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: P1449826

Luminaire Tested: **TWC100_T2_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:	P1449826
	TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (20260310022)
Test Lab:	INNOVATION CENTER
Issue Date:	5/19/2026
Manufacturer:	COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line:	LUMARK
Catalog Number:	TWC100_T2_80W_5000K
Description:	Tapered Wall Cutoff Wall Mount Luminaire at, T2 distribution, 80W 5000K settings
Light Source:	-
Ballast/Driver:	-

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	7041 lumens
Efficiency:	N/A
Efficacy:	180.1 lumens/watt
Luminous Opening:	Rectangular (W 0.92' x L: 0.42' x H: 0')
IES Classification:	Type II - Short
BUG Rating:	B2 - U3 - G2

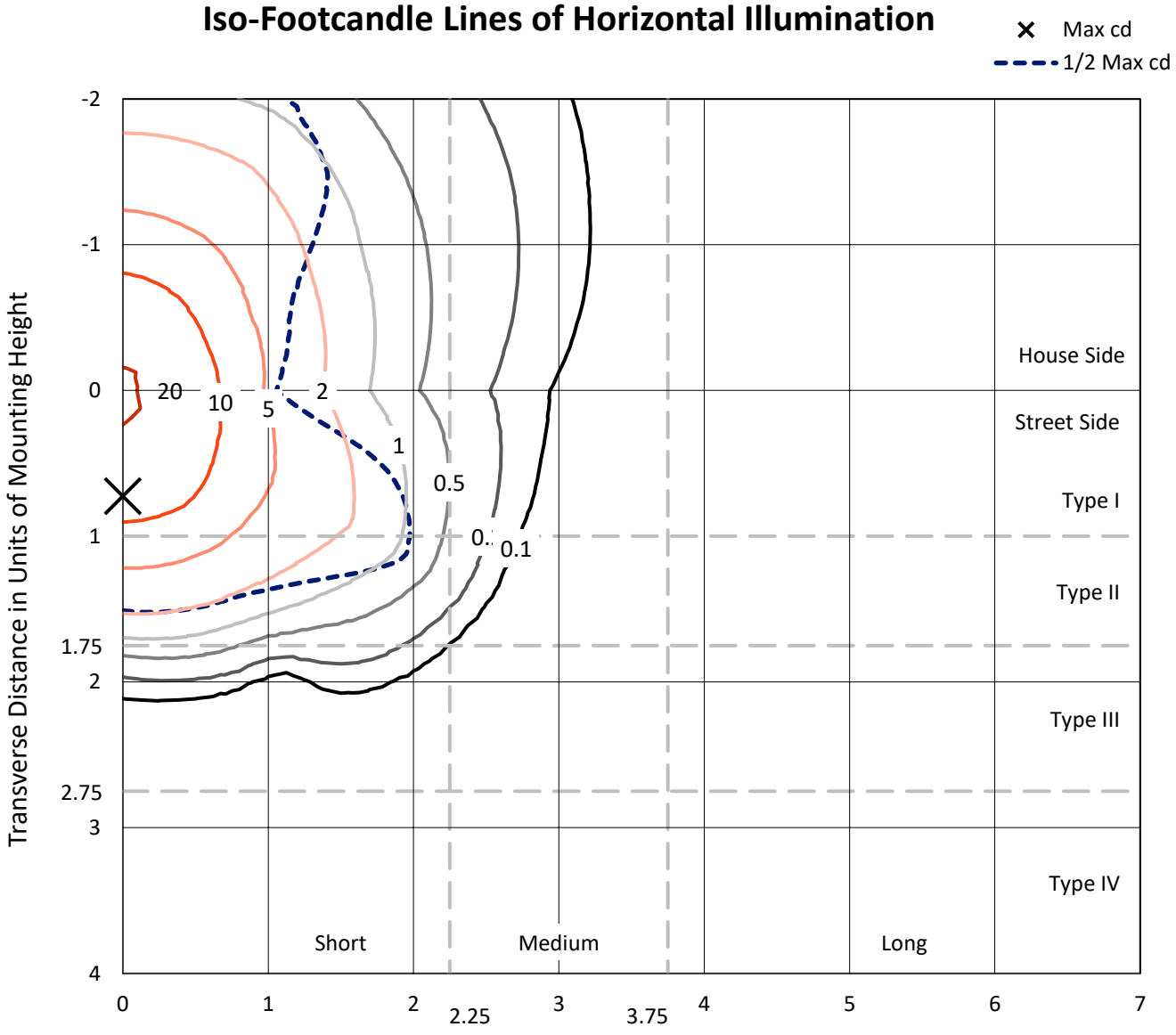
Input Watts (W):	39.1
Input Voltage (V):	NR
Input Current (Ain):	NR
Voltage Rise (V):	NR
Power Factor:	NR
Total Harmonic Distortion (THDi):	NR
Frequency (hertz):	60
Stabilization Time:	NR
Operation Time:	NR
Ambient Temperature (°C):	NR
Test Distance:	25 FT

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

Scaled Data Report

REPORT NUMBER: P1449826
CATALOG NUMBER: TWC100_T2_80W_5000K

Iso-Footcandle Lines of Horizontal Illumination



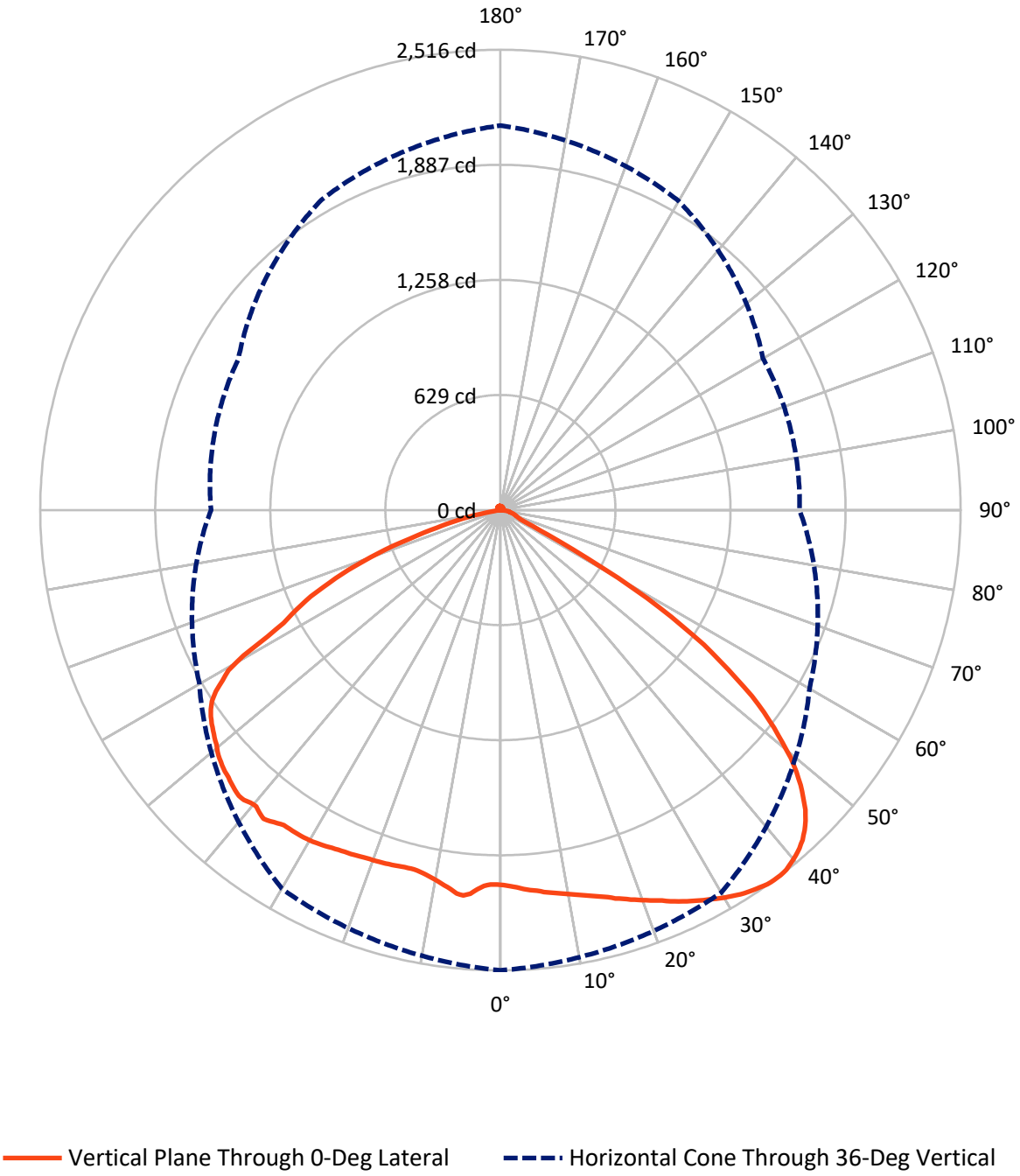
Based on 10 foot mounting height. Maximum calculated value = 20.6 fc
Type II - Short - N/A

