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: P1449838

Luminaire Tested: **TWC100_T3_80W_5000K**

Issue Date: 5/19/2026

Report Generated By 670246072

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report

Test Information

Test Method:	LM-79-08
Report Number:	P1449838
	TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (20260310005)
Test Lab:	INNOVATION CENTER
Issue Date:	5/19/2026
Manufacturer:	COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line:	LUMARK
Catalog Number:	TWC100_T3_80W_5000K
Description:	Tapered Wall Cutoff Wall Mount Luminaire at, T3 distribution, 80W 5000K settings
Light Source:	-
Ballast/Driver:	-

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	7070 lumens
Efficiency:	N/A
Efficacy:	185.1 lumens/watt
Luminous Opening:	Rectangular (W 0.92' x L: 0.42' x H: 0')
IES Classification:	Type III - Short
BUG Rating:	B2 - U3 - G2

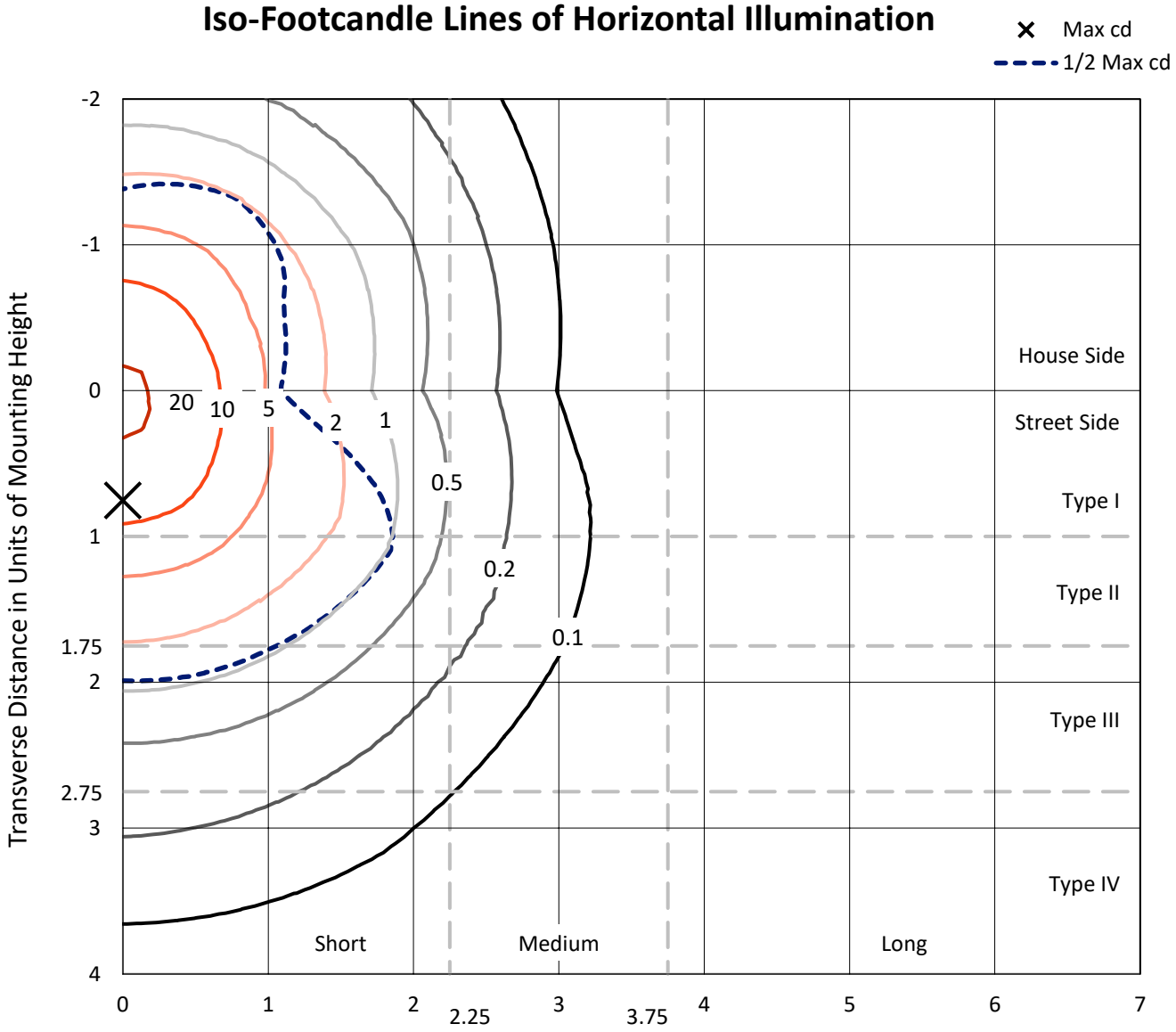
Input Watts (W):	38.2
Input Voltage (V):	NR
Input Current (Ain):	NR
Voltage Rise (V):	NR
Power Factor:	NR
Total Harmonic Distortion (THDi):	NR
Frequency (hertz):	60
Stabilization Time:	NR
Operation Time:	NR
Ambient Temperature (°C):	NR
Test Distance:	25 FT

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report

REPORT NUMBER: P1449838
CATALOG NUMBER: TWC100_T3_80W_5000K

Iso-Footcandle Lines of Horizontal Illumination



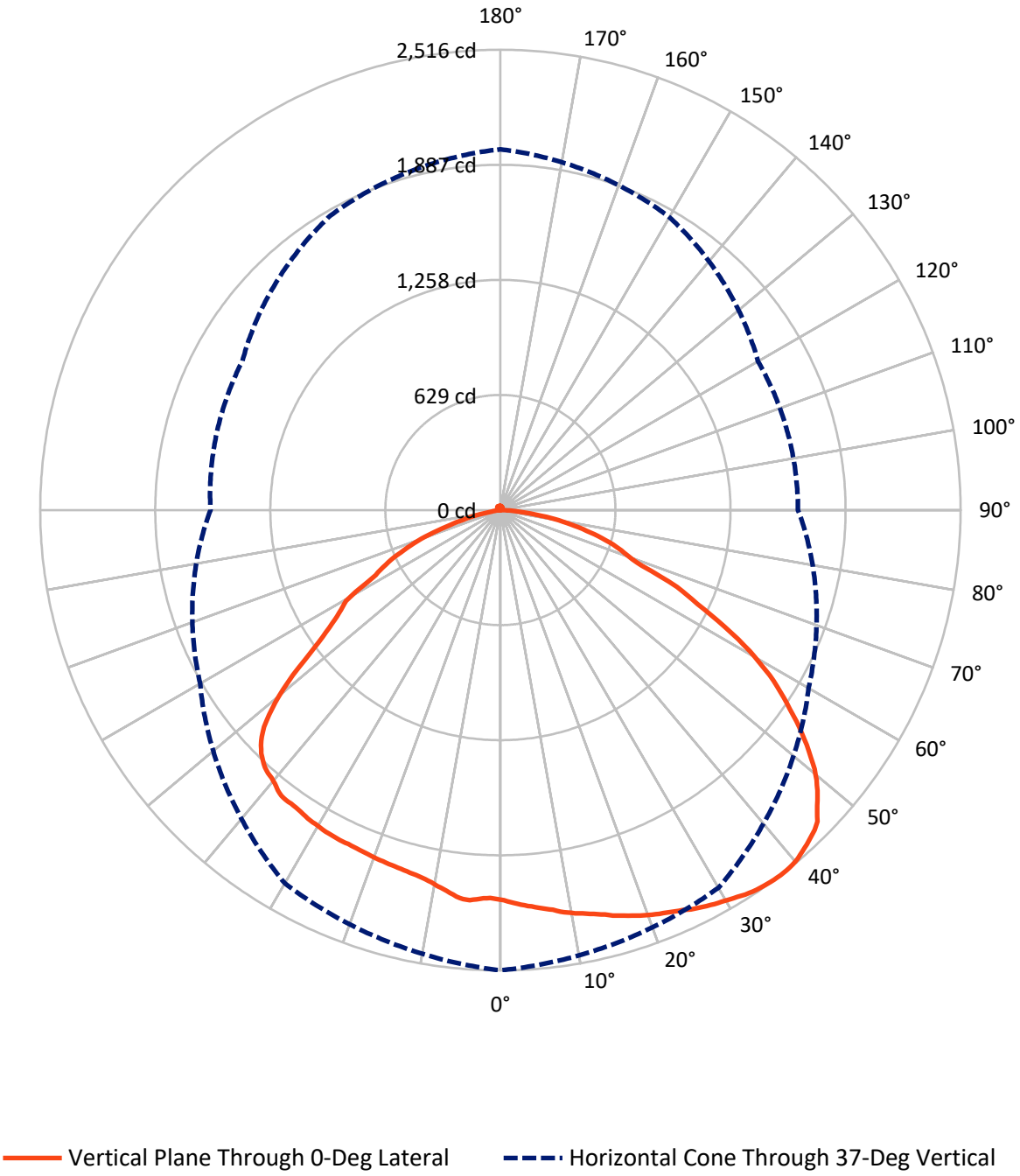
Based on 10 foot mounting height. Maximum calculated value = 21.5 fc
Type III - Short - N/A

