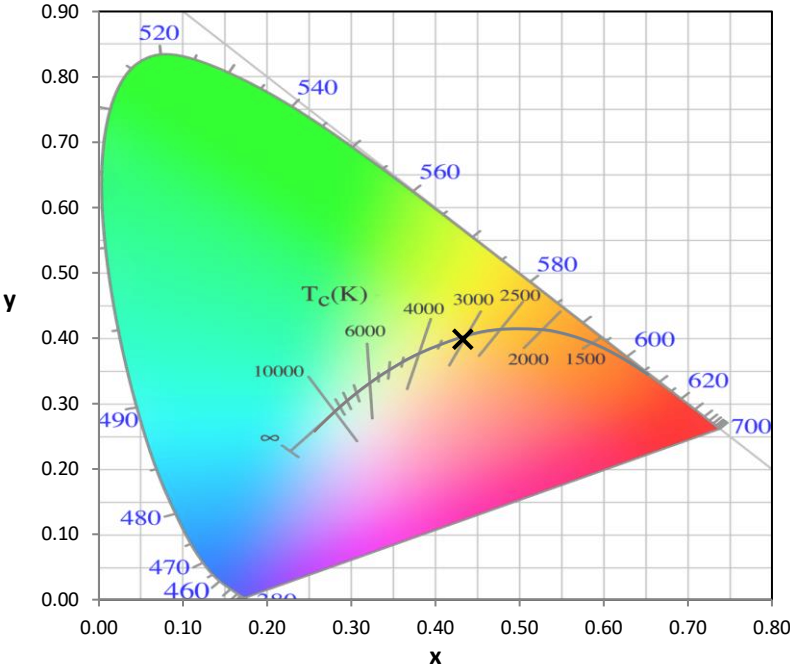
Stabilization Time: 64M  
 Operation Time: 2H 4M  
 Sphere Temperature (°C): 24.8

REPORT NUMBER: SP1-2601-659-1

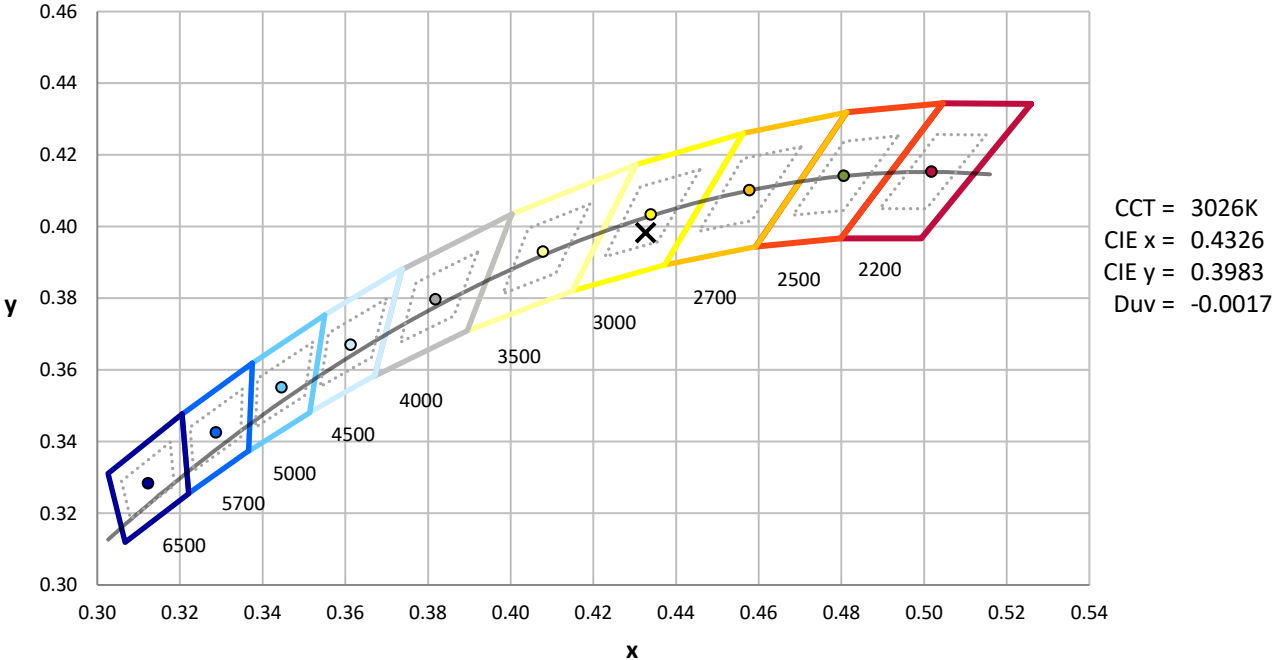
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	76INCH SPHERE IN0058	12/16/2025	6/16/2026
Power Meter	XITRON INXT2011004	10/21/2025	10/21/2026
AC Power Source	CHROMA 61603 IN0063	10/21/2025	10/21/2026
DC Power Source	AGILENT E3634A IN0208	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: SP1-2601-659-1