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

Scaled Data Report

REPORT NUMBER: P1449826
CATALOG NUMBER: TWC100_T2_80W_5000K

Luminous Intensity Polar Plot



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

Scaled Data Report

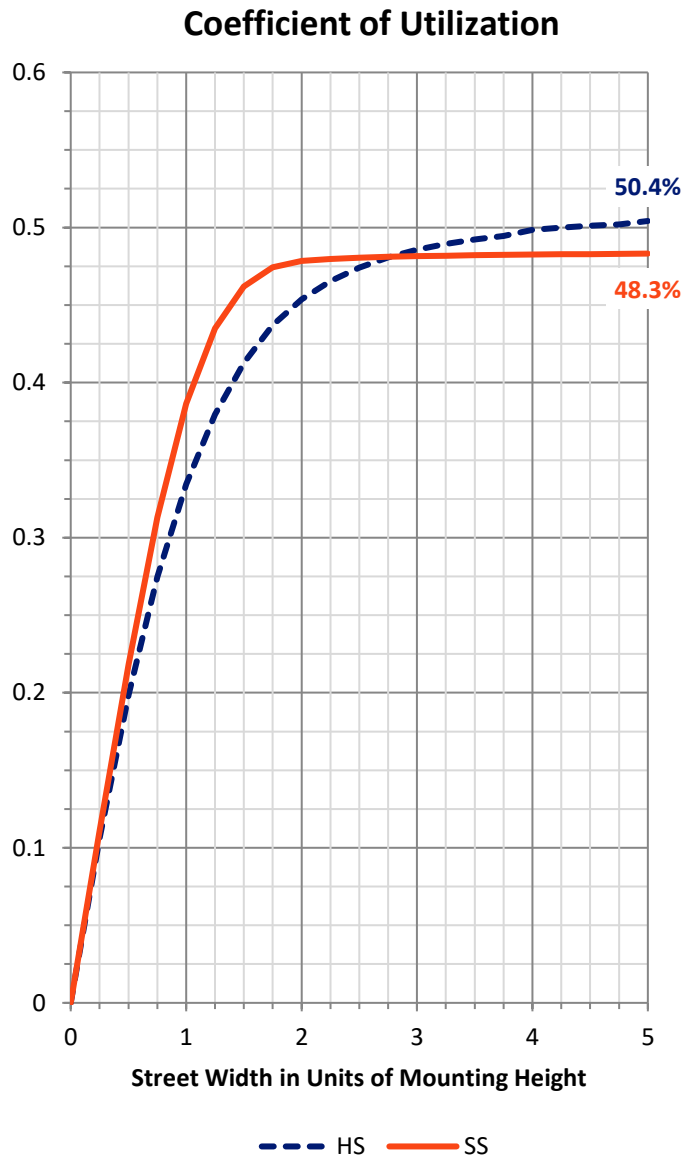
REPORT NUMBER: P1449826
CATALOG NUMBER: TWC100_T2_80W_5000K

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3564.0	38.0	3602.0
	% Fixture	50.6	0.5	51.2
Street Side	Lumens	3401.0	38.0	3439.0
	% Fixture	48.3	0.5	48.8
Total	Lumens	6965.0	76.0	7041.0
	% Fixture	98.9	1.1	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	197.4	2.8
10°-20°	580.9	8.3
20°-30°	938.0	13.3
30°-40°	1243.2	17.7
40°-50°	1423.5	20.2
50°-60°	1349.7	19.2
60°-70°	844.9	12.0
70°-80°	321.9	4.6
80°-90°	65.5	0.9
90°-100°	3.3	0.0
100°-110°	6.7	0.1
110°-120°	10.3	0.1
120°-130°	12.7	0.2
130°-140°	13.3	0.2
140°-150°	12.1	0.2
150°-160°	9.5	0.1
160°-170°	6.0	0.1
170°-180°	2.1	0.0
0°-90°	6965.0	98.9
0°-180°	7041.0	100.0



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

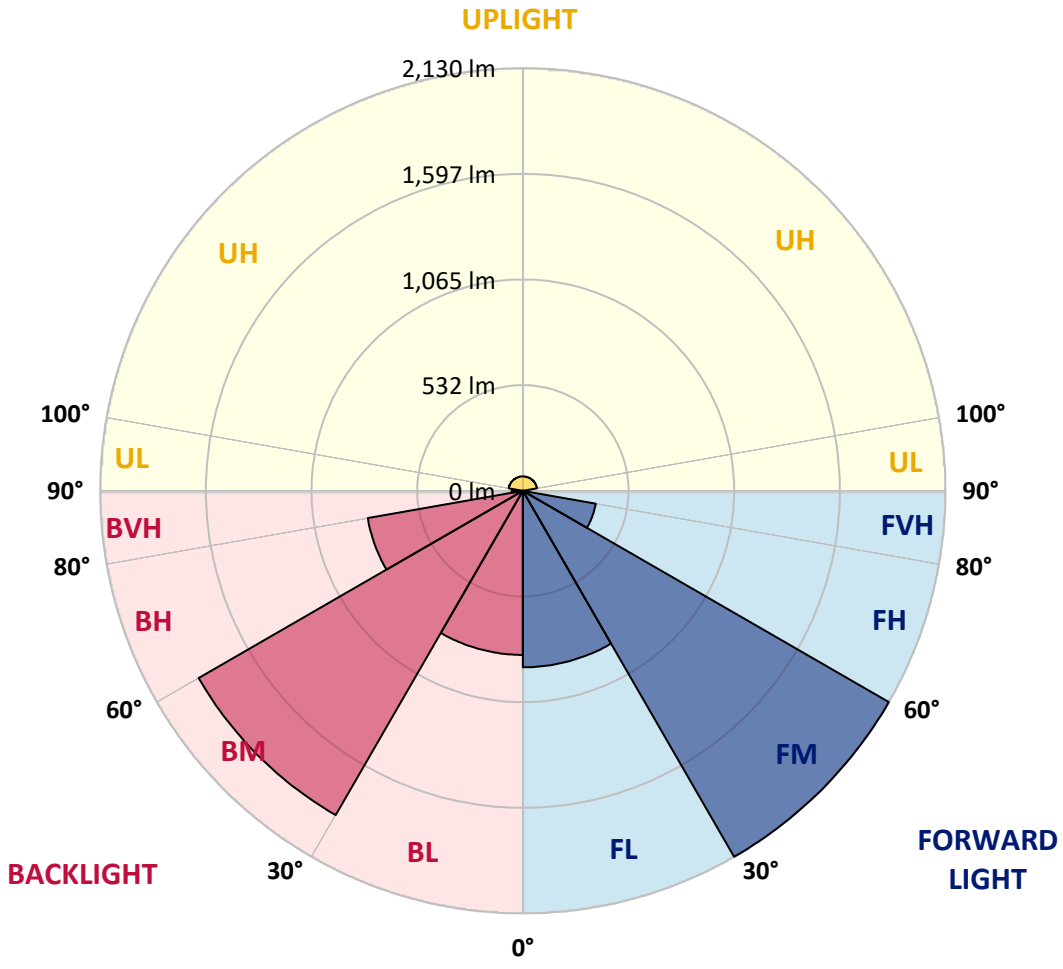
Scaled Data Report

REPORT NUMBER: P1449826
CATALOG NUMBER: TWC100_T2_80W_5000K

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	889.5	12.6			
FM	(30°-60°)	2129.7	30.2			
FH	(60°-80°)	373.1	5.3			G0/660
FVH	(80°-90°)	8.8	0.1			G0/10
BL	(0°-30°)	826.9	11.7	B2/1000		
BM	(30°-60°)	1886.7	26.8	B2/2500		
BH	(60°-80°)	793.7	11.3	B2/1000		G2/1000
BVH	(80°-90°)	56.8	0.8			G1/100
UL	(90°-100°)	3.3	0.0		U1/10	
UH	(100°-180°)	72.6	1.0		U3/500	

BUG Rating: B2-U3-G2
Type II Short



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

Scaled Data Report

REPORT NUMBER: P1449826
CATALOG NUMBER: TWC100_T2_80W_5000K

CANDELA DISTRIBUTION (FULL):