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report

REPORT NUMBER: P1449838
CATALOG NUMBER: TWC100_T3_80W_5000K

Luminous Intensity Polar Plot



Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report

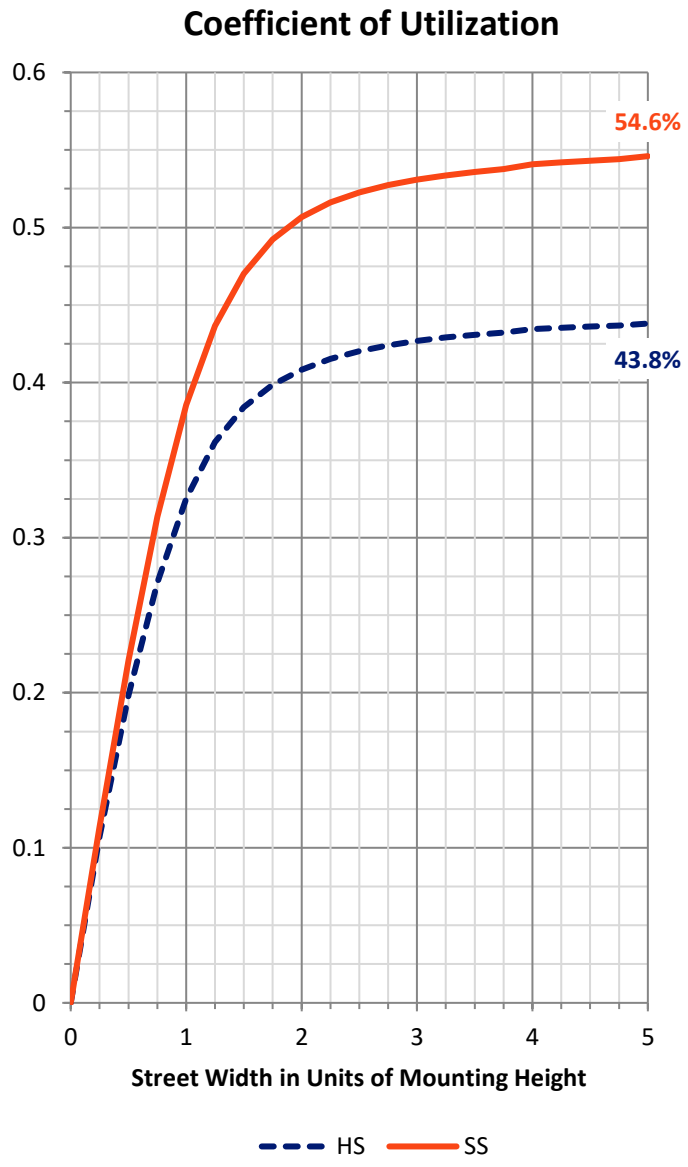
REPORT NUMBER: P1449838
CATALOG NUMBER: TWC100_T3_80W_5000K

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3113.9	42.4	3156.3
	% Fixture	44.0	0.6	44.6
Street Side	Lumens	3879.9	33.8	3913.7
	% Fixture	54.9	0.5	55.4
Total	Lumens	6993.8	76.2	7070.0
	% Fixture	98.9	1.1	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	204.2	2.9
10°-20°	597.8	8.5
20°-30°	949.2	13.4
30°-40°	1229.4	17.4
40°-50°	1382.2	19.5
50°-60°	1278.4	18.1
60°-70°	874.7	12.4
70°-80°	390.0	5.5
80°-90°	88.0	1.2
90°-100°	3.7	0.1
100°-110°	6.9	0.1
110°-120°	10.3	0.1
120°-130°	12.5	0.2
130°-140°	13.1	0.2
140°-150°	12.0	0.2
150°-160°	9.5	0.1
160°-170°	6.1	0.1
170°-180°	2.1	0.0
0°-90°	6993.8	98.9
0°-180°	7070.0	100.0



Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

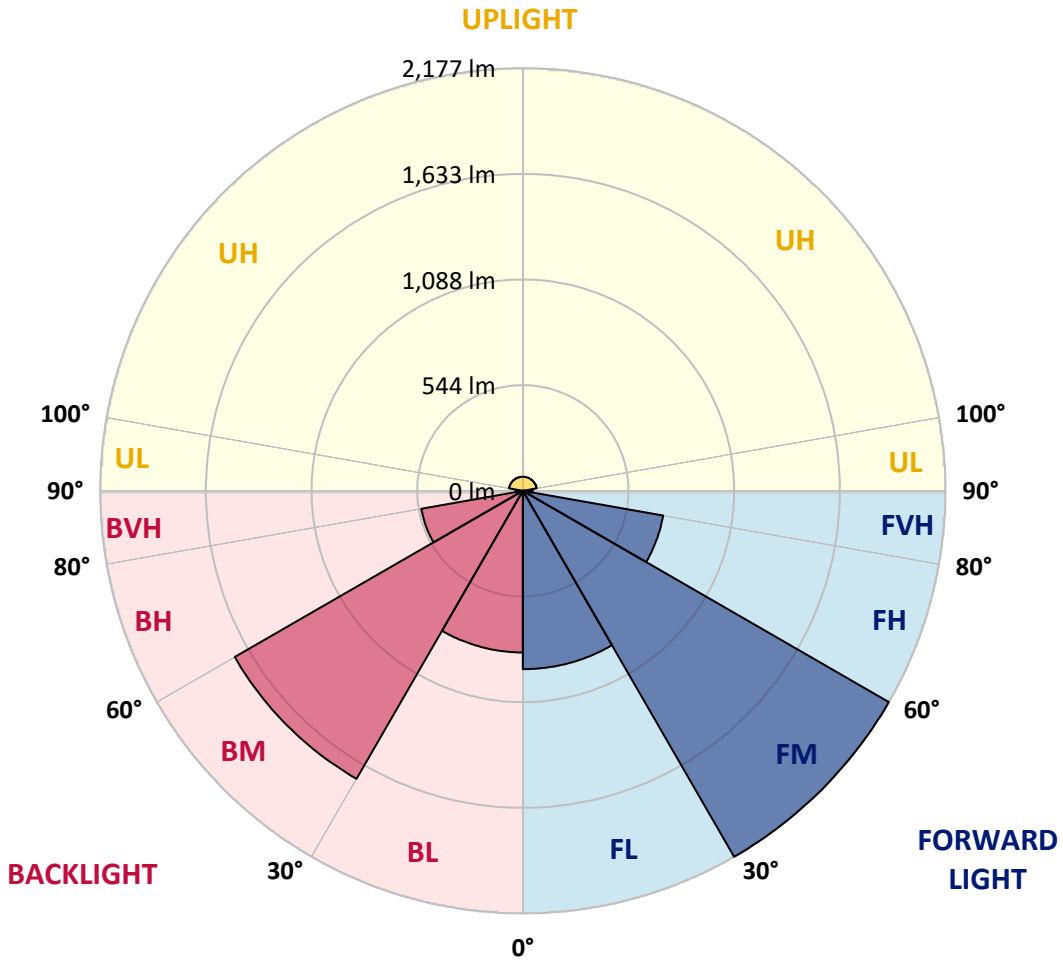
Scaled Data Report

REPORT NUMBER: P1449838
CATALOG NUMBER: TWC100_T3_80W_5000K

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	918.6	13.0			
FM	(30°-60°)	2176.8	30.8			
FH	(60°-80°)	733.6	10.4			G1/1800
FVH	(80°-90°)	51.0	0.7			G1/100
BL	(0°-30°)	832.6	11.8	B2/1000		
BM	(30°-60°)	1713.1	24.2	B2/2500		
BH	(60°-80°)	531.1	7.5	B2/1000		G2/1000
BVH	(80°-90°)	37.1	0.5			G1/100
UL	(90°-100°)	3.7	0.1		U1/10	
UH	(100°-180°)	72.5	1.0		U3/500	

BUG Rating: B2-U3-G2
Type III Short



Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report

REPORT NUMBER: P1449838
CATALOG NUMBER: TWC100_T3_80W_5000K

CANDELA DISTRIBUTION (FULL):