CIE 1931 Chromaticity Diagram



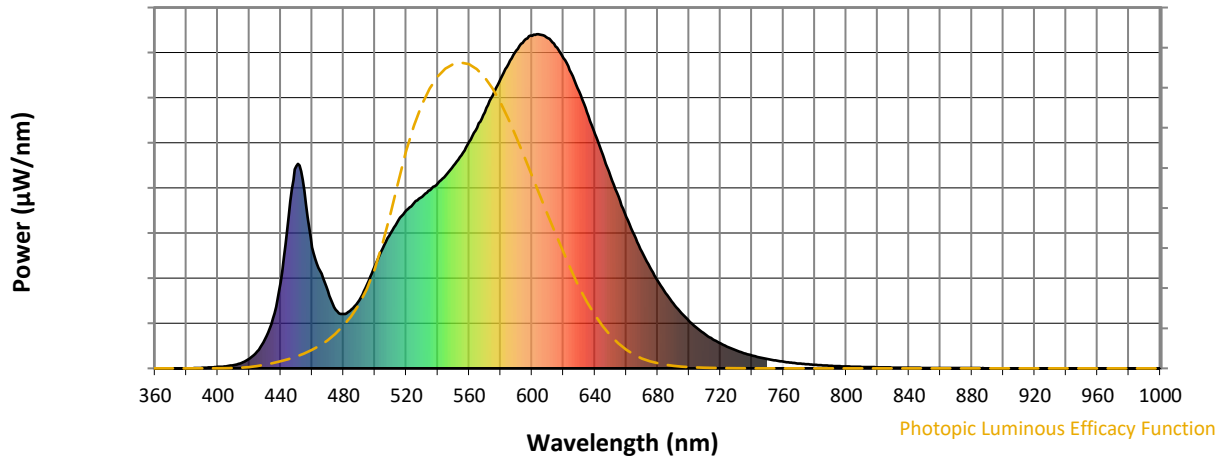
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 3000K 4-step quadrangle