	0°	30°	60°	90°	120°	150°	180°	210°	240°	270°	300°
0°	2049.3	2049.3	2049.3	2049.3	2049.3	2049.3	2049.3	2049.3	2049.3	2049.3	2049.3
1°	2056.7	2055.9	2054.3	2048.6	2046.8	2043.7	2046.4	2044.7	2043.4	2047.5	2051.7
2°	2064.4	2062.9	2057.2	2050.8	2044.0	2038.2	2047.1	2041.8	2040.1	2045.3	2055.2
3°	2074.9	2071.1	2061.6	2049.9	2039.8	2037.3	2055.5	2046.1	2037.1	2044.4	2058.4
4°	2083.2	2078.7	2065.4	2047.7	2036.8	2041.2	2076.0	2056.8	2036.9	2041.4	2060.0
5°	2090.1	2084.6	2066.7	2045.0	2035.4	2052.3	2103.2	2081.6	2037.1	2036.8	2063.9
6°	2100.8	2089.8	2067.6	2037.3	2034.5	2077.3	2116.2	2102.6	2039.4	2031.7	2064.3
7°	2108.8	2096.0	2068.4	2033.4	2036.5	2098.4	2108.9	2110.9	2044.4	2026.3	2063.7
8°	2117.4	2101.9	2068.6	2028.8	2041.2	2106.8	2088.8	2103.7	2055.2	2020.5	2062.8
9°	2125.9	2110.5	2067.8	2024.5	2049.1	2096.4	2073.7	2080.1	2067.2	2014.0	2058.1
10°	2135.4	2116.5	2066.5	2018.2	2064.0	2076.7	2058.3	2063.9	2074.8	2003.4	2056.4
11°	2145.6	2122.9	2065.5	2010.6	2071.6	2060.1	2045.7	2048.1	2074.1	1994.8	2053.7
12°	2158.1	2130.6	2063.9	2001.5	2073.0	2044.7	2033.6	2034.8	2067.4	1986.4	2051.1
13°	2169.4	2136.6	2061.6	1992.6	2066.8	2030.9	2025.4	2019.9	2050.7	1977.1	2046.7
14°	2182.2	2144.6	2059.4	1983.9	2052.5	2016.6	2019.6	2006.6	2030.8	1969.2	2043.5
15°	2195.5	2153.3	2054.5	1971.4	2031.0	2003.5	2020.3	1999.0	2011.8	1958.6	2039.8
16°	2213.7	2162.9	2051.5	1961.4	2012.0	1994.7	2021.7	1994.7	1992.6	1947.1	2038.9
17°	2228.0	2176.4	2049.6	1950.4	1992.9	1990.2	2026.1	1991.6	1973.7	1935.7	2035.9
18°	2244.7	2186.5	2050.0	1938.8	1973.6	1986.8	2029.2	1989.3	1951.9	1920.9	2032.6
19°	2260.1	2197.6	2047.2	1928.7	1955.3	1984.6	2032.1	1987.5	1932.9	1908.8	2028.9
20°	2276.7	2210.2	2045.1	1916.4	1935.4	1978.7	2035.1	1983.7	1913.6	1897.2	2021.3
21°	2293.5	2222.1	2039.3	1905.4	1913.5	1975.8	2036.6	1982.1	1895.4	1886.3	2016.5
22°	2310.1	2235.0	2036.2	1893.2	1894.1	1974.3	2040.2	1980.4	1879.1	1875.5	2011.8
23°	2332.1	2247.8	2033.1	1878.2	1878.5	1974.4	2044.2	1979.2	1865.2	1865.9	2009.6
24°	2350.7	2260.4	2029.1	1867.1	1862.4	1973.6	2049.3	1979.6	1851.2	1856.8	2004.8
25°	2368.6	2274.0	2027.4	1857.4	1848.5	1971.9	2052.7	1979.0	1837.5	1850.1	1998.6
26°	2386.3	2287.3	2022.0	1850.3	1833.6	1970.7	2056.9	1978.0	1822.5	1843.7	1991.6
27°	2403.9	2305.0	2017.0	1842.9	1818.5	1967.7	2063.6	1975.6	1806.4	1835.0	1982.6
28°	2420.1	2318.4	2010.6	1835.7	1800.2	1965.4	2070.9	1973.4	1789.9	1818.1	1974.3
29°	2437.6	2332.0	2003.8	1825.8	1783.9	1963.2	2076.0	1971.0	1773.5	1802.6	1966.4
30°	2454.0	2344.0	1997.0	1811.3	1766.7	1960.6	2082.3	1970.8	1753.1	1782.5	1957.9
31°	2469.1	2354.6	1991.1	1793.6	1749.3	1958.5	2086.1	1967.7	1736.3	1754.5	1947.0
32°	2482.3	2367.4	1983.1	1772.8	1728.7	1956.0	2088.7	1967.1	1719.6	1721.4	1938.2
33°	2493.6	2379.8	1976.4	1744.8	1710.5	1954.6	2089.7	1966.0	1704.2	1686.6	1929.0
34°	2502.7	2392.4	1968.4	1705.0	1692.7	1953.0	2089.2	1964.9	1687.7	1654.8	1921.6
35°	2512.1	2405.1	1959.2	1670.1	1675.0	1953.2	2089.7	1962.8	1671.1	1622.5	1911.4
36°	2515.7	2414.0	1951.0	1634.6	1657.5	1949.4	2101.4	1957.1	1653.7	1582.0	1900.2
37°	2515.3	2421.1	1942.5	1598.4	1640.2	1943.8	2115.2	1951.9	1632.9	1546.9	1889.4
38°	2510.9	2426.0	1933.3	1562.0	1622.0	1937.2	2126.9	1951.0	1614.8	1511.1	1874.2
39°	2498.3	2428.7	1924.6	1525.4	1603.5	1933.2	2115.2	1955.1	1594.9	1474.5	1865.2
40°	2485.0	2427.6	1917.8	1489.0	1580.0	1939.4	2098.8	1963.6	1573.2	1436.4	1856.1
41°	2467.2	2423.0	1910.6	1453.4	1560.1	1947.8	2103.7	1956.6	1551.4	1403.0	1848.6
42°	2444.8	2414.6	1906.0	1413.3	1538.8	1941.7	2116.0	1931.6	1530.8	1370.9	1844.0
43°	2414.9	2398.4	1902.5	1379.2	1516.9	1916.6	2117.6	1926.5	1508.0	1337.2	1838.1
44°	2379.7	2379.9	1899.8	1346.6	1492.0	1910.9	2109.3	1931.7	1483.0	1304.5	1833.3

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

Scaled Data Report

REPORT NUMBER: P1449826
CATALOG NUMBER: TWC100_T2_80W_5000K

CANDELA DISTRIBUTION (continued):

	0°	30°	60°	90°	120°	150°	180°	210°	240°	270°	300°
45°	2337.3	2356.5	1899.4	1313.6	1467.3	1916.7	2096.9	1930.2	1457.2	1271.4	1830.6
46°	2282.1	2326.6	1899.8	1278.6	1438.8	1915.6	2084.7	1919.2	1436.5	1236.1	1829.3
47°	2225.2	2291.0	1900.1	1243.2	1415.2	1905.5	2075.7	1907.8	1424.5	1195.7	1827.9
48°	2160.1	2246.9	1902.0	1206.9	1402.6	1893.9	2063.4	1896.5	1410.2	1160.1	1826.6
49°	2087.3	2195.5	1903.6	1170.2	1389.5	1882.3	2049.9	1885.1	1366.0	1124.2	1827.6
50°	1998.0	2137.0	1905.5	1130.2	1352.8	1871.0	2033.8	1869.1	1334.6	1087.7	1825.5
51°	1911.6	2059.6	1908.3	1094.0	1313.3	1855.4	2012.3	1851.6	1316.9	1050.9	1826.2
52°	1816.9	1983.0	1909.4	1056.5	1295.8	1839.2	1996.5	1834.2	1293.2	1012.5	1827.5
53°	1710.2	1897.8	1910.7	1015.0	1273.9	1821.3	1980.1	1815.6	1268.5	975.5	1828.6
54°	1582.6	1797.0	1910.2	977.5	1248.2	1802.4	1962.9	1797.2	1241.7	937.9	1830.9
55°	1459.3	1695.5	1909.3	939.6	1219.9	1784.5	1944.4	1780.7	1214.2	899.2	1830.2
56°	1332.5	1580.4	1906.6	901.8	1191.6	1768.3	1920.7	1764.6	1186.5	854.6	1827.7
57°	1179.5	1440.8	1899.3	860.3	1161.1	1750.2	1890.6	1748.7	1152.0	814.8	1822.6
58°	1023.0	1304.6	1888.6	820.4	1125.0	1734.1	1844.8	1726.3	1119.1	775.5	1811.5
59°	847.1	1165.5	1868.4	780.7	1090.6	1716.1	1781.5	1704.2	1086.8	731.8	1797.1
60°	638.0	1019.6	1842.7	736.0	1057.5	1694.5	1725.3	1678.0	1056.2	692.2	1775.5
61°	450.4	842.6	1805.7	697.5	1021.7	1667.0	1613.2	1638.4	1025.1	652.4	1745.3
62°	300.3	665.3	1755.8	658.8	991.6	1630.2	1448.1	1580.7	997.9	612.3	1697.2
63°	197.9	475.6	1676.3	619.0	960.9	1581.7	1336.5	1528.9	970.2	573.0	1633.6
64°	136.8	304.5	1578.8	575.8	931.0	1526.9	1272.5	1417.0	943.3	541.4	1545.1
65°	118.2	174.2	1453.9	541.8	900.7	1400.1	1208.6	1295.0	915.4	501.2	1424.7
66°	110.1	109.9	1299.3	505.8	872.5	1284.8	1139.5	1228.2	888.6	463.1	1254.6
67°	103.8	86.4	1098.7	457.9	843.9	1227.8	1054.0	1182.9	859.6	426.7	1067.3
68°	97.4	77.7	889.1	416.5	813.7	1179.3	974.5	1138.4	825.3	386.5	861.9
69°	91.4	71.4	664.9	377.8	778.8	1135.5	892.7	1079.9	790.9	348.7	614.7
70°	86.4	64.9	447.1	342.1	745.4	1083.8	798.7	1024.4	754.8	312.4	407.4
71°	83.0	59.9	281.1	303.8	709.1	1030.1	711.4	970.0	714.7	274.9	249.5
72°	78.4	56.3	157.7	270.3	666.0	973.4	620.2	913.8	654.6	242.3	144.2
73°	73.9	52.9	91.2	238.9	608.0	918.0	518.8	849.3	599.9	211.9	85.2
74°	67.7	48.6	70.0	210.3	552.8	860.0	434.8	786.0	566.8	181.8	69.7
75°	63.1	43.6	60.0	181.1	520.3	799.8	360.6	711.8	532.3	157.6	60.3
76°	58.1	38.4	53.6	157.0	487.4	722.3	297.1	626.4	497.8	135.5	54.4
77°	54.5	34.7	49.8	136.7	453.6	640.3	239.3	537.0	466.1	116.0	50.7
78°	51.0	31.4	47.4	118.3	423.7	557.0	193.2	462.5	436.5	96.8	49.3
79°	47.9	28.9	43.9	100.9	395.5	479.5	144.9	397.4	405.2	81.0	46.1
80°	44.7	26.4	37.2	85.9	363.9	406.3	80.5	337.5	375.7	66.1	38.2
81°	40.8	24.3	29.4	69.4	334.3	345.5	32.4	275.0	346.5	52.1	30.3
82°	36.5	22.0	23.3	51.5	305.0	286.2	23.1	210.7	317.8	38.6	23.3
83°	25.9	18.2	18.1	38.6	274.2	203.8	18.7	120.4	281.3	28.7	17.8
84°	18.4	15.0	15.0	28.2	237.9	104.1	13.7	43.5	243.8	20.9	14.6
85°	14.5	11.7	12.4	20.1	203.2	31.3	10.0	14.2	203.4	14.7	12.0
86°	10.8	8.9	10.2	13.1	164.6	11.5	5.9	8.8	166.8	9.9	9.9
87°	6.4	6.4	7.7	8.3	126.3	6.4	3.4	5.1	116.9	6.5	7.5
88°	3.1	3.6	4.6	4.3	66.6	3.0	1.9	2.4	49.1	4.1	4.7
89°	1.5	2.1	2.1	1.6	10.0	1.1	0.9	1.1	3.1	2.7	3.5