	0°	30°	60°	90°	120°	150°	180°	210°	240°	270°	300°
0°	2132.9	2132.9	2132.9	2132.9	2132.9	2132.9	2132.9	2132.9	2132.9	2132.9	2132.9
1°	2143.5	2139.1	2137.4	2134.0	2126.3	2125.0	2125.4	2123.3	2126.7	2130.2	2139.3
2°	2153.5	2148.4	2141.7	2133.8	2121.3	2117.8	2121.2	2120.8	2120.7	2128.3	2143.6
3°	2164.4	2159.4	2145.2	2127.7	2115.8	2112.6	2123.6	2119.0	2116.1	2125.6	2147.1
4°	2173.3	2166.9	2148.3	2125.5	2110.0	2108.0	2130.8	2122.7	2111.7	2122.1	2146.9
5°	2183.8	2175.3	2152.0	2122.5	2108.0	2112.5	2139.2	2128.8	2105.8	2117.9	2148.2
6°	2194.3	2185.1	2153.1	2117.7	2103.9	2120.6	2136.5	2133.2	2104.9	2113.2	2149.4
7°	2203.5	2192.3	2158.1	2116.5	2101.2	2125.9	2125.7	2129.6	2105.6	2106.9	2150.2
8°	2219.2	2200.5	2159.2	2111.3	2102.2	2125.6	2110.2	2118.1	2107.1	2100.3	2151.2
9°	2230.1	2208.2	2159.5	2104.1	2102.6	2114.4	2095.3	2102.0	2112.9	2093.4	2150.5
10°	2241.0	2213.3	2154.8	2094.3	2104.5	2096.3	2084.0	2086.5	2110.6	2086.1	2149.1
11°	2249.5	2220.6	2154.0	2086.5	2100.5	2076.6	2068.7	2072.7	2104.2	2077.2	2148.5
12°	2260.3	2228.5	2153.5	2077.9	2095.3	2063.9	2058.9	2061.6	2088.6	2067.0	2146.1
13°	2271.5	2240.9	2151.6	2066.9	2085.7	2051.4	2050.5	2047.6	2071.0	2052.4	2143.4
14°	2283.4	2248.0	2152.0	2056.6	2069.8	2039.1	2044.9	2036.7	2050.6	2040.7	2140.2
15°	2299.2	2255.7	2149.1	2046.0	2051.0	2026.7	2040.2	2027.8	2031.7	2028.9	2133.6
16°	2311.0	2262.1	2147.0	2034.9	2031.4	2017.0	2035.2	2019.6	2013.2	2019.0	2129.9
17°	2324.5	2271.4	2144.4	2022.5	2012.8	2009.4	2031.0	2010.1	1995.8	2006.9	2125.6
18°	2337.5	2278.8	2140.1	2009.3	1989.6	2001.6	2027.9	2002.1	1979.4	1993.7	2123.6
19°	2349.8	2287.0	2135.4	1996.1	1971.6	1994.1	2024.7	1995.8	1960.9	1980.1	2117.8
20°	2360.6	2294.1	2130.9	1978.1	1953.1	1985.5	2021.6	1990.8	1944.1	1963.5	2111.4
21°	2371.6	2300.7	2121.7	1963.8	1934.7	1974.8	2018.2	1983.9	1926.5	1949.6	2104.4
22°	2380.9	2306.6	2115.4	1948.9	1917.5	1967.1	2013.1	1977.2	1910.3	1937.0	2092.2
23°	2392.0	2315.3	2107.7	1936.2	1900.0	1959.8	2010.6	1970.2	1890.5	1922.9	2083.3
24°	2402.6	2321.1	2100.4	1921.8	1883.0	1952.9	2008.6	1961.0	1875.3	1910.4	2073.7
25°	2418.0	2326.5	2095.2	1907.3	1865.0	1948.0	2005.9	1955.1	1857.7	1898.7	2064.5
26°	2429.3	2331.9	2086.2	1893.6	1847.6	1942.3	2006.7	1948.1	1841.6	1884.3	2053.2
27°	2439.4	2333.7	2076.8	1877.4	1829.7	1934.7	2004.3	1940.8	1824.2	1868.6	2042.0
28°	2450.7	2339.3	2061.0	1862.4	1811.4	1924.8	2002.2	1934.3	1806.6	1851.1	2030.3
29°	2459.3	2344.6	2050.1	1846.5	1788.3	1916.4	2000.6	1927.3	1788.5	1831.7	2017.3
30°	2469.7	2348.8	2039.1	1828.4	1769.5	1908.1	1995.7	1920.2	1765.9	1807.7	2004.5
31°	2479.9	2357.2	2028.1	1805.7	1749.9	1900.7	1992.2	1911.9	1747.1	1774.6	1991.0
32°	2492.0	2363.0	2016.5	1782.4	1730.1	1891.2	1988.8	1905.4	1729.1	1743.8	1977.5
33°	2499.4	2368.1	2004.4	1756.9	1711.8	1883.7	1984.4	1898.2	1710.6	1712.2	1958.6
34°	2506.1	2373.5	1991.2	1726.4	1691.9	1876.0	1977.6	1891.1	1690.4	1680.8	1943.3
35°	2510.9	2377.0	1977.5	1692.6	1672.2	1867.3	1973.3	1879.3	1670.1	1650.2	1927.0
36°	2513.9	2380.0	1960.8	1659.8	1651.5	1858.9	1970.2	1868.3	1649.0	1617.4	1910.2
37°	2515.6	2383.4	1945.1	1626.7	1625.7	1848.0	1971.4	1858.1	1628.6	1584.7	1895.5
38°	2514.4	2384.0	1929.5	1592.2	1603.5	1837.1	1967.9	1850.4	1606.1	1546.7	1878.2
39°	2510.6	2383.4	1913.9	1551.3	1581.7	1829.2	1955.2	1847.4	1584.1	1513.0	1861.3
40°	2504.1	2379.4	1894.6	1517.0	1559.2	1822.8	1938.3	1841.9	1562.0	1479.4	1839.9
41°	2490.8	2375.1	1880.7	1482.7	1534.5	1813.9	1924.9	1828.3	1538.9	1446.2	1822.8
42°	2478.7	2369.4	1866.5	1449.0	1511.2	1801.3	1918.8	1808.1	1511.3	1413.5	1806.8
43°	2464.9	2358.8	1852.8	1413.4	1487.6	1779.8	1905.9	1792.0	1487.4	1376.5	1791.6
44°	2450.4	2346.7	1842.1	1378.3	1462.6	1768.7	1886.5	1784.2	1462.4	1343.3	1776.1

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report

REPORT NUMBER: P1449838
CATALOG NUMBER: TWC100_T3_80W_5000K

CANDELA DISTRIBUTION (continued):

	0°	30°	60°	90°	120°	150°	180°	210°	240°	270°	300°
45°	2429.3	2332.5	1830.1	1344.2	1434.7	1760.3	1864.5	1770.6	1437.5	1309.4	1763.0
46°	2386.6	2316.2	1819.2	1305.3	1407.5	1747.8	1835.0	1751.5	1415.4	1272.7	1749.8
47°	2350.6	2292.0	1804.6	1269.7	1382.8	1728.8	1798.4	1729.2	1397.0	1237.3	1737.8
48°	2313.2	2260.2	1794.3	1233.3	1362.8	1705.1	1753.5	1706.8	1374.5	1201.9	1725.2
49°	2272.3	2215.0	1783.6	1196.9	1338.4	1682.3	1688.7	1682.0	1338.0	1165.6	1713.8
50°	2225.6	2178.9	1772.9	1159.9	1307.2	1658.7	1619.4	1646.8	1310.5	1123.8	1701.8
51°	2168.4	2143.4	1762.5	1119.1	1275.9	1629.4	1537.4	1605.0	1287.9	1087.2	1689.6
52°	2110.6	2096.7	1751.0	1082.3	1252.5	1586.1	1448.8	1555.5	1263.0	1050.8	1677.6
53°	2049.9	2043.0	1738.2	1044.5	1228.5	1539.5	1348.1	1496.2	1234.2	1013.3	1660.7
54°	1987.9	1975.4	1724.8	1004.6	1201.7	1482.7	1264.4	1425.9	1206.6	973.0	1646.2
55°	1919.4	1913.0	1711.1	966.5	1173.4	1409.8	1193.0	1335.8	1178.3	934.7	1632.3
56°	1858.1	1844.7	1697.4	927.5	1140.2	1331.7	1135.4	1248.9	1148.2	895.5	1620.0
57°	1794.3	1768.1	1681.9	882.7	1109.6	1247.1	1084.9	1164.6	1114.3	854.8	1604.0
58°	1726.4	1697.0	1659.5	841.9	1077.2	1160.8	1045.5	1089.7	1080.1	815.1	1586.5
59°	1644.1	1625.9	1618.3	801.8	1042.5	1073.9	1010.6	1025.2	1045.4	770.1	1556.5
60°	1565.0	1554.2	1584.8	761.5	1003.2	1012.1	978.7	977.9	1009.0	729.6	1516.5
61°	1478.6	1476.6	1550.0	718.2	967.3	963.7	909.2	939.6	966.2	689.3	1483.1
62°	1382.6	1402.6	1498.0	679.7	929.2	924.0	823.6	905.7	929.3	645.8	1441.7
63°	1284.6	1328.6	1434.5	641.1	887.1	888.4	768.7	868.8	889.6	611.0	1384.9
64°	1192.4	1251.7	1357.5	602.2	847.6	856.3	732.4	806.5	843.7	576.7	1306.8
65°	1122.6	1153.1	1267.6	562.4	805.8	796.7	694.5	741.7	786.8	538.6	1220.5
66°	1052.8	1055.7	1150.6	526.4	758.2	727.4	656.4	703.6	722.9	499.6	1118.2
67°	947.5	974.0	1032.8	486.3	695.9	693.9	614.3	676.2	649.4	463.3	999.9
68°	829.1	896.3	905.3	446.5	627.9	667.6	568.9	649.0	578.0	426.2	861.8
69°	768.2	780.5	776.8	403.8	553.5	640.9	527.0	617.7	512.8	383.7	728.3
70°	731.8	684.5	657.9	366.8	482.6	607.3	483.0	582.9	470.6	346.0	599.8
71°	697.6	642.7	575.9	329.9	434.1	576.9	437.5	552.5	441.1	309.9	503.5
72°	661.5	611.4	584.7	291.5	401.8	548.0	383.0	520.6	406.7	275.1	470.7
73°	622.3	583.1	635.8	257.8	371.1	515.1	332.4	487.0	371.9	238.8	553.0
74°	576.1	554.8	499.0	226.6	333.9	482.7	286.1	447.5	351.1	207.8	491.9
75°	530.3	524.7	325.7	197.4	313.0	449.3	244.7	407.1	331.5	179.6	294.6
76°	484.6	486.7	271.7	167.7	293.7	411.1	207.7	360.9	309.9	153.7	233.9
77°	436.6	450.3	239.3	144.4	271.0	360.8	178.1	315.1	288.3	129.1	205.0
78°	392.4	418.7	238.5	123.3	252.1	315.3	150.2	269.7	269.5	108.6	197.4
79°	347.0	390.1	236.2	104.7	234.1	272.9	115.5	234.7	251.2	90.4	209.3
80°	302.6	358.9	179.9	85.7	216.9	237.9	75.8	203.3	230.0	73.5	154.6
81°	253.9	326.4	125.0	68.7	197.2	203.3	47.7	169.7	209.8	58.1	104.5
82°	209.9	283.5	105.7	53.4	178.8	172.4	37.5	133.5	189.7	43.5	86.7
83°	166.1	231.9	92.1	39.0	159.5	134.0	28.9	82.9	168.0	32.9	74.9
84°	127.3	199.9	79.0	28.8	138.8	80.3	21.5	38.3	142.4	24.5	65.6
85°	86.8	167.8	67.2	20.8	118.0	31.4	17.1	19.6	118.1	17.1	55.8
86°	61.6	124.0	56.8	14.5	92.4	16.2	10.7	13.2	96.4	11.9	45.5
87°	36.6	82.7	40.9	8.6	73.3	9.8	6.8	8.2	68.4	7.7	31.2
88°	12.9	30.5	17.7	4.4	42.6	5.2	4.6	5.0	25.7	4.5	10.9
89°	1.6	1.7	1.7	1.8	11.0	2.6	3.7	3.7	3.7	2.5	2.8