REPORT NUMBER: SP1-2601-659-1

**Photopic Flux vs. Wavelength**

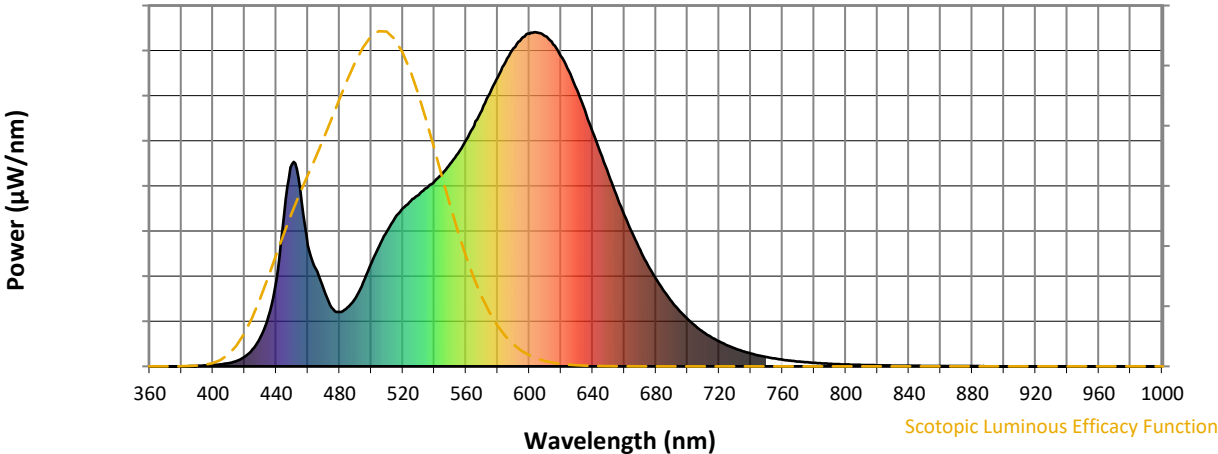


**Photopic Lumens: NR**

$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)
360	0	NR	490	204	NR	620	928	NR	750	28	NR	880	1	NR
365	0	NR	495	251	NR	625	884	NR	755	24	NR	885	1	NR
370	0	NR	500	307	NR	630	828	NR	760	20	NR	890	0	NR
375	0	NR	505	360	NR	635	767	NR	765	17	NR	895	0	NR
380	0	NR	510	405	NR	640	702	NR	770	14	NR	900	0	NR
385	1	NR	515	444	NR	645	639	NR	775	12	NR	905	0	NR
390	2	NR	520	473	NR	650	574	NR	780	11	NR	910	0	NR
395	3	NR	525	495	NR	655	514	NR	785	9	NR	915	0	NR
400	5	NR	530	513	NR	660	453	NR	790	8	NR	920	0	NR
405	6	NR	535	534	NR	665	399	NR	795	7	NR	925	0	NR
410	10	NR	540	554	NR	670	348	NR	800	6	NR	930	0	NR
415	17	NR	545	577	NR	675	303	NR	805	5	NR	935	0	NR
420	29	NR	550	606	NR	680	263	NR	810	4	NR	940	0	NR
425	51	NR	555	638	NR	685	226	NR	815	4	NR	945	0	NR
430	87	NR	560	678	NR	690	194	NR	820	3	NR	950	0	NR
435	150	NR	565	720	NR	695	166	NR	825	3	NR	955	0	NR
440	258	NR	570	767	NR	700	142	NR	830	2	NR	960	0	NR
445	454	NR	575	817	NR	705	121	NR	835	2	NR	965	0	NR
450	605	NR	580	866	NR	710	103	NR	840	2	NR	970	0	NR
455	533	NR	585	911	NR	715	87	NR	845	2	NR	975	0	NR
460	362	NR	590	952	NR	720	74	NR	850	1	NR	980	0	NR
465	293	NR	595	981	NR	725	63	NR	855	1	NR	985	0	NR
470	231	NR	600	995	NR	730	54	NR	860	1	NR	990	0	NR
475	176	NR	605	999	NR	735	46	NR	865	1	NR	995	0	NR
480	163	NR	610	989	NR	740	38	NR	870	1	NR	1000	0	NR
485	176	NR	615	964	NR	745	33	NR	875	1	NR			