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

Scaled Data Report

REPORT NUMBER: P1449826
CATALOG NUMBER: TWC100_T2_80W_5000K

CANDELA DISTRIBUTION (continued):

	0°	30°	60°	90°	120°	150°	180°	210°	240°	270°	300°
90°	1.3	1.9	1.7	1.2	0.9	0.0	0.9	1.1	2.8	2.6	3.7
91°	1.5	2.2	1.9	1.1	1.0	0.0	1.1	1.2	3.1	2.8	4.0
92°	1.6	2.4	2.0	1.3	1.2	0.0	1.1	1.3	3.4	3.0	4.2
93°	2.0	2.7	2.3	1.3	1.3	0.0	1.3	1.5	3.7	3.3	4.5
94°	2.2	2.9	2.4	1.5	1.6	0.0	1.5	1.8	4.0	3.6	4.8
95°	2.4	3.2	2.7	1.6	1.9	0.6	1.7	2.1	4.3	3.8	5.1
96°	2.7	3.5	2.9	1.8	2.0	0.6	1.9	2.3	4.7	4.0	5.4
97°	3.0	3.8	3.1	1.9	2.1	0.7	2.0	2.7	5.1	4.4	5.7
98°	3.4	4.2	3.3	2.2	2.4	0.9	2.4	3.1	5.4	4.7	6.1
99°	3.7	4.5	3.5	2.4	2.7	0.9	2.8	3.4	5.8	5.0	6.4
100°	4.1	5.0	3.6	2.6	3.0	1.2	3.0	3.9	6.2	5.4	6.7
101°	4.4	5.3	4.0	2.9	3.1	1.4	3.5	4.3	6.6	5.7	6.9
102°	4.9	5.7	4.3	3.1	3.4	1.5	3.8	4.7	7.1	6.1	7.3
103°	5.4	6.0	4.4	3.3	3.7	1.8	4.3	5.3	7.6	6.4	7.7
104°	5.8	6.4	4.7	3.6	4.1	2.0	4.8	5.8	8.0	6.8	8.0
105°	6.4	6.6	5.0	3.8	4.4	2.3	5.2	6.2	8.4	7.1	8.3
106°	6.8	7.1	5.2	4.2	4.8	2.7	5.7	6.8	9.0	7.5	8.6
107°	7.1	7.5	5.5	4.4	5.1	3.0	6.4	7.3	9.3	7.9	8.9
108°	7.6	7.8	5.8	4.7	5.5	3.4	6.9	8.0	9.9	8.2	9.3
109°	8.1	8.2	6.2	5.1	5.9	3.8	7.4	8.5	10.3	8.6	9.6
110°	8.4	8.6	6.4	5.4	6.2	4.3	8.1	9.2	10.9	9.0	9.9
111°	9.0	9.0	6.7	5.7	6.7	4.7	8.7	9.8	11.2	9.4	10.2
112°	9.4	9.4	7.0	6.0	6.9	5.2	9.3	10.4	11.7	9.8	10.5
113°	9.9	9.8	7.3	6.4	7.4	5.6	10.0	10.9	12.1	10.1	10.9
114°	10.4	10.2	7.6	6.8	7.6	6.1	10.6	11.7	12.4	10.6	11.1
115°	10.8	10.6	7.8	7.1	7.9	6.7	11.3	12.4	12.8	11.0	11.4
116°	11.2	10.8	8.2	7.3	8.2	7.2	12.0	13.0	13.2	11.4	11.8
117°	11.7	11.3	8.5	7.7	8.7	7.8	12.5	13.5	13.5	11.8	12.1
118°	12.1	11.7	8.7	8.1	8.9	8.3	13.3	14.2	14.0	12.1	12.4
119°	12.4	12.0	9.0	8.4	9.3	8.8	14.0	14.7	14.3	12.6	12.8
120°	12.9	12.3	9.4	8.7	9.7	9.4	14.6	15.2	14.6	12.9	12.9
121°	13.3	12.6	9.7	9.2	9.9	9.9	15.3	15.7	14.9	13.2	13.2
122°	13.7	12.9	10.1	9.4	10.3	10.3	15.9	16.3	15.1	13.6	13.5
123°	14.0	13.3	10.3	9.9	10.7	10.9	16.5	16.8	15.5	14.0	13.8
124°	14.3	13.5	10.6	10.1	11.0	11.3	17.0	17.2	15.9	14.3	13.9
125°	14.7	13.9	10.9	10.4	11.3	11.7	17.6	17.7	16.2	14.6	14.3
126°	15.0	14.2	11.1	10.9	11.8	12.2	18.0	18.1	16.6	14.9	14.5
127°	15.4	14.5	11.4	11.2	12.2	12.7	18.4	18.4	16.8	15.2	14.8
128°	15.6	14.8	11.7	11.5	12.5	13.1	18.9	18.9	17.2	15.4	15.1
129°	16.0	15.0	11.8	11.8	12.9	13.3	19.3	19.2	17.6	15.6	15.3
130°	16.4	15.4	12.3	12.1	13.3	13.8	19.8	19.5	17.8	16.0	15.5
131°	16.8	15.6	12.4	12.4	13.9	14.2	20.1	19.8	18.1	16.3	15.7
132°	16.8	15.9	12.7	12.7	14.3	14.6	20.5	20.1	18.5	16.4	16.0
133°	17.1	16.1	13.1	12.9	14.6	15.0	20.8	20.4	18.8	16.7	16.1
134°	17.3	16.3	13.3	13.3	15.2	15.3	21.1	20.6	19.2	16.9	16.4

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

Scaled Data Report

REPORT NUMBER: P1449826
CATALOG NUMBER: TWC100_T2_80W_5000K

CANDELA DISTRIBUTION (continued):