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report

REPORT NUMBER: P1449838
CATALOG NUMBER: TWC100_T3_80W_5000K

CANDELA DISTRIBUTION (continued):

	0°	30°	60°	90°	120°	150°	180°	210°	240°	270°	300°
90°	1.0	1.2	1.2	0.9	1.5	1.7	3.8	3.7	3.4	2.3	2.8
91°	1.0	1.3	1.3	1.0	1.6	1.8	4.1	4.0	3.8	2.5	3.1
92°	1.2	1.6	1.4	1.1	1.8	1.9	4.5	4.3	4.1	2.7	3.3
93°	1.4	1.6	1.6	1.3	1.9	2.3	4.8	4.8	4.4	3.0	3.5
94°	1.4	1.8	1.7	1.3	2.1	2.3	5.3	5.1	4.7	3.2	3.7
95°	1.6	2.0	1.9	1.5	2.4	2.5	5.6	5.5	5.1	3.4	4.0
96°	1.7	2.1	2.0	1.7	2.6	2.8	6.0	5.9	5.4	3.7	4.2
97°	2.0	2.4	2.3	1.7	2.8	3.1	6.6	6.3	5.9	4.1	4.6
98°	2.1	2.5	2.3	2.0	3.2	3.4	6.9	6.8	6.2	4.4	4.8
99°	2.3	2.8	2.6	2.1	3.5	3.6	7.5	7.3	6.7	4.6	5.0
100°	2.5	3.0	2.8	2.4	3.8	3.9	8.0	7.7	7.0	4.9	5.4
101°	2.8	3.2	3.0	2.6	4.0	4.2	8.4	8.2	7.5	5.2	5.6
102°	3.1	3.4	3.2	2.8	4.4	4.6	8.9	8.8	7.9	5.5	6.0
103°	3.3	3.8	3.4	3.1	4.6	4.9	9.5	9.1	8.4	5.9	6.2
104°	3.5	4.1	3.7	3.3	4.9	5.3	9.8	9.7	8.8	6.3	6.7
105°	3.9	4.2	3.9	3.5	5.3	5.6	10.4	10.3	9.1	6.6	7.0
106°	4.1	4.6	4.2	3.9	5.6	6.0	10.9	10.8	9.6	7.0	7.3
107°	4.5	4.8	4.5	4.1	5.9	6.4	11.5	11.3	10.1	7.4	7.7
108°	4.7	5.2	4.7	4.5	6.3	6.9	12.1	11.9	10.4	7.8	8.0
109°	5.1	5.5	5.0	4.7	6.8	7.4	12.6	12.4	11.0	8.1	8.3
110°	5.4	5.8	5.3	5.0	7.1	7.8	13.1	12.9	11.4	8.5	8.6
111°	5.8	6.1	5.5	5.3	7.5	8.2	13.9	13.6	11.8	8.9	9.0
112°	6.1	6.4	5.8	5.6	7.8	8.7	14.4	14.1	12.1	9.2	9.5
113°	6.4	6.8	6.1	6.0	8.1	9.3	14.8	14.6	12.6	9.7	9.6
114°	6.8	7.1	6.3	6.3	8.4	9.7	15.4	15.1	13.0	10.0	10.0
115°	7.2	7.5	6.7	6.7	8.8	10.1	15.9	15.5	13.3	10.4	10.4
116°	7.6	7.8	7.0	7.0	9.2	10.8	16.5	16.1	13.7	10.8	10.6
117°	8.1	8.3	7.2	7.3	9.5	11.1	16.9	16.5	14.2	11.2	11.0
118°	8.4	8.5	7.6	7.6	9.9	11.5	17.5	16.9	14.3	11.6	11.3
119°	8.8	9.0	7.9	8.0	10.2	12.0	17.9	17.4	14.7	12.1	11.7
120°	9.2	9.4	8.2	8.3	10.6	12.5	18.4	17.8	15.1	12.4	11.9
121°	9.6	9.7	8.4	8.7	11.0	13.0	18.8	18.2	15.4	12.7	12.3
122°	10.0	10.1	8.8	9.0	11.3	13.3	19.2	18.6	15.7	13.0	12.6
123°	10.4	10.3	9.2	9.3	11.7	13.8	19.5	18.8	16.2	13.4	12.9
124°	10.8	10.7	9.4	9.7	12.0	14.2	20.0	19.3	16.5	13.8	13.3
125°	11.2	11.0	9.8	10.0	12.4	14.5	20.4	19.5	16.8	14.2	13.6
126°	11.5	11.4	10.0	10.4	12.8	15.0	20.7	19.8	16.9	14.4	13.9
127°	12.0	11.7	10.4	10.7	13.0	15.4	20.9	20.0	17.3	14.6	14.2
128°	12.3	12.0	10.7	11.1	13.6	15.7	21.2	20.4	17.6	14.9	14.3
129°	12.8	12.4	11.0	11.4	13.9	16.2	21.4	20.6	17.9	15.4	14.7
130°	13.0	12.7	11.3	11.7	14.3	16.5	21.6	20.8	18.2	15.6	15.0
131°	13.3	13.0	11.6	12.0	14.6	16.7	21.9	21.1	18.5	15.8	15.4
132°	13.7	13.2	11.9	12.5	14.9	17.2	22.1	21.3	18.7	16.1	15.5
133°	14.0	13.6	12.2	12.7	15.3	17.5	22.3	21.4	19.0	16.4	15.8
134°	14.3	13.8	12.5	13.0	15.7	17.8	22.5	21.6	19.2	16.6	16.1

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report

REPORT NUMBER: P1449838
CATALOG NUMBER: TWC100_T3_80W_5000K

CANDELA DISTRIBUTION (continued):