REPORT NUMBER: SP1-2601-659-1

**Scotopic Flux vs. Wavelength**



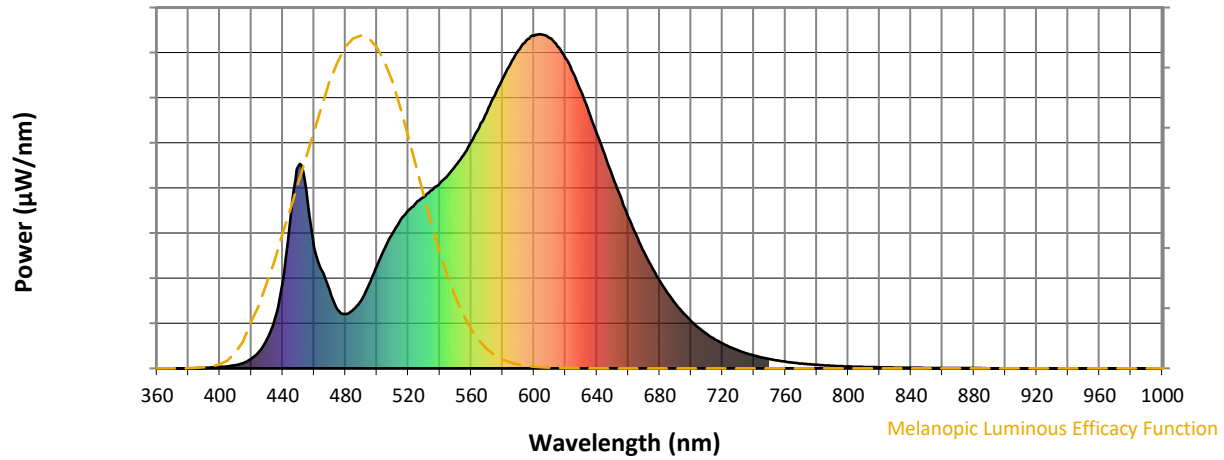
**Scotopic Lumens: NR**

**S/P: 1.35**

$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)
360	0	NR	490	204	NR	620	928	NR	750	28	NR	880	1	NR
365	0	NR	495	251	NR	625	884	NR	755	24	NR	885	1	NR
370	0	NR	500	307	NR	630	828	NR	760	20	NR	890	0	NR
375	0	NR	505	360	NR	635	767	NR	765	17	NR	895	0	NR
380	0	NR	510	405	NR	640	702	NR	770	14	NR	900	0	NR
385	1	NR	515	444	NR	645	639	NR	775	12	NR	905	0	NR
390	2	NR	520	473	NR	650	574	NR	780	11	NR	910	0	NR
395	3	NR	525	495	NR	655	514	NR	785	9	NR	915	0	NR
400	5	NR	530	513	NR	660	453	NR	790	8	NR	920	0	NR
405	6	NR	535	534	NR	665	399	NR	795	7	NR	925	0	NR
410	10	NR	540	554	NR	670	348	NR	800	6	NR	930	0	NR
415	17	NR	545	577	NR	675	303	NR	805	5	NR	935	0	NR
420	29	NR	550	606	NR	680	263	NR	810	4	NR	940	0	NR
425	51	NR	555	638	NR	685	226	NR	815	4	NR	945	0	NR
430	87	NR	560	678	NR	690	194	NR	820	3	NR	950	0	NR
435	150	NR	565	720	NR	695	166	NR	825	3	NR	955	0	NR
440	258	NR	570	767	NR	700	142	NR	830	2	NR	960	0	NR
445	454	NR	575	817	NR	705	121	NR	835	2	NR	965	0	NR
450	605	NR	580	866	NR	710	103	NR	840	2	NR	970	0	NR
455	533	NR	585	911	NR	715	87	NR	845	2	NR	975	0	NR
460	362	NR	590	952	NR	720	74	NR	850	1	NR	980	0	NR
465	293	NR	595	981	NR	725	63	NR	855	1	NR	985	0	NR
470	231	NR	600	995	NR	730	54	NR	860	1	NR	990	0	NR
475	176	NR	605	999	NR	735	46	NR	865	1	NR	995	0	NR
480	163	NR	610	989	NR	740	38	NR	870	1	NR	1000	0	NR
485	176	NR	615	964	NR	745	33	NR	875	1	NR			