	0°	30°	60°	90°	120°	150°	180°	210°	240°	270°	300°
135°	17.5	16.6	13.6	13.5	15.6	15.7	21.5	20.8	19.4	17.1	16.7
136°	18.0	16.8	13.9	13.8	16.0	16.1	21.6	20.9	19.6	17.3	16.8
137°	18.1	16.8	14.1	14.0	16.5	16.6	21.8	21.2	19.8	17.5	16.8
138°	18.4	17.0	14.4	14.4	16.8	16.8	22.1	21.5	20.0	17.8	17.2
139°	18.5	17.3	14.6	14.6	17.1	17.2	22.0	21.6	20.2	18.0	17.4
140°	18.8	17.4	14.8	14.9	17.5	17.7	22.4	21.8	20.4	18.1	17.6
141°	18.9	17.7	15.0	15.1	17.8	18.1	22.5	21.9	20.5	18.2	17.8
142°	19.2	17.8	15.2	15.4	18.1	18.6	22.7	22.0	20.8	18.6	18.1
143°	19.3	17.9	15.7	15.7	18.4	18.9	22.7	22.2	20.9	18.8	18.1
144°	19.4	18.1	15.7	15.9	18.7	19.4	23.0	22.3	21.0	19.1	18.4
145°	19.4	18.3	16.0	16.0	19.0	19.7	22.9	22.4	21.1	19.2	18.5
146°	19.6	18.2	16.2	16.3	19.1	20.1	23.0	22.5	21.3	19.4	18.7
147°	19.6	18.5	16.4	16.6	19.4	20.4	23.1	22.5	21.3	19.6	18.9
148°	19.7	18.6	16.7	16.7	19.5	20.7	23.1	22.7	21.5	19.6	19.1
149°	19.9	18.7	16.9	16.9	19.6	20.9	23.1	22.7	21.5	19.9	19.4
150°	19.8	18.8	17.1	17.3	19.8	21.2	23.0	22.7	21.7	20.1	19.4
151°	20.1	19.0	17.3	17.3	20.0	21.5	23.1	22.7	21.6	20.2	19.6
152°	20.1	18.9	17.4	17.7	20.1	21.7	23.1	22.7	21.7	20.4	19.7
153°	20.2	19.1	17.7	17.7	20.2	21.9	23.0	22.7	21.9	20.6	19.9
154°	20.2	19.1	17.8	18.1	20.3	21.9	22.9	22.7	21.9	20.6	20.0
155°	20.2	19.4	18.1	18.1	20.5	22.0	22.9	22.7	21.9	20.6	20.2
156°	20.3	19.4	18.2	18.5	20.6	22.2	22.9	22.6	21.8	20.8	20.3
157°	20.3	19.5	18.4	18.7	20.7	22.0	22.7	22.7	21.9	20.9	20.3
158°	20.5	19.4	18.7	18.8	20.9	22.3	22.6	22.4	21.9	21.2	20.5
159°	20.4	19.6	18.8	19.1	20.9	22.3	22.5	22.6	22.0	21.2	20.6
160°	20.5	19.7	19.1	19.5	21.0	22.3	22.4	22.4	22.0	21.2	20.8
161°	20.5	19.9	19.2	19.4	21.0	22.3	22.4	22.5	21.9	21.4	20.8
162°	20.5	19.9	19.4	19.6	21.2	22.4	22.4	22.4	21.9	21.4	20.9
163°	20.6	20.0	19.5	19.8	21.3	22.4	22.3	22.3	21.9	21.6	21.0
164°	20.7	20.1	19.8	20.1	21.4	22.4	22.2	22.3	22.0	21.6	21.0
165°	20.8	20.2	19.8	20.2	21.5	22.4	22.0	22.3	22.0	21.6	21.1
166°	20.8	20.3	19.9	20.3	21.5	22.4	22.0	22.2	22.0	21.6	21.2
167°	20.8	20.4	20.1	20.5	21.6	22.4	22.2	22.3	22.0	21.9	21.3
168°	20.9	20.4	20.3	20.6	21.6	22.4	22.1	22.3	22.0	21.9	21.4
169°	20.9	20.6	20.4	20.8	21.7	22.4	21.9	22.2	22.0	22.0	21.5
170°	21.0	20.7	20.6	21.0	21.9	22.4	21.9	22.0	22.1	21.9	21.5
171°	21.1	20.8	20.6	21.2	22.0	22.5	22.1	22.2	21.9	22.1	21.6
172°	21.2	20.8	21.0	21.3	21.9	22.4	22.0	22.0	22.0	22.1	21.8
173°	21.3	20.9	20.9	21.5	21.9	22.4	22.1	21.9	22.0	22.2	21.7
174°	21.5	21.0	21.2	21.6	21.9	22.3	22.1	22.0	21.9	22.3	21.9
175°	21.6	21.2	21.3	21.7	22.0	22.3	22.1	22.0	22.0	22.2	21.9
176°	21.8	21.3	21.5	21.7	22.0	22.3	22.2	22.1	22.0	22.3	21.9
177°	21.9	21.5	21.5	22.0	22.0	22.4	22.2	21.8	21.8	22.3	22.0
178°	21.9	21.6	21.6	21.9	22.0	22.3	22.0	21.9	21.9	22.3	22.0
179°	21.9	21.7	21.9	22.1	22.1	22.3	22.1	21.9	21.9	22.2	22.2

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

Scaled Data Report

REPORT NUMBER: P1449826
CATALOG NUMBER: TWC100_T2_80W_5000K

CANDELA DISTRIBUTION (continued):

	0°	30°	60°	90°	120°	150°	180°	210°	240°	270°	300°
180°	*22.0*	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0

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

Scaled Data Report

REPORT NUMBER: P1449826
CATALOG NUMBER: TWC100_T2_80W_5000K

CANDELA DISTRIBUTION (continued):

	330°	360°
0°	2049.3	2049.3
1°	2056.6	2056.7
2°	2066.6	2064.4
3°	2072.7	2074.9
4°	2078.7	2083.2
5°	2082.6	2090.1
6°	2087.9	2100.8
7°	2093.4	2108.8
8°	2098.7	2117.4
9°	2106.0	2125.9
10°	2112.2	2135.4
11°	2118.8	2145.6
12°	2126.4	2158.1
13°	2132.6	2169.4
14°	2140.8	2182.2
15°	2149.0	2195.5
16°	2160.5	2213.7
17°	2170.5	2228.0
18°	2180.9	2244.7
19°	2191.1	2260.1
20°	2203.3	2276.7
21°	2214.7	2293.5
22°	2226.7	2310.1
23°	2239.5	2332.1
24°	2251.1	2350.7
25°	2264.5	2368.6
26°	2276.8	2386.3
27°	2291.3	2403.9
28°	2304.1	2420.1
29°	2316.7	2437.6
30°	2327.8	2454.0
31°	2338.3	2469.1
32°	2350.1	2482.3
33°	2361.5	2493.6
34°	2371.3	2502.7
35°	2382.2	2512.1
36°	*2389.2*	*2515.7*
37°	2393.9	2515.3
38°	2396.9	2510.9
39°	2396.2	2498.3
40°	2392.3	2485.0
41°	2386.8	2467.2
42°	2376.0	2444.8
43°	2358.0	2414.9
44°	2338.0	2379.7

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

Scaled Data Report

REPORT NUMBER: P1449826
CATALOG NUMBER: TWC100_T2_80W_5000K

CANDELA DISTRIBUTION (continued):

	330°	360°
45°	2312.9	2337.3
46°	2281.0	2282.1
47°	2244.3	2225.2
48°	2199.2	2160.1
49°	2146.8	2087.3
50°	2077.4	1998.0
51°	2006.7	1911.6
52°	1927.2	1816.9
53°	1839.6	1710.2
54°	1735.4	1582.6
55°	1628.7	1459.3
56°	1507.8	1332.5
57°	1378.2	1179.5
58°	1228.1	1023.0
59°	1086.6	847.1
60°	933.2	638.0
61°	765.6	450.4
62°	567.2	300.3
63°	384.9	197.9
64°	236.7	136.8
65°	141.2	118.2
66°	93.1	110.1
67°	80.3	103.8
68°	73.0	97.4
69°	65.8	91.4
70°	59.8	86.4
71°	55.8	83.0
72°	52.6	78.4
73°	48.6	73.9
74°	44.1	67.7
75°	39.3	63.1
76°	35.3	58.1
77°	31.8	54.5
78°	28.9	51.0
79°	26.9	47.9
80°	25.0	44.7
81°	23.0	40.8
82°	20.5	36.5
83°	17.1	25.9
84°	14.3	18.4
85°	11.0	14.5
86°	9.0	10.8
87°	6.9	6.4
88°	4.8	3.1
89°	4.4	1.5

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

Scaled Data Report

REPORT NUMBER: P1449826
CATALOG NUMBER: TWC100_T2_80W_5000K

CANDELA DISTRIBUTION (continued):

	330°	360°
90°	4.8	1.3
91°	5.1	1.5
92°	5.6	1.6
93°	5.9	2.0
94°	6.4	2.2
95°	6.8	2.4
96°	7.2	2.7
97°	7.8	3.0
98°	8.2	3.4
99°	8.6	3.7
100°	9.2	4.1
101°	9.5	4.4
102°	9.9	4.9
103°	10.3	5.4
104°	10.8	5.8
105°	11.2	6.4
106°	11.6	6.8
107°	12.1	7.1
108°	12.5	7.6
109°	12.8	8.1
110°	13.2	8.4
111°	13.6	9.0
112°	14.0	9.4
113°	14.5	9.9
114°	14.7	10.4
115°	15.0	10.8
116°	15.4	11.2
117°	15.7	11.7
118°	16.0	12.1
119°	16.2	12.4
120°	16.5	12.9
121°	16.8	13.3
122°	16.8	13.7
123°	17.0	14.0
124°	17.3	14.3
125°	17.5	14.7
126°	17.6	15.0
127°	17.8	15.4
128°	18.0	15.6
129°	18.0	16.0
130°	18.3	16.4
131°	18.4	16.8
132°	18.4	16.8
133°	18.5	17.1
134°	18.8	17.3

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

Scaled Data Report

REPORT NUMBER: P1449826
CATALOG NUMBER: TWC100_T2_80W_5000K

CANDELA DISTRIBUTION (continued):

	330°	360°
135°	18.8	17.5
136°	18.9	18.0
137°	19.1	18.1
138°	19.2	18.4
139°	19.4	18.5
140°	19.2	18.8
141°	19.3	18.9
142°	19.4	19.2
143°	19.6	19.3
144°	19.6	19.4
145°	19.6	19.4
146°	19.7	19.6
147°	19.9	19.6
148°	19.8	19.7
149°	19.9	19.9
150°	19.9	19.8
151°	20.1	20.1
152°	20.2	20.1
153°	20.3	20.2
154°	20.2	20.2
155°	20.2	20.2
156°	20.3	20.3
157°	20.5	20.3
158°	20.5	20.5
159°	20.5	20.4
160°	20.5	20.5
161°	20.6	20.5
162°	20.6	20.5
163°	20.6	20.6
164°	20.8	20.7
165°	20.9	20.8
166°	20.9	20.8
167°	21.0	20.8
168°	21.1	20.9
169°	21.2	20.9
170°	21.2	21.0
171°	21.4	21.1
172°	21.3	21.2
173°	21.6	21.3
174°	21.7	21.5
175°	21.7	21.6
176°	21.8	21.8
177°	21.8	21.9
178°	22.0	21.9
179°	22.1	21.9

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

Scaled Data Report

REPORT NUMBER: P1449826
CATALOG NUMBER: TWC100_T2_80W_5000K

CANDELA DISTRIBUTION (continued):