	0°	30°	60°	90°	120°	150°	180°	210°	240°	270°	300°
135°	14.5	14.0	12.8	13.2	16.1	18.0	22.7	21.9	19.4	17.0	16.3
136°	14.8	14.3	13.0	13.6	16.4	18.5	22.8	22.0	19.6	17.2	16.6
137°	15.1	14.6	13.4	13.9	16.8	18.8	23.0	22.1	19.9	17.4	16.9
138°	15.4	14.9	13.6	14.2	17.1	19.1	23.1	22.3	20.0	17.6	17.0
139°	15.6	15.3	14.0	14.5	17.4	19.4	23.1	22.3	20.3	17.8	17.4
140°	16.0	15.5	14.2	14.8	17.7	19.6	23.4	22.5	20.4	18.2	17.6
141°	16.2	15.6	14.6	15.0	18.0	20.0	23.4	22.6	20.6	18.4	17.7
142°	16.5	15.9	14.8	15.2	18.3	20.1	23.5	22.7	20.7	18.5	17.9
143°	16.5	16.2	15.1	15.5	18.5	20.5	23.4	22.8	20.8	18.9	18.2
144°	16.9	16.4	15.4	15.8	18.7	20.7	23.4	22.8	21.1	19.0	18.4
145°	17.1	16.6	15.7	16.1	18.9	20.9	23.5	22.9	21.2	19.2	18.6
146°	17.4	16.8	15.9	16.3	19.2	21.2	23.5	22.9	21.3	19.4	18.8
147°	17.5	17.1	16.2	16.6	19.3	21.4	23.5	23.0	21.4	19.6	19.0
148°	17.8	17.3	16.5	16.9	19.5	21.6	23.4	23.0	21.4	19.8	19.2
149°	18.1	17.6	16.5	17.1	19.7	21.7	23.5	23.1	21.6	20.0	19.5
150°	18.3	17.8	16.9	17.4	19.9	21.9	23.6	23.1	21.6	20.2	19.5
151°	18.5	18.0	17.2	17.6	20.0	22.0	23.5	23.3	21.8	20.3	19.7
152°	18.7	18.2	17.5	17.9	20.2	22.2	23.5	23.2	21.9	20.5	20.0
153°	18.9	18.4	17.7	18.0	20.3	22.3	23.5	23.2	22.0	20.7	20.1
154°	19.2	18.6	17.9	18.3	20.5	22.5	23.5	23.1	22.1	20.8	20.2
155°	19.3	18.9	18.1	18.5	20.7	22.5	23.4	23.1	22.1	20.9	20.5
156°	19.4	18.9	18.4	18.8	20.7	22.5	23.3	23.1	22.2	21.1	20.6
157°	19.5	19.0	18.5	18.9	20.9	22.6	23.2	23.1	22.2	21.2	20.7
158°	19.7	19.2	18.6	19.1	20.9	22.7	23.1	23.1	22.3	21.3	20.8
159°	19.8	19.4	18.9	19.2	21.2	22.7	23.1	23.0	22.3	21.4	21.0
160°	19.9	19.5	19.1	19.5	21.3	22.7	23.0	23.0	22.3	21.5	20.9
161°	20.0	19.6	19.3	19.8	21.5	22.9	22.9	23.0	22.3	21.6	21.2
162°	20.2	19.9	19.5	20.1	21.6	22.9	22.9	22.9	22.3	21.8	21.4
163°	20.2	20.0	19.7	20.2	21.7	23.0	22.7	22.9	22.4	21.9	21.4
164°	20.4	20.0	19.8	20.3	21.8	23.0	22.7	22.8	22.5	21.9	21.4
165°	20.4	20.1	20.0	20.5	21.9	23.0	22.6	22.8	22.5	21.9	21.6
166°	20.6	20.4	20.1	20.6	22.0	23.0	22.6	22.8	22.5	22.1	21.8
167°	20.7	20.5	20.3	20.8	22.1	23.1	22.5	22.8	22.5	22.1	21.8
168°	20.8	20.6	20.5	21.1	22.2	23.1	22.5	22.7	22.6	22.3	22.0
169°	21.0	20.7	20.7	21.2	22.2	23.0	22.6	22.7	22.6	22.3	22.0
170°	21.1	20.8	20.9	21.3	22.3	23.1	22.6	22.6	22.7	22.4	22.1
171°	21.2	20.9	21.1	21.5	22.5	23.2	22.5	22.6	22.7	22.5	22.1
172°	21.5	21.1	21.2	21.6	22.5	23.0	22.6	22.6	22.5	22.5	22.2
173°	21.4	21.3	21.4	21.8	22.6	23.0	22.6	22.6	22.5	22.6	22.4
174°	21.6	21.4	21.4	22.0	22.7	23.0	22.7	22.6	22.5	22.6	22.5
175°	21.9	21.5	21.7	22.1	22.7	23.1	22.7	22.6	22.5	22.7	22.5
176°	22.0	21.6	21.8	22.2	22.7	23.0	22.6	22.5	22.5	22.7	22.6
177°	22.1	21.9	21.9	22.3	22.7	23.0	22.6	22.5	22.5	22.6	22.7
178°	22.3	21.9	22.1	22.4	22.7	23.0	22.6	22.3	22.4	22.7	22.7
179°	22.2	22.1	22.1	22.6	22.8	22.9	22.5	22.3	22.3	22.6	22.8

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report

REPORT NUMBER: P1449838
CATALOG NUMBER: TWC100_T3_80W_5000K

CANDELA DISTRIBUTION (continued):

	0°	30°	60°	90°	120°	150°	180°	210°	240°	270°	300°
180°	*22.5*	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report

REPORT NUMBER: P1449838
CATALOG NUMBER: TWC100_T3_80W_5000K

CANDELA DISTRIBUTION (continued):

	330°	360°
0°	2132.9	2132.9
1°	2141.8	2143.5
2°	2150.4	2153.5
3°	2158.9	2164.4
4°	2166.8	2173.3
5°	2172.8	2183.8
6°	2180.5	2194.3
7°	2187.4	2203.5
8°	2199.0	2219.2
9°	2206.7	2230.1
10°	2213.6	2241.0
11°	2221.4	2249.5
12°	2225.0	2260.3
13°	2231.5	2271.5
14°	2238.8	2283.4
15°	2249.9	2299.2
16°	2257.3	2311.0
17°	2264.3	2324.5
18°	2271.8	2337.5
19°	2277.7	2349.8
20°	2284.6	2360.6
21°	2289.9	2371.6
22°	2294.2	2380.9
23°	2298.9	2392.0
24°	2303.6	2402.6
25°	2308.4	2418.0
26°	2317.3	2429.3
27°	2321.9	2439.4
28°	2326.4	2450.7
29°	2329.6	2459.3
30°	2330.2	2469.7
31°	2334.7	2479.9
32°	2338.6	2492.0
33°	2347.3	2499.4
34°	2351.2	2506.1
35°	2354.4	2510.9
36°	2356.7	2513.9
37°	*2356.2*	*2515.6*
38°	2356.7	2514.4
39°	2354.4	2510.6
40°	2349.7	2504.1
41°	2340.0	2490.8
42°	2332.1	2478.7
43°	2319.6	2464.9
44°	2306.6	2450.4

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report

REPORT NUMBER: P1449838
CATALOG NUMBER: TWC100_T3_80W_5000K

CANDELA DISTRIBUTION (continued):

	330°	360°
45°	2292.3	2429.3
46°	2274.8	2386.6
47°	2253.1	2350.6
48°	2215.5	2313.2
49°	2165.1	2272.3
50°	2130.6	2225.6
51°	2090.8	2168.4
52°	2041.5	2110.6
53°	1982.6	2049.9
54°	1921.3	1987.9
55°	1855.1	1919.4
56°	1784.9	1858.1
57°	1706.7	1794.3
58°	1634.5	1726.4
59°	1562.3	1644.1
60°	1480.4	1565.0
61°	1407.5	1478.6
62°	1335.4	1382.6
63°	1262.7	1284.6
64°	1180.4	1192.4
65°	1088.2	1122.6
66°	995.0	1052.8
67°	923.2	947.5
68°	830.6	829.1
69°	710.5	768.2
70°	641.0	731.8
71°	607.8	697.6
72°	577.7	661.5
73°	549.1	622.3
74°	520.1	576.1
75°	489.3	530.3
76°	449.3	484.6
77°	415.0	436.6
78°	386.0	392.4
79°	358.5	347.0
80°	326.6	302.6
81°	294.0	253.9
82°	248.1	209.9
83°	206.4	166.1
84°	175.6	127.3
85°	134.5	86.8
86°	101.9	61.6
87°	57.7	36.6
88°	4.4	12.9
89°	2.8	1.6

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report

REPORT NUMBER: P1449838
CATALOG NUMBER: TWC100_T3_80W_5000K

CANDELA DISTRIBUTION (continued):

	330°	360°
90°	3.1	1.0
91°	3.2	1.0
92°	3.5	1.2
93°	3.8	1.4
94°	4.1	1.4
95°	4.4	1.6
96°	4.7	1.7
97°	5.0	2.0
98°	5.3	2.1
99°	5.7	2.3
100°	6.1	2.5
101°	6.4	2.8
102°	6.8	3.1
103°	7.1	3.3
104°	7.5	3.5
105°	7.9	3.9
106°	8.3	4.1
107°	8.7	4.5
108°	9.0	4.7
109°	9.3	5.1
110°	9.8	5.4
111°	10.1	5.8
112°	10.6	6.1
113°	11.0	6.4
114°	11.3	6.8
115°	11.7	7.2
116°	12.1	7.6
117°	12.6	8.1
118°	12.9	8.4
119°	13.2	8.8
120°	13.6	9.2
121°	13.9	9.6
122°	14.3	10.0
123°	14.4	10.4
124°	14.9	10.8
125°	15.1	11.2
126°	15.5	11.5
127°	15.6	12.0
128°	15.9	12.3
129°	16.1	12.8
130°	16.4	13.0
131°	16.6	13.3
132°	16.8	13.7
133°	17.0	14.0
134°	17.2	14.3

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report

REPORT NUMBER: P1449838
CATALOG NUMBER: TWC100_T3_80W_5000K

CANDELA DISTRIBUTION (continued):

	330°	360°
135°	17.6	14.5
136°	17.7	14.8
137°	17.8	15.1
138°	18.0	15.4
139°	18.2	15.6
140°	18.4	16.0
141°	18.5	16.2
142°	18.7	16.5
143°	19.0	16.5
144°	19.0	16.9
145°	19.1	17.1
146°	19.3	17.4
147°	19.3	17.5
148°	19.7	17.8
149°	19.8	18.1
150°	19.8	18.3
151°	19.9	18.5
152°	20.1	18.7
153°	20.1	18.9
154°	20.2	19.2
155°	20.3	19.3
156°	20.4	19.4
157°	20.5	19.5
158°	20.6	19.7
159°	20.7	19.8
160°	20.8	19.9
161°	21.0	20.0
162°	20.9	20.2
163°	21.1	20.2
164°	21.2	20.4
165°	21.2	20.4
166°	21.4	20.6
167°	21.5	20.7
168°	21.6	20.8
169°	21.6	21.0
170°	21.8	21.1
171°	22.0	21.2
172°	22.0	21.5
173°	22.2	21.4
174°	22.2	21.6
175°	22.5	21.9
176°	22.5	22.0
177°	22.6	22.1
178°	22.7	22.3
179°	22.8	22.2

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report

REPORT NUMBER: P1449838
CATALOG NUMBER: TWC100_T3_80W_5000K

CANDELA DISTRIBUTION (continued):