REPORT NUMBER: SP1-2601-659-1

Melanopic Flux vs. Wavelength



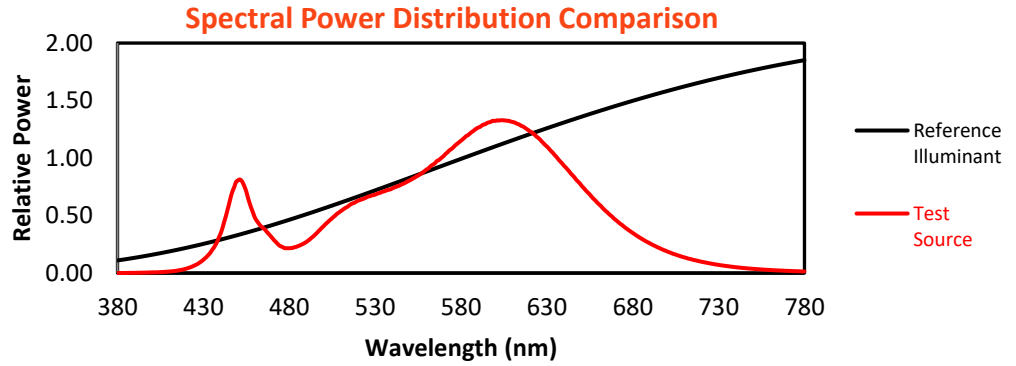
Melanopic Lumens: NR

M/P: 2.61

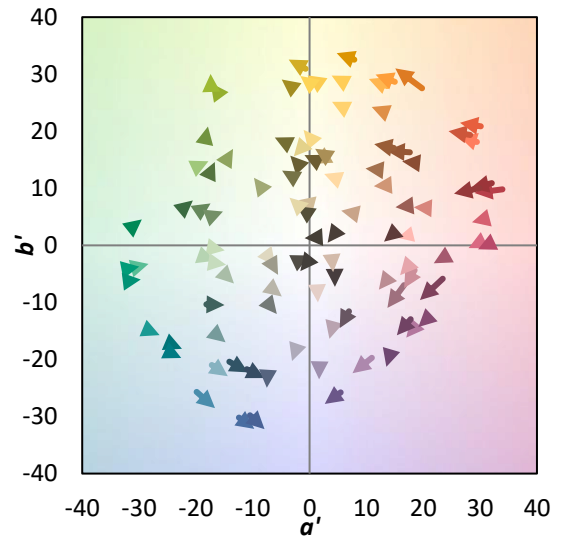
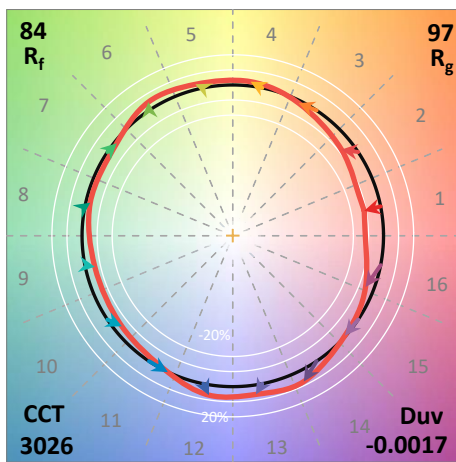
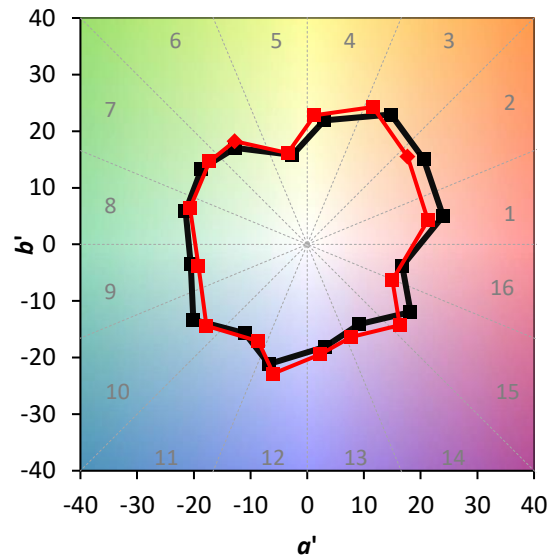
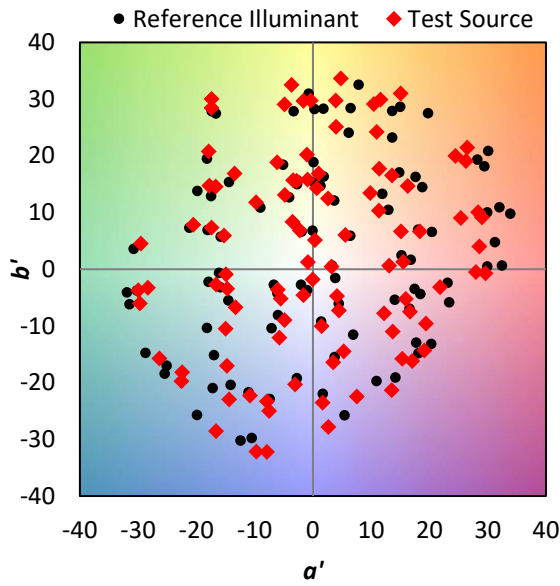
λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)
360	0	NR	490	204	NR	620	928	NR	750	28	NR	880	1	NR
365	0	NR	495	251	NR	625	884	NR	755	24	NR	885	1	NR
370	0	NR	500	307	NR	630	828	NR	760	20	NR	890	0	NR
375	0	NR	505	360	NR	635	767	NR	765	17	NR	895	0	NR
380	0	NR	510	405	NR	640	702	NR	770	14	NR	900	0	NR
385	1	NR	515	444	NR	645	639	NR	775	12	NR	905	0	NR
390	2	NR	520	473	NR	650	574	NR	780	11	NR	910	0	NR
395	3	NR	525	495	NR	655	514	NR	785	9	NR	915	0	NR
400	5	NR	530	513	NR	660	453	NR	790	8	NR	920	0	NR
405	6	NR	535	534	NR	665	399	NR	795	7	NR	925	0	NR
410	10	NR	540	554	NR	670	348	NR	800	6	NR	930	0	NR
415	17	NR	545	577	NR	675	303	NR	805	5	NR	935	0	NR
420	29	NR	550	606	NR	680	263	NR	810	4	NR	940	0	NR
425	51	NR	555	638	NR	685	226	NR	815	4	NR	945	0	NR
430	87	NR	560	678	NR	690	194	NR	820	3	NR	950	0	NR
435	150	NR	565	720	NR	695	166	NR	825	3	NR	955	0	NR
440	258	NR	570	767	NR	700	142	NR	830	2	NR	960	0	NR
445	454	NR	575	817	NR	705	121	NR	835	2	NR	965	0	NR
450	605	NR	580	866	NR	710	103	NR	840	2	NR	970	0	NR
455	533	NR	585	911	NR	715	87	NR	845	2	NR	975	0	NR
460	362	NR	590	952	NR	720	74	NR	850	1	NR	980	0	NR
465	293	NR	595	981	NR	725	63	NR	855	1	NR	985	0	NR
470	231	NR	600	995	NR	730	54	NR	860	1	NR	990	0	NR
475	176	NR	605	999	NR	735	46	NR	865	1	NR	995	0	NR
480	163	NR	610	989	NR	740	38	NR	870	1	NR	1000	0	NR
485	176	NR	615	964	NR	745	33	NR	875	1	NR			

