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: McGRAW-EDISON

Report Number: P821203

Luminaire Tested: **TT-D5-735-24VDC-5CQ-PM-HSS**

Issue Date: 12/2/2020

Report Generated By 670245763

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Scaled Data Report

Test Information

Test Method:	LM-79-08
Report Number:	P821203
	TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2010-017-3)
Test Lab:	INNOVATION CENTER
Issue Date:	12/2/2020
Manufacturer:	COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line:	McGRAW-EDISON
Catalog Number:	TT-D5-735-24VDC-5CQ-PM-HSS
Description:	TOPTIER LED SITE LUMINAIRE
	3500K, 70 CRI LEDS AND CONCENTRATED DISTRIBUTION WITH HOUSE SIDE SHIELD
Light Source:	-
Ballast/Driver:	ELECTRONIC DRIVER

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	7530.9 lumens
Efficiency:	N/A
Efficacy:	103.2 lumens/watt
Luminous Opening:	Circular (Dia: 1.12' x H: 0')
IES Classification:	Type IV - Short
BUG Rating:	B2 - U2 - G1

Input Watts (W):	73
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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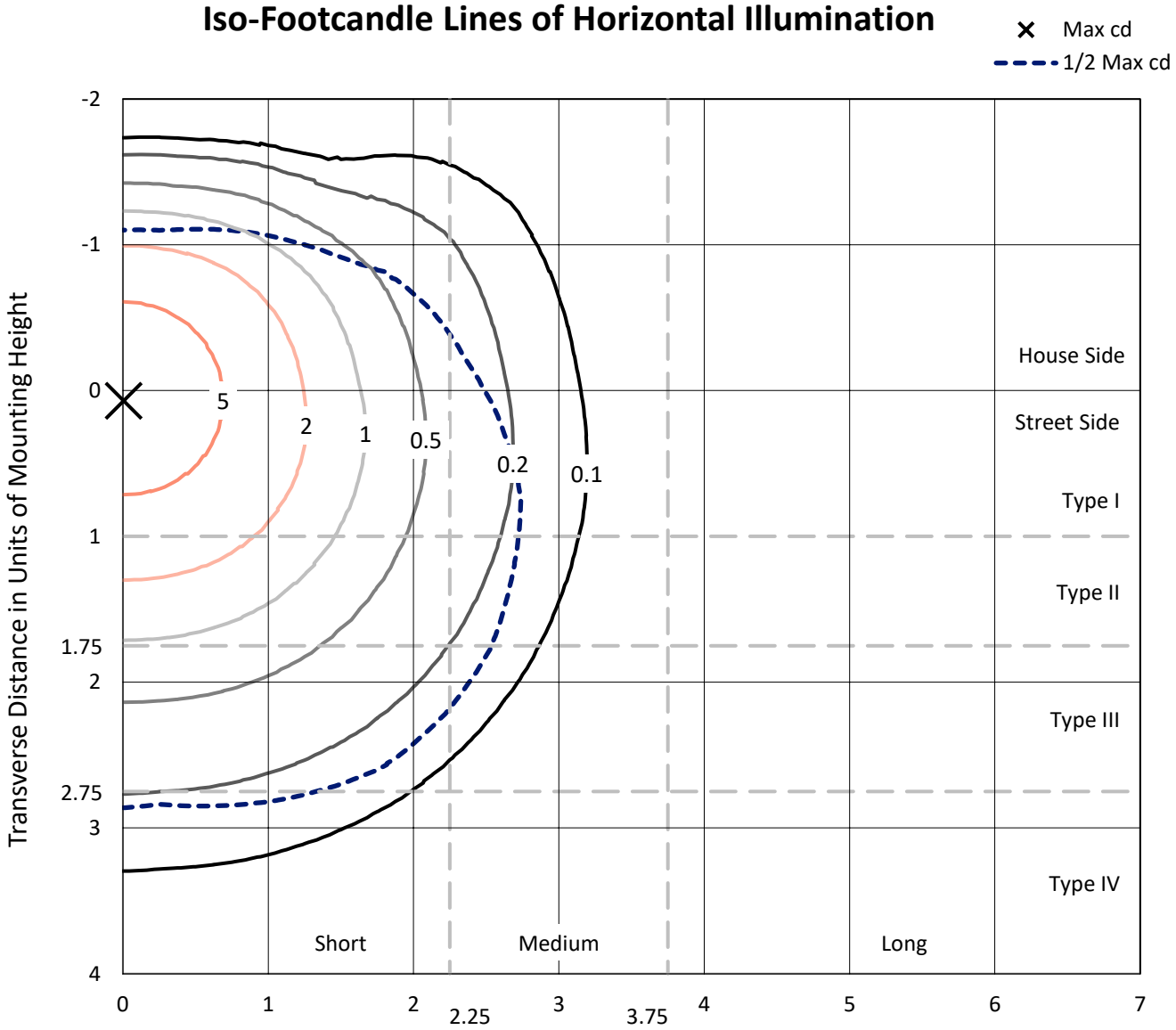
Iso-Footcandle Lines of Horizontal Illumination