	330°	360°
180°	22.5	22.5

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

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

Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.05

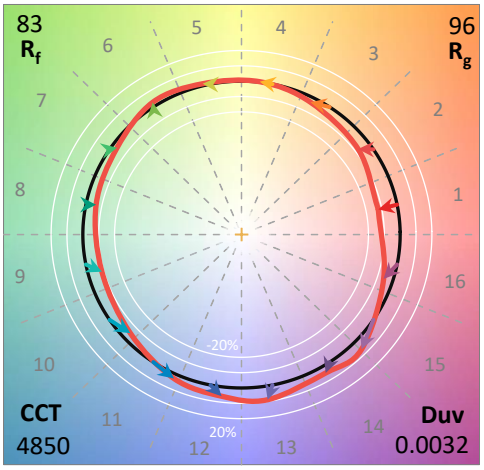
Test Information

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
Rf:	83.1
Rg:	95.8

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



Test Conditions

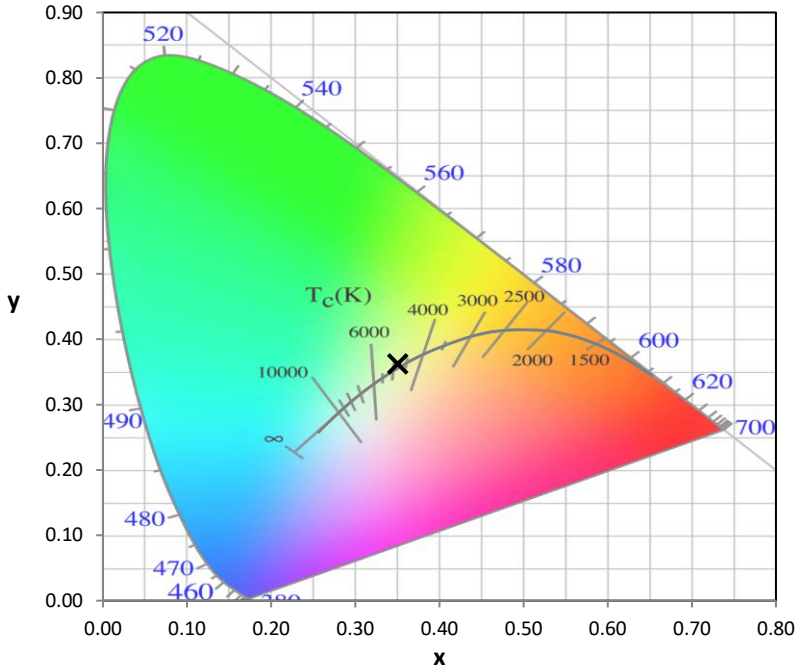
Stabilization Time:	25M
Operation Time:	1H 25M
Sphere Temperature (°C):	24.8

REPORT NUMBER: SP1-2601-659-3

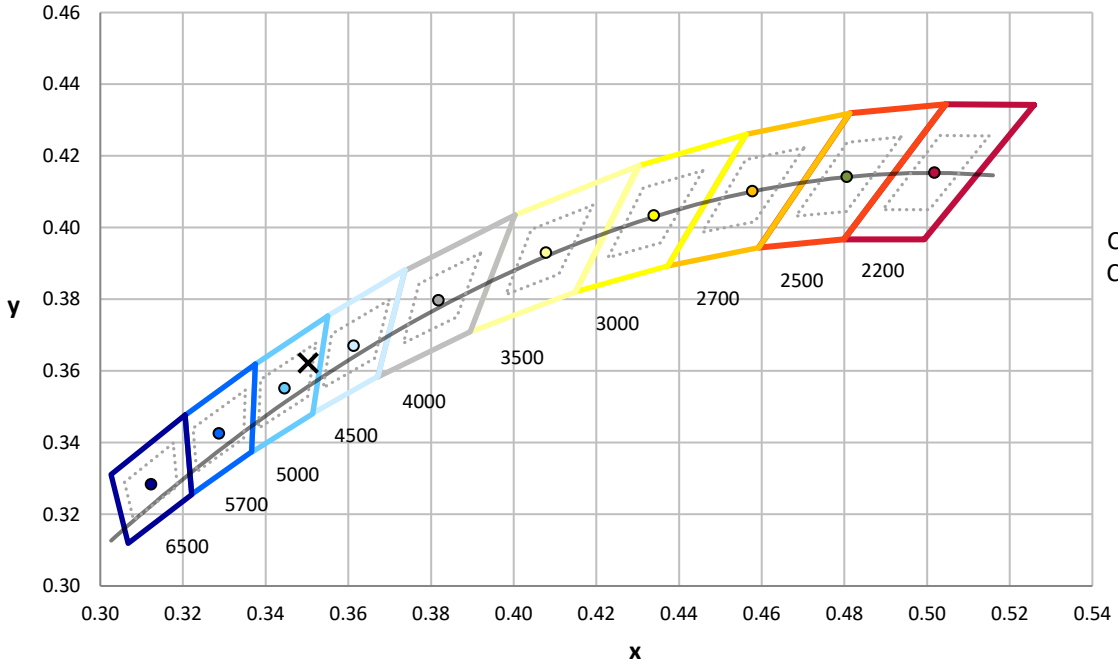
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	76INCH SPHERE IN0058	12/16/2025	6/16/2026
Power Meter	XITRON INXT2011004	10/21/2025	10/21/2026
AC Power Source	CHROMA 61603 IN0063	10/21/2025	10/21/2026
DC Power Source	AGILENT E3634A IN0208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