**Summary**

$R_f = 84$   
 $R_g = 97.4$   
 $CIE R_a = 82.7$   
 $R_9 = 7.5$

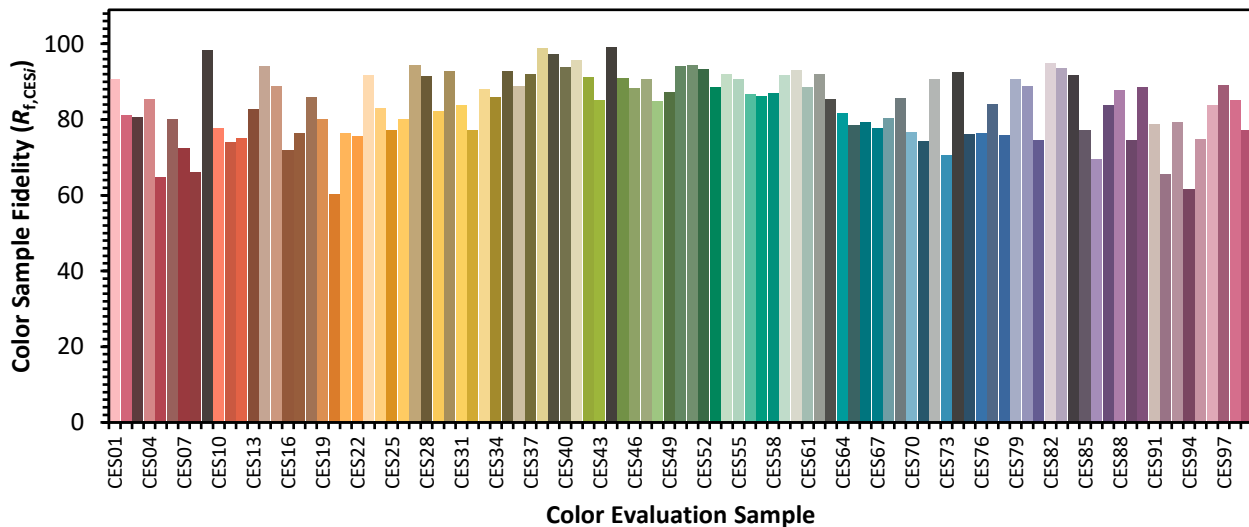