Based on 15 foot mounting height. Maximum calculated value = 9.7 fc
Type IV - Short - N/A

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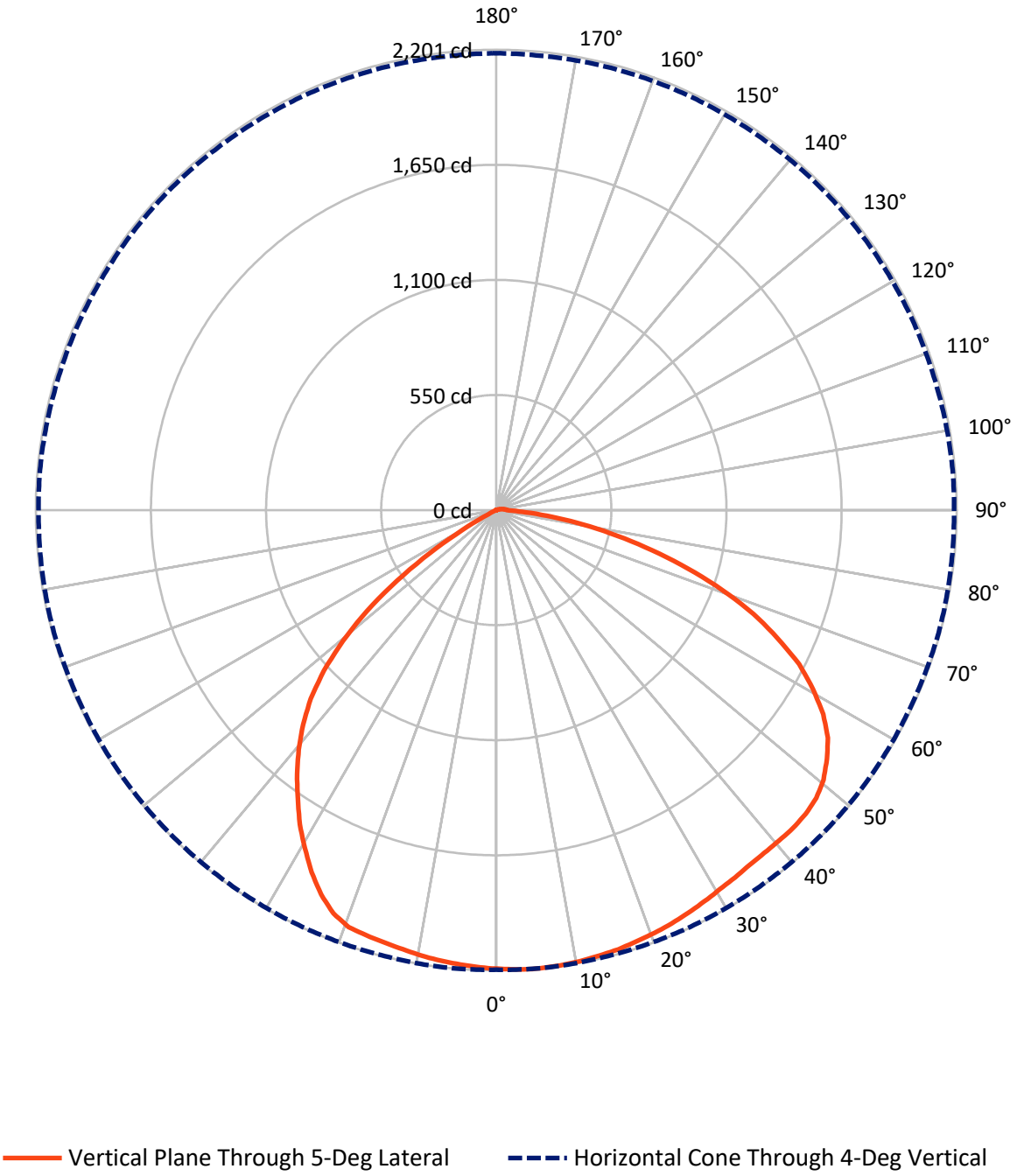
Luminous Intensity Polar Plot