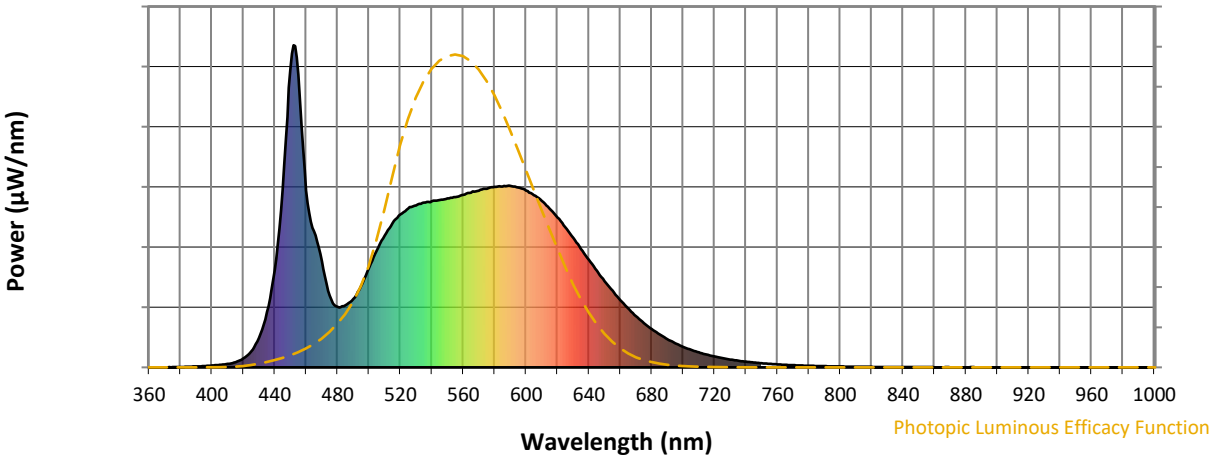


CCT = 4850K
CIE x = 0.3503
CIE y = 0.3623
Duv = 0.0032

Point lies inside the ANSI 5000K 4-step quadrangle

REPORT NUMBER: SP1-2601-659-3

Photopic Flux vs. Wavelength

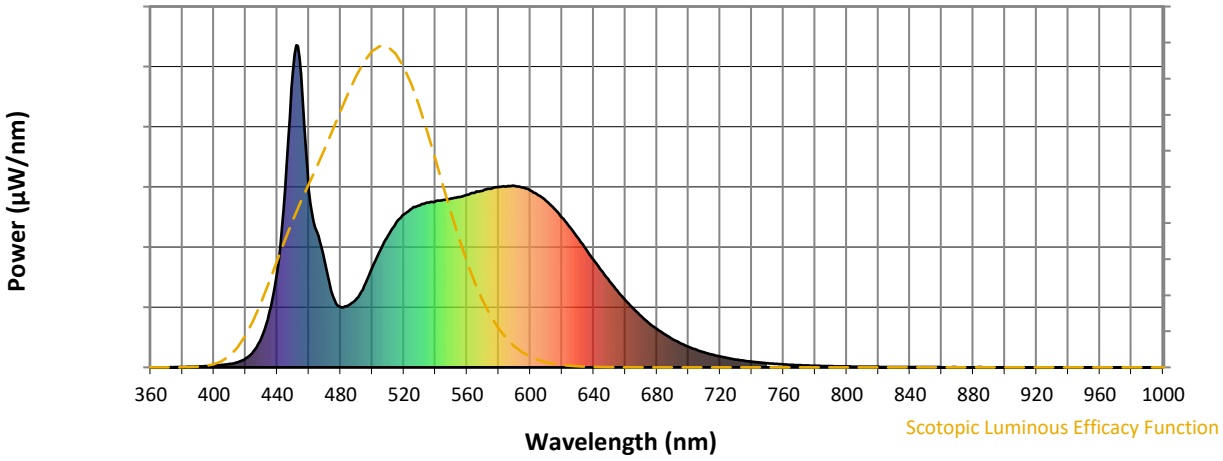


Photopic Lumens: NR

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

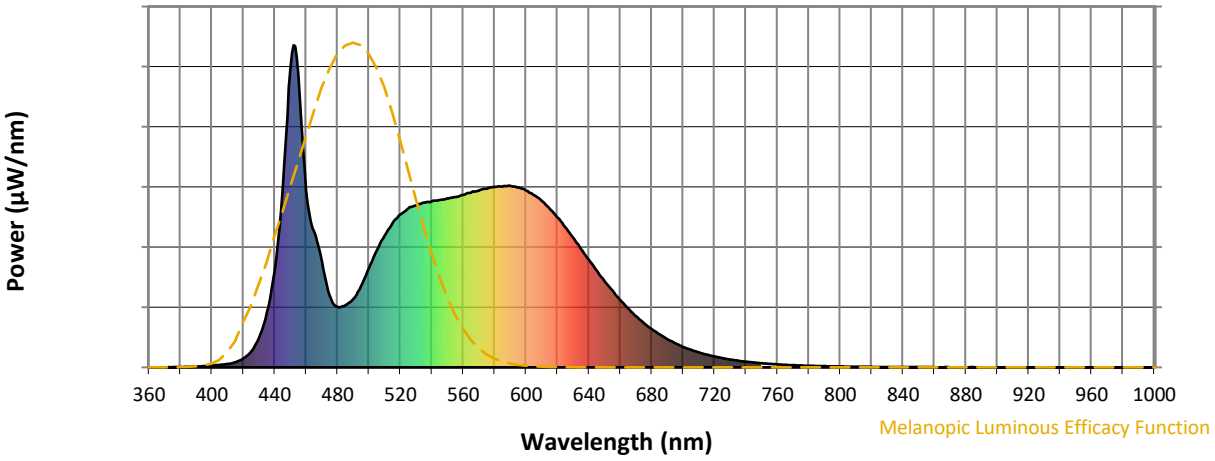


Scotopic Lumens: NR **S/P: 1.9**

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			

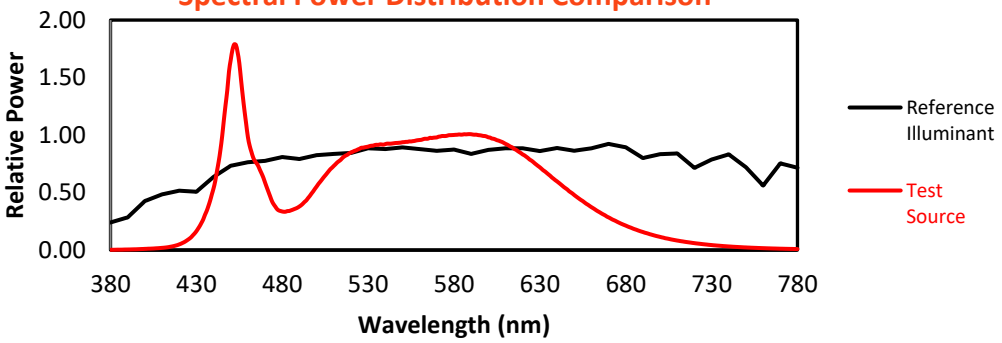
REPORT NUMBER: SP1-2601-659-3

TM-30-18

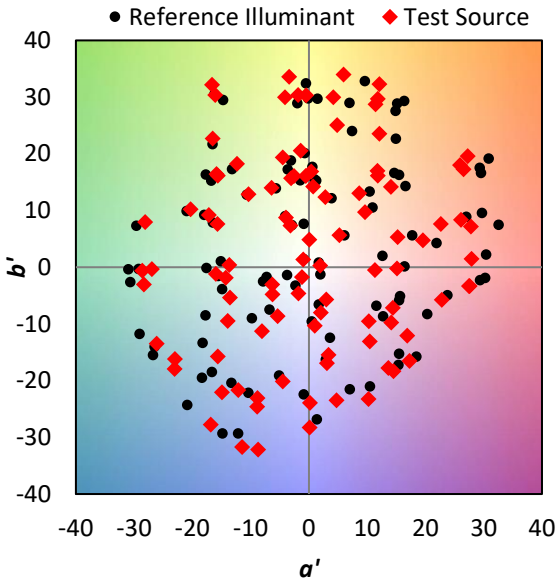
Summary

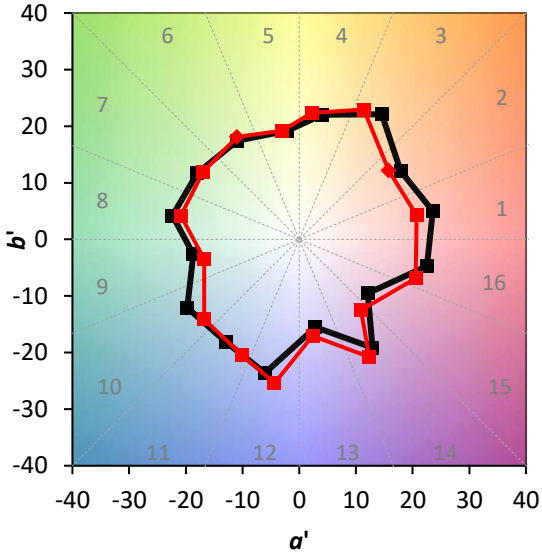
R_f = 83.1
R_g = 95.8
CIE R_a = 82.6
R_9 = 8.5