**Color Vector Graphics**

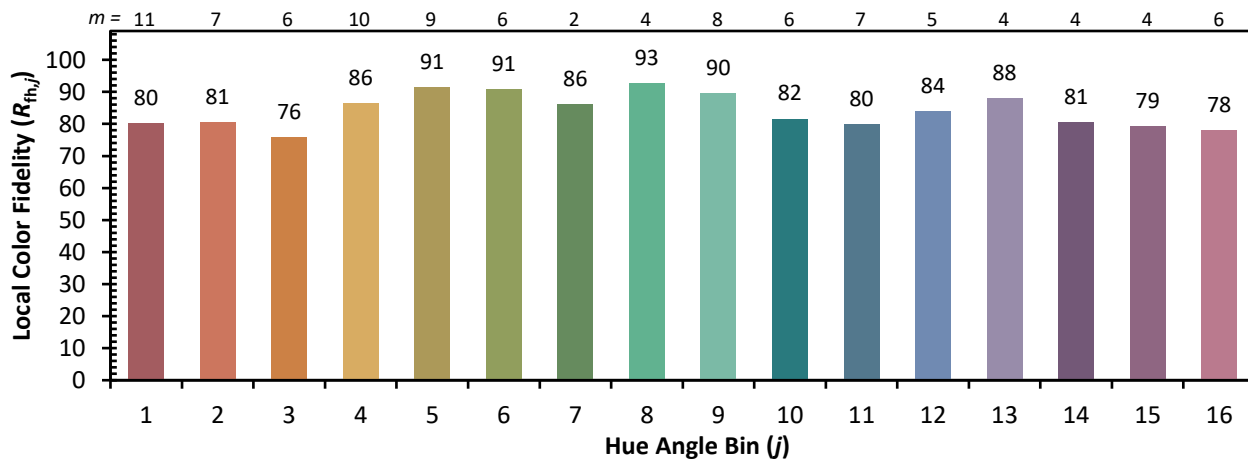
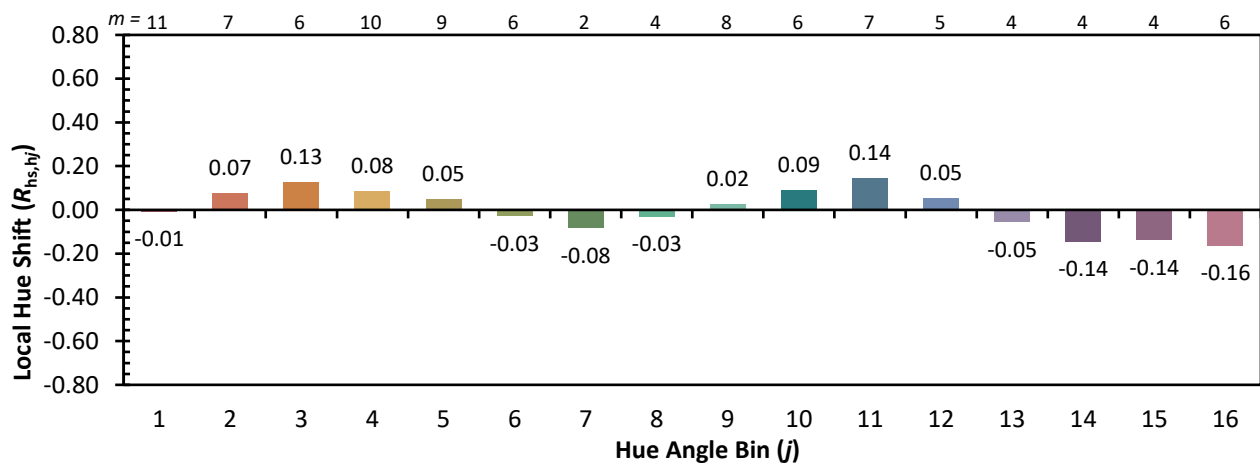
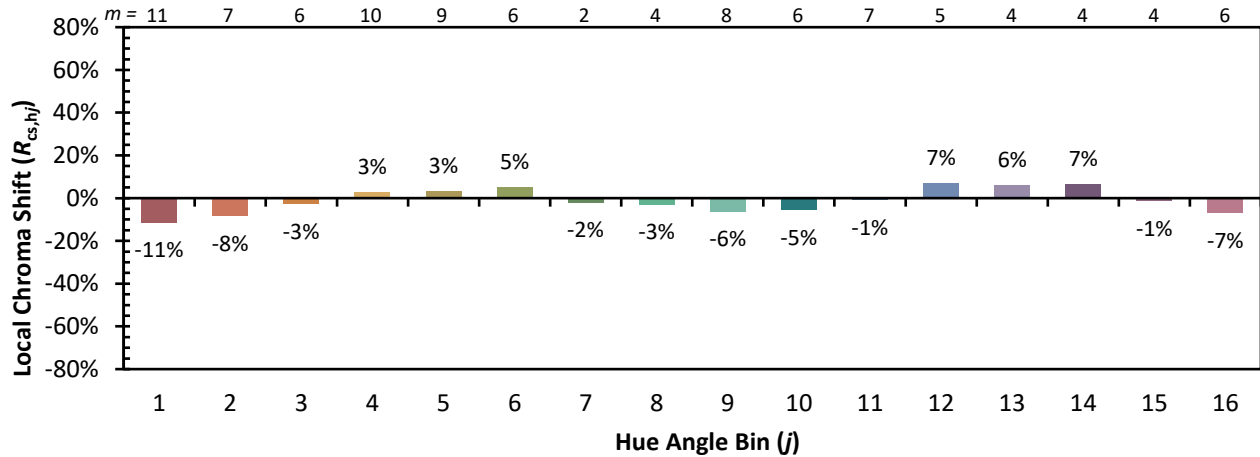