	330°	360°
180°	22.0	22.0

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

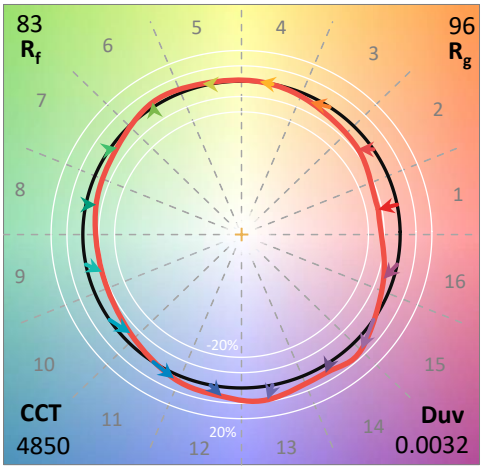
Test Information

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

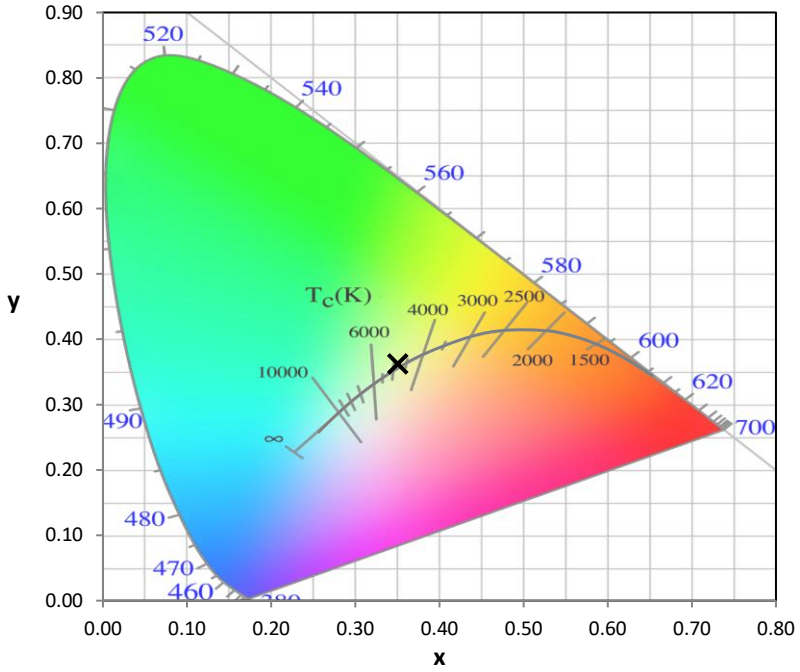
Stabilization Time:	25M
Operation Time:	1H 25M
Sphere Temperature (°C):	24.8

REPORT NUMBER: SP1-2601-659-3

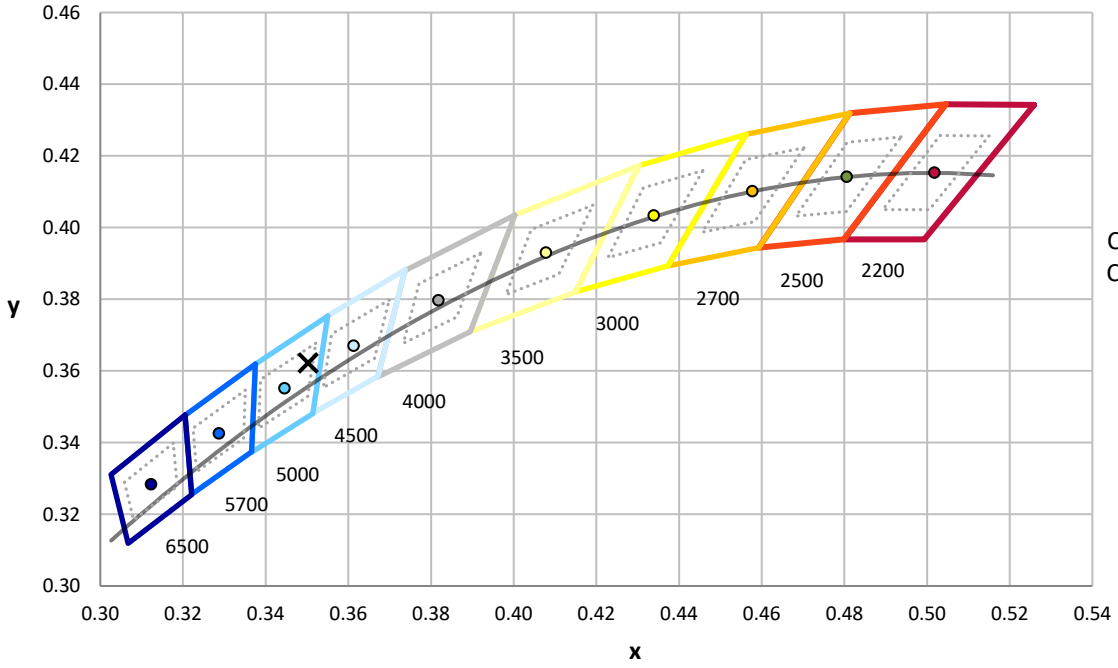
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	76INCH SPHERE IN0058	12/16/2025	6/16/2026
Power Meter	XITRON INXT2011004	10/21/2025	10/21/2026
AC Power Source	CHROMA 61603 IN0063	10/21/2025	10/21/2026
DC Power Source	AGILENT E3634A IN0208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