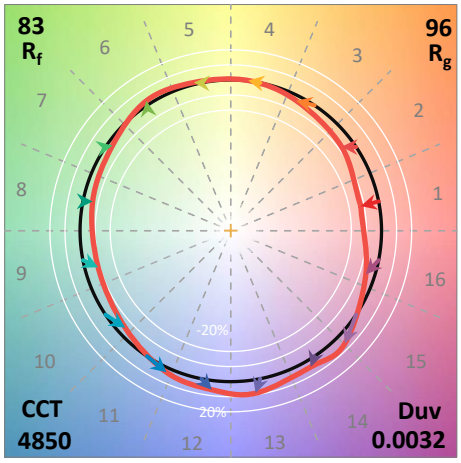
Spectral Power Distribution Comparison

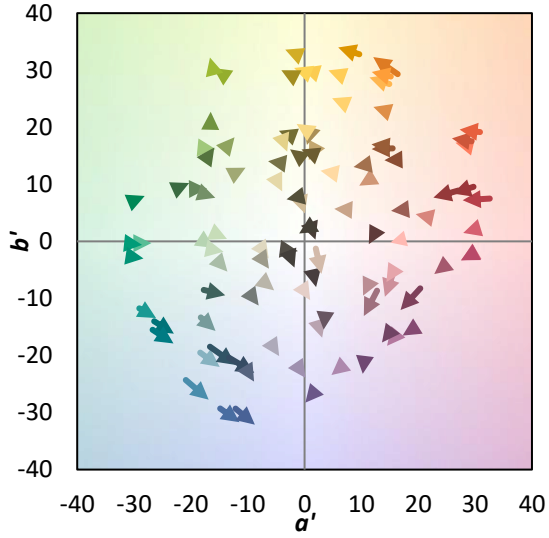


Color Vector Graphics







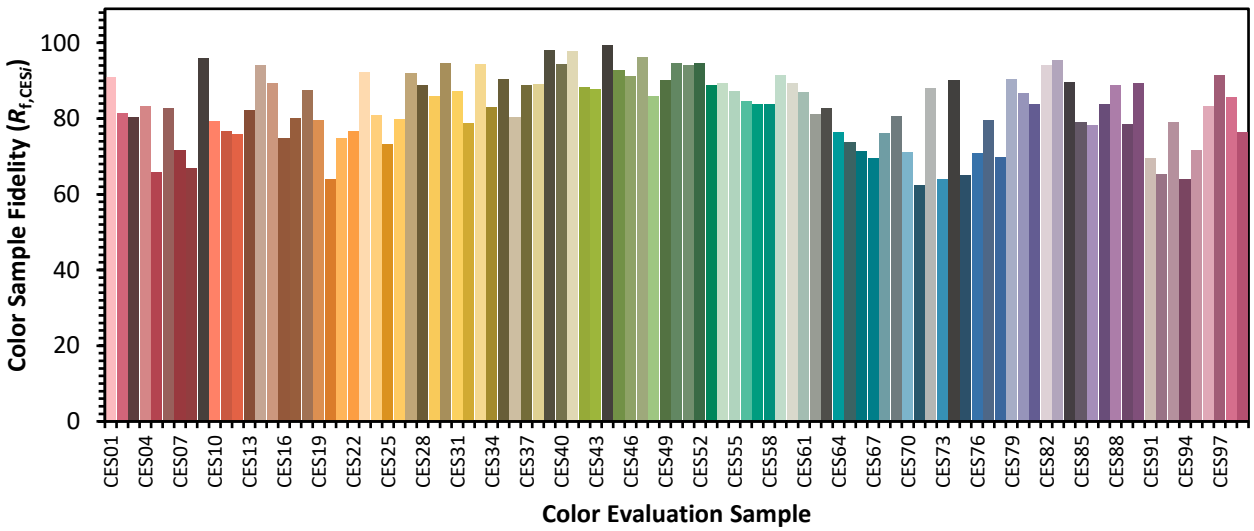


REPORT NUMBER: SP1-2601-659-3

TM-30-18

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

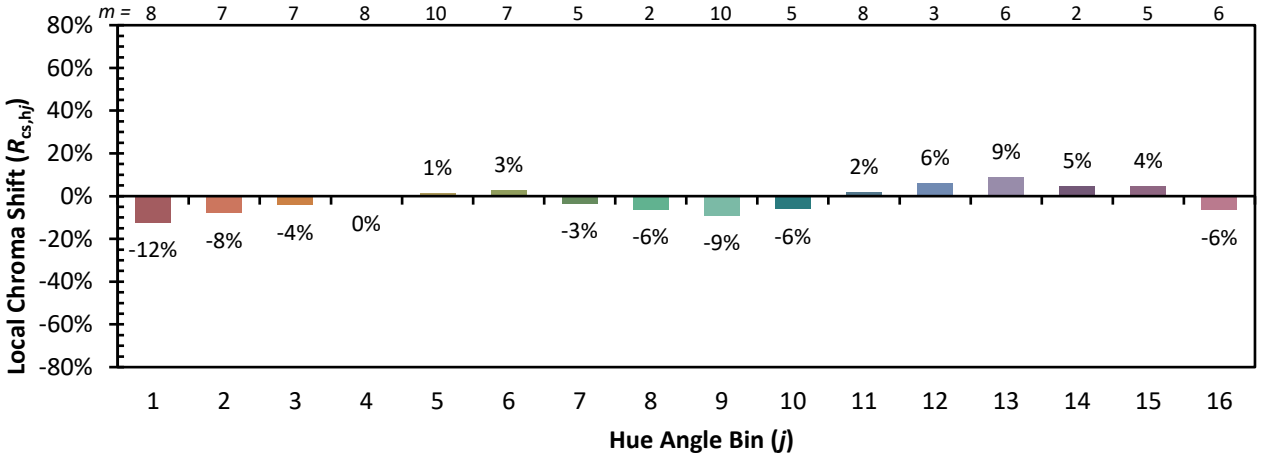
CES01 = 85	CES26 = 80	CES51 = 94	CES76 = 71
CES02 = 60	CES27 = 92	CES52 = 95	CES77 = 80
CES03 = 30	CES28 = 89	CES53 = 89	CES78 = 70
CES04 = 69	CES29 = 86	CES54 = 89	CES79 = 90
CES05 = 47	CES30 = 95	CES55 = 87	CES80 = 87
CES06 = 50	CES31 = 87	CES56 = 85	CES81 = 84
CES07 = 40	CES32 = 79	CES57 = 84	CES82 = 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	

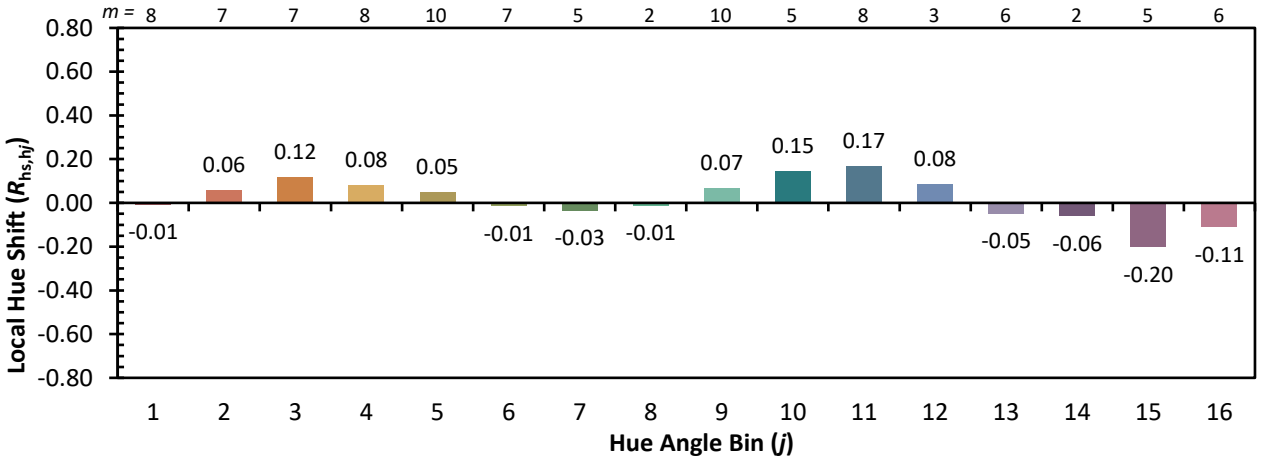


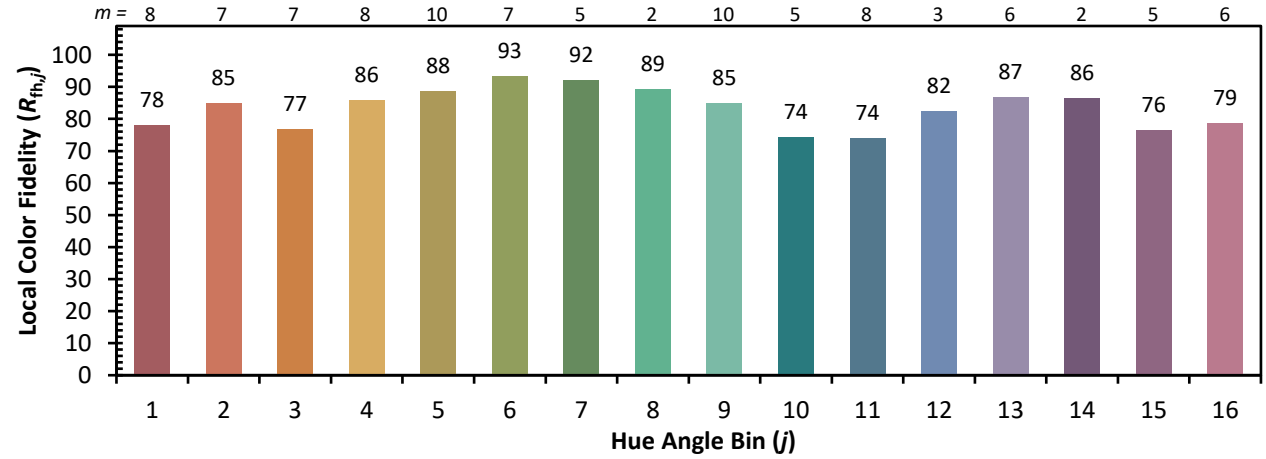
REPORT NUMBER: SP1-2601-659-3

TM-30-18

Color Rendition by Hue-Angle Bin



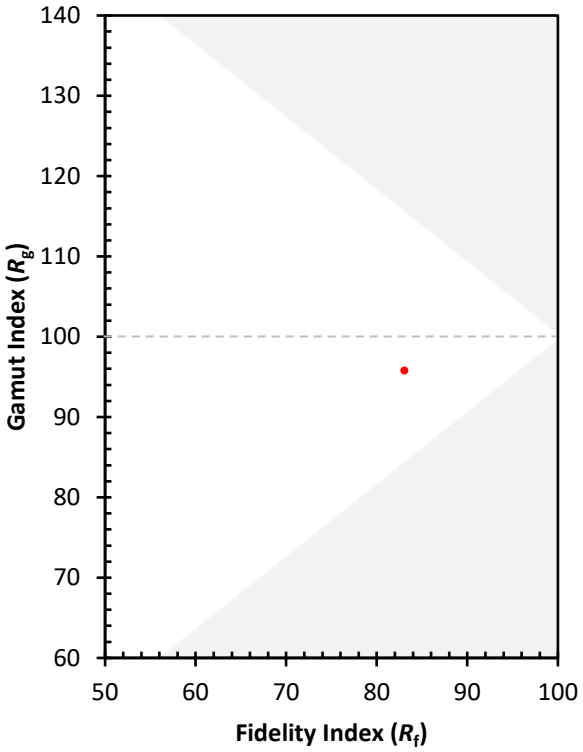


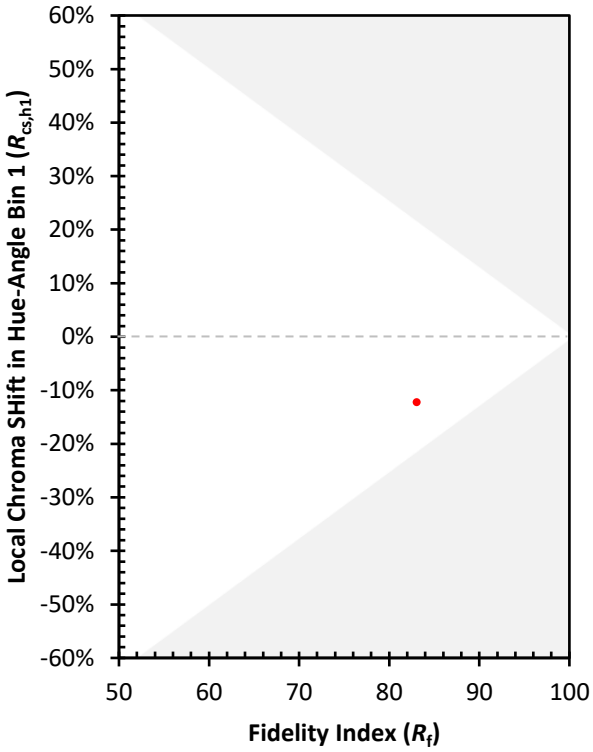


REPORT NUMBER: SP1-2601-659-3

TM-30-18

Measure Comparisons





(END OF REPORT)