**Individual Sample Fidelity Index ( $R_{f,i}$ )**

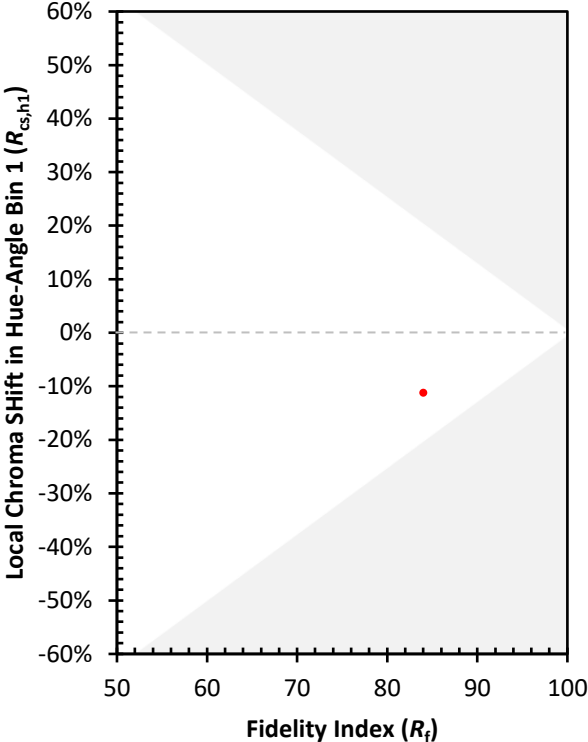
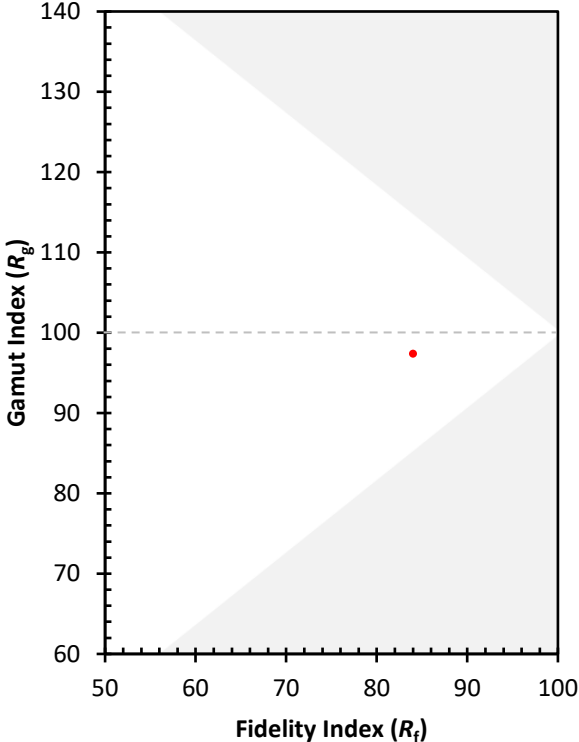
CES01 = 86	CES26 = 80	CES51 = 94	CES76 = 76
CES02 = 63	CES27 = 94	CES52 = 93	CES77 = 84
CES03 = 31	CES28 = 92	CES53 = 88	CES78 = 76
CES04 = 70	CES29 = 82	CES54 = 92	CES79 = 91
CES05 = 50	CES30 = 93	CES55 = 91	CES80 = 89
CES06 = 51	CES31 = 84	CES56 = 87	CES81 = 75
CES07 = 42	CES32 = 77	CES57 = 86	CES82 = 95
CES08 = 41	CES33 = 88	CES58 = 87	CES83 = 93
CES09 = 29	CES34 = 86	CES59 = 92	CES84 = 92
CES10 = 76	CES35 = 93	CES60 = 93	CES85 = 77
CES11 = 59	CES36 = 89	CES61 = 89	CES86 = 69
CES12 = 65	CES37 = 92	CES62 = 92	CES87 = 84
CES13 = 43	CES38 = 99	CES63 = 85	CES88 = 88
CES14 = 74	CES39 = 97	CES64 = 82	CES89 = 75
CES15 = 72	CES40 = 94	CES65 = 79	CES90 = 89
CES16 = 48	CES41 = 96	CES66 = 79	CES91 = 79
CES17 = 50	CES42 = 91	CES67 = 78	CES92 = 66
CES18 = 57	CES43 = 85	CES68 = 80	CES93 = 79
CES19 = 72	CES44 = 99	CES69 = 86	CES94 = 62
CES20 = 67	CES45 = 91	CES70 = 77	CES95 = 75
CES21 = 87	CES46 = 88	CES71 = 74	CES96 = 84
CES22 = 79	CES47 = 91	CES72 = 91	CES97 = 89
CES23 = 92	CES48 = 85	CES73 = 71	CES98 = 85
CES24 = 91	CES49 = 87	CES74 = 93	CES99 = 77
CES25 = 72	CES50 = 94	CES75 = 76	



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)