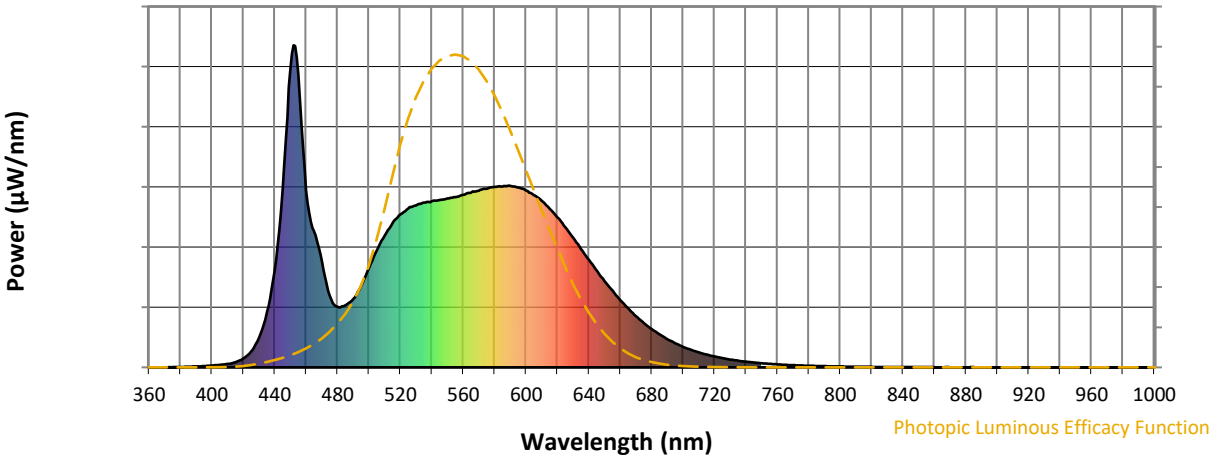


CCT = 4850K
CIE x = 0.3503
CIE y = 0.3623
Duv = 0.0032

Point lies inside the ANSI 5000K 4-step quadrangle

REPORT NUMBER: SP1-2601-659-3

Photopic Flux vs. Wavelength

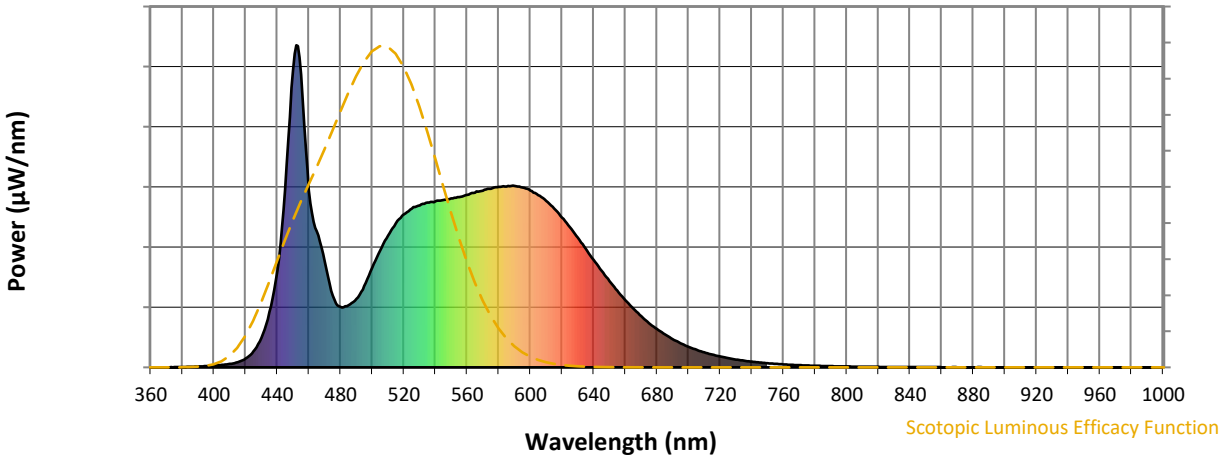


Photopic Lumens: NR

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

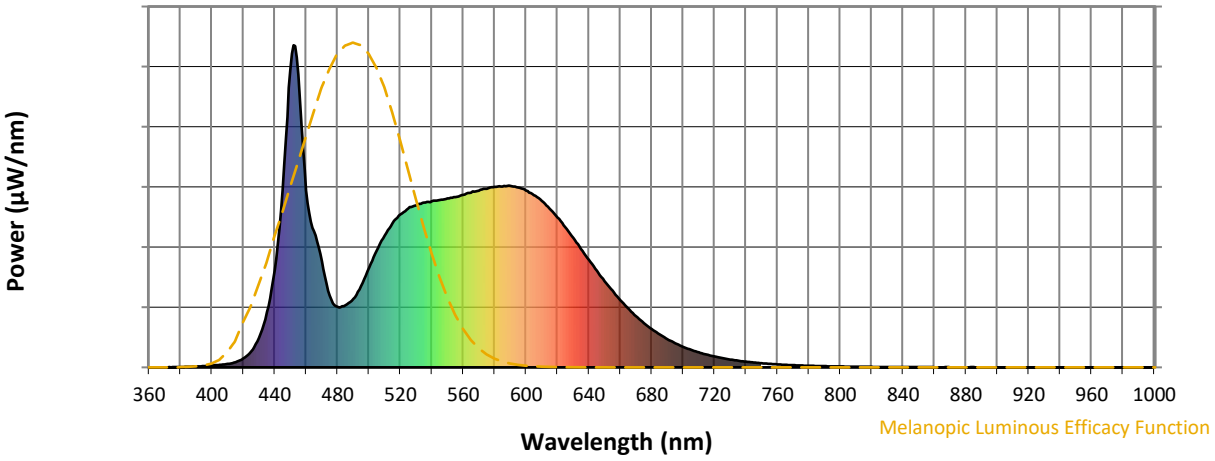


Scotopic Lumens: NR **S/P: 1.9**

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			

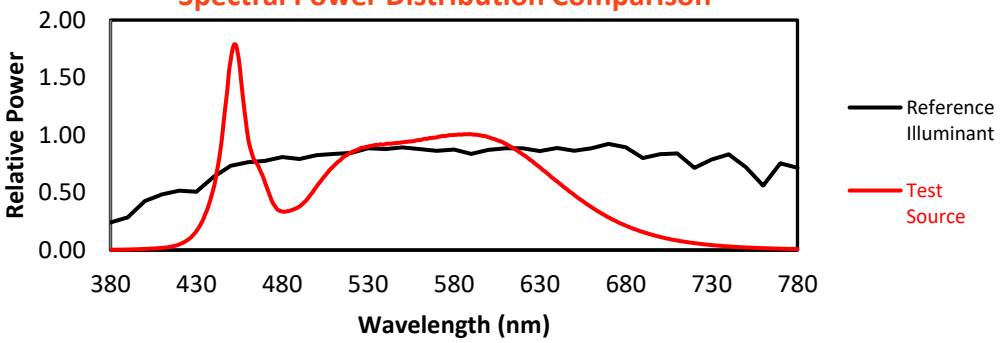
REPORT NUMBER: SP1-2601-659-3

TM-30-18

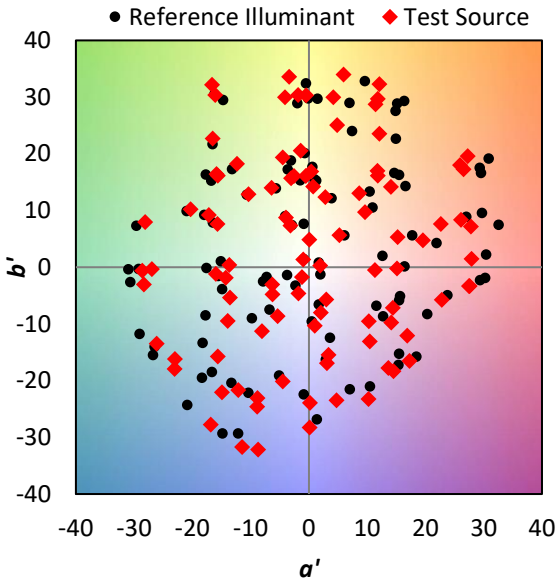
Summary

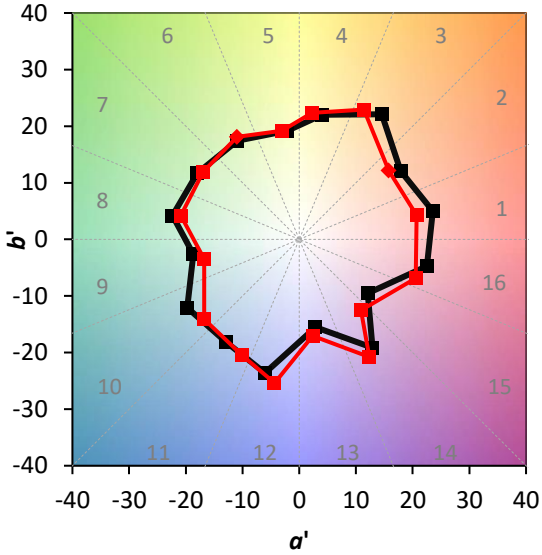
R_f = 83.1
R_g = 95.8
CIE R_a = 82.6
R_9 = 8.5

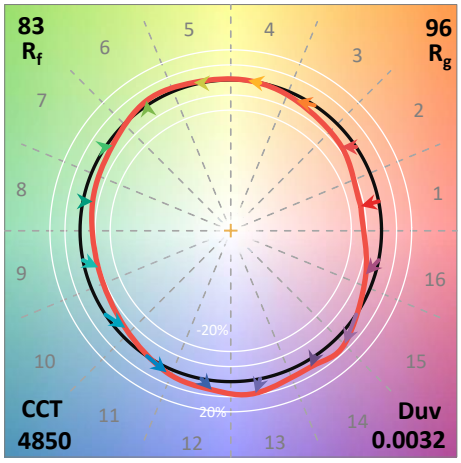
Spectral Power Distribution Comparison

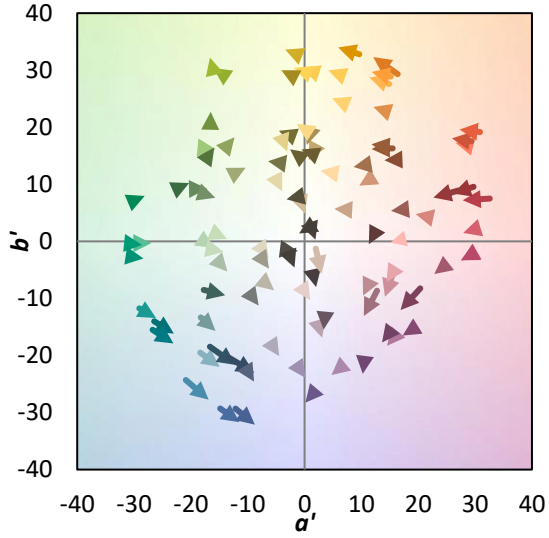


Color Vector Graphics







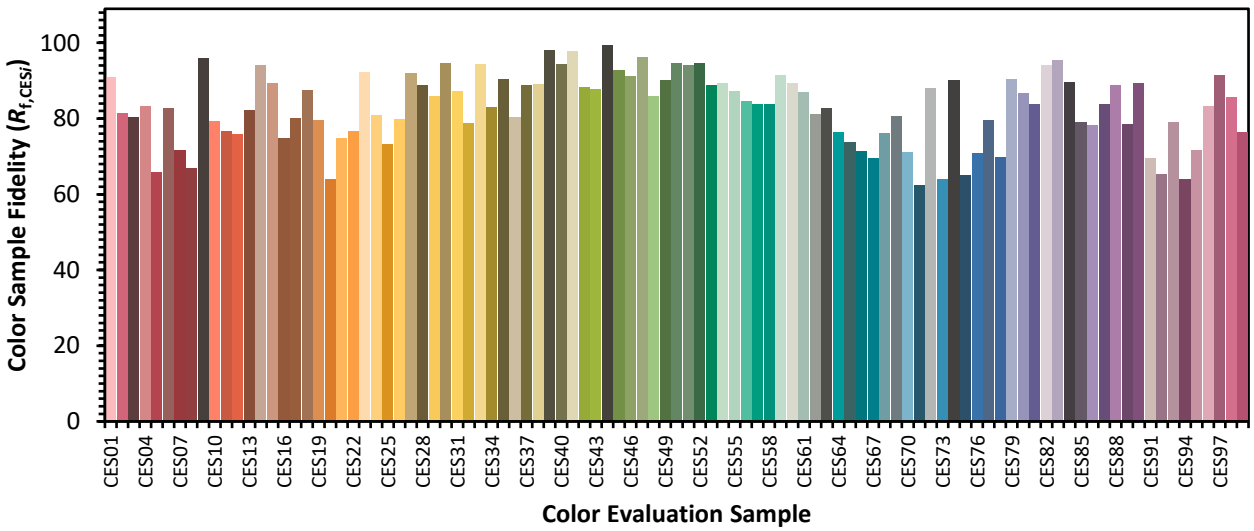


REPORT NUMBER: SP1-2601-659-3

TM-30-18

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

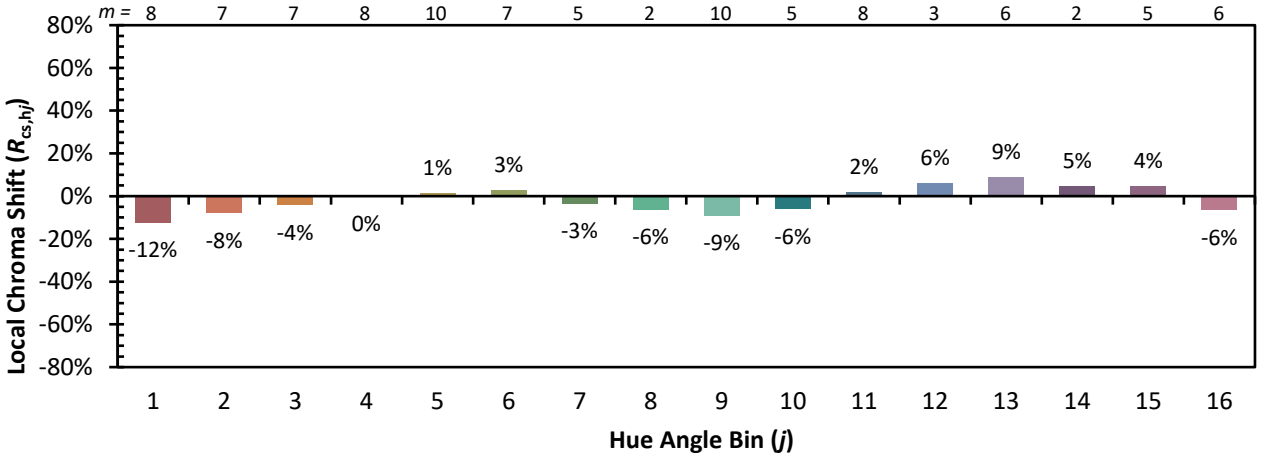
CES01 = 85	CES26 = 80	CES51 = 94	CES76 = 71
CES02 = 60	CES27 = 92	CES52 = 95	CES77 = 80
CES03 = 30	CES28 = 89	CES53 = 89	CES78 = 70
CES04 = 69	CES29 = 86	CES54 = 89	CES79 = 90
CES05 = 47	CES30 = 95	CES55 = 87	CES80 = 87
CES06 = 50	CES31 = 87	CES56 = 85	CES81 = 84
CES07 = 40	CES32 = 79	CES57 = 84	CES82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

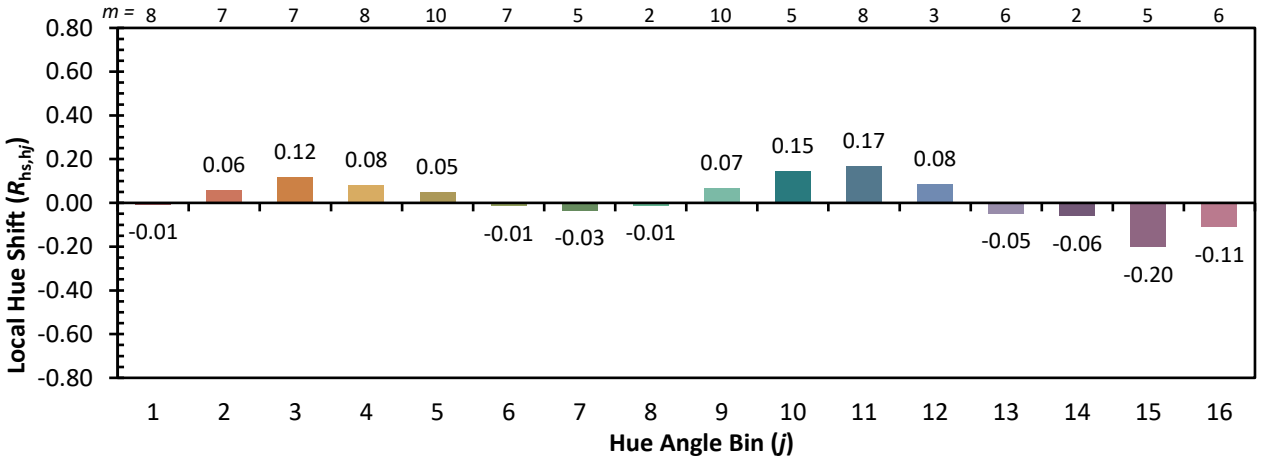


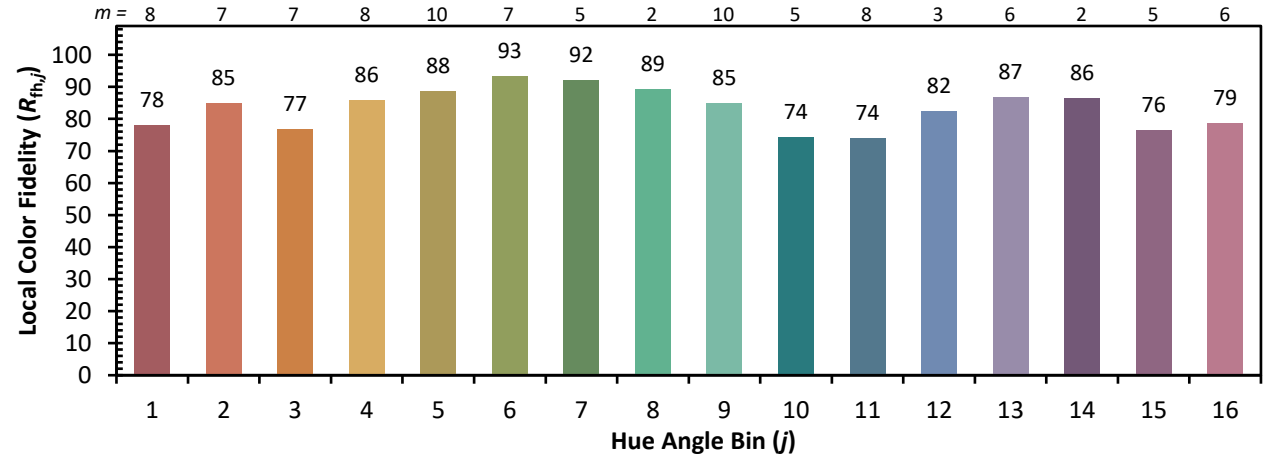
REPORT NUMBER: SP1-2601-659-3

TM-30-18

Color Rendition by Hue-Angle Bin



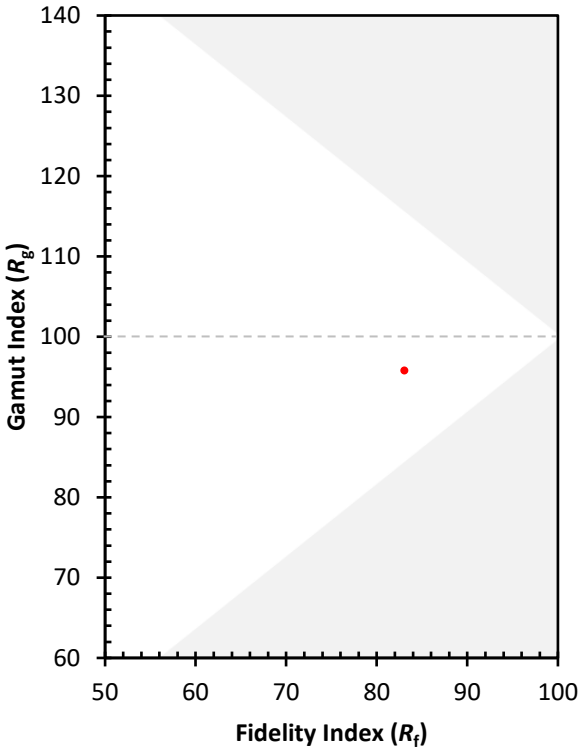


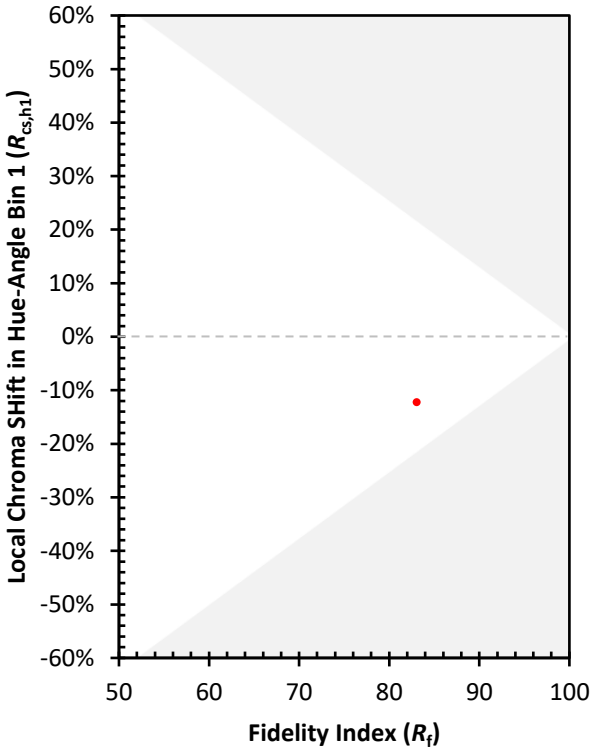


REPORT NUMBER: SP1-2601-659-3

TM-30-18

Measure Comparisons





(END OF REPORT)