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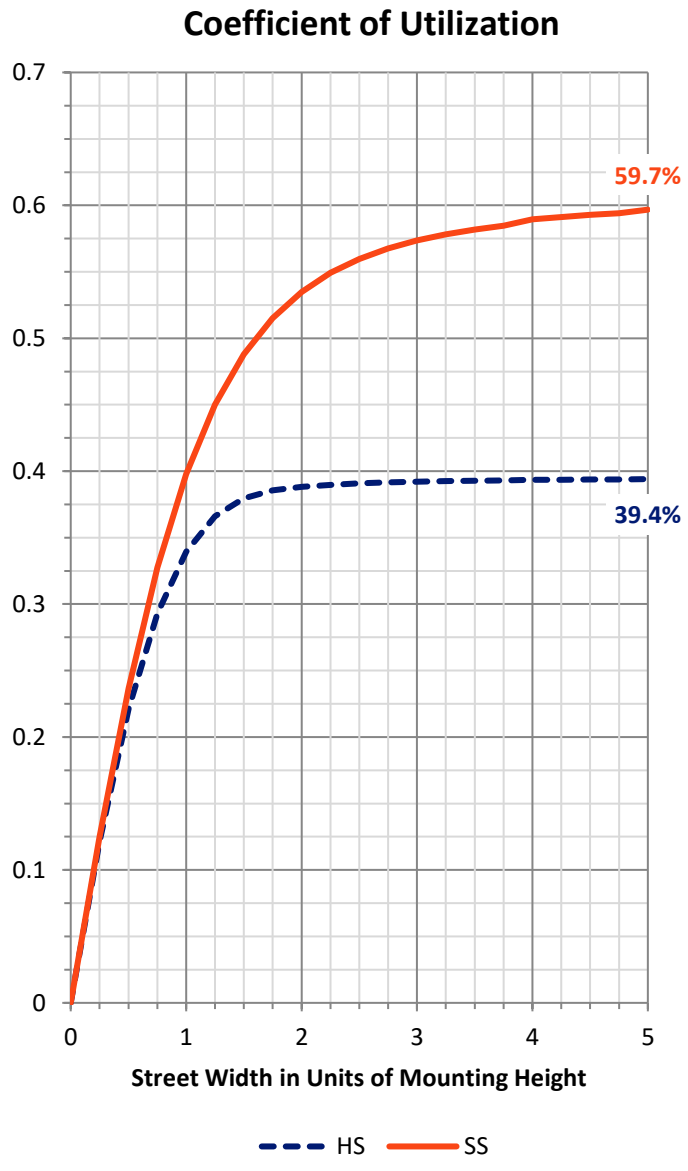
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2984.5	3.8	2988.3
	% Fixture	39.6	0.1	39.7
Street Side	Lumens	4521.7	21.0	4542.7
	% Fixture	60.0	0.3	60.3
Total	Lumens	7506.2	24.8	7530.9
	% Fixture	99.7	0.3	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	208.4	2.8
10°-20°	610.5	8.1
20°-30°	961.9	12.8
30°-40°	1224.2	16.3
40°-50°	1413.9	18.8
50°-60°	1384.5	18.4
60°-70°	1031.1	13.7
70°-80°	558.5	7.4
80°-90°	113.2	1.5
90°-100°	14.3	0.2
100°-110°	5.6	0.1
110°-120°	1.6	0.0
120°-130°	1.1	0.0
130°-140°	0.9	0.0
140°-150°	0.6	0.0
150°-160°	0.4	0.0
160°-170°	0.2	0.0
170°-180°	0.1	0.0
0°-90°	7506.2	99.7
0°-180°	7530.9	100.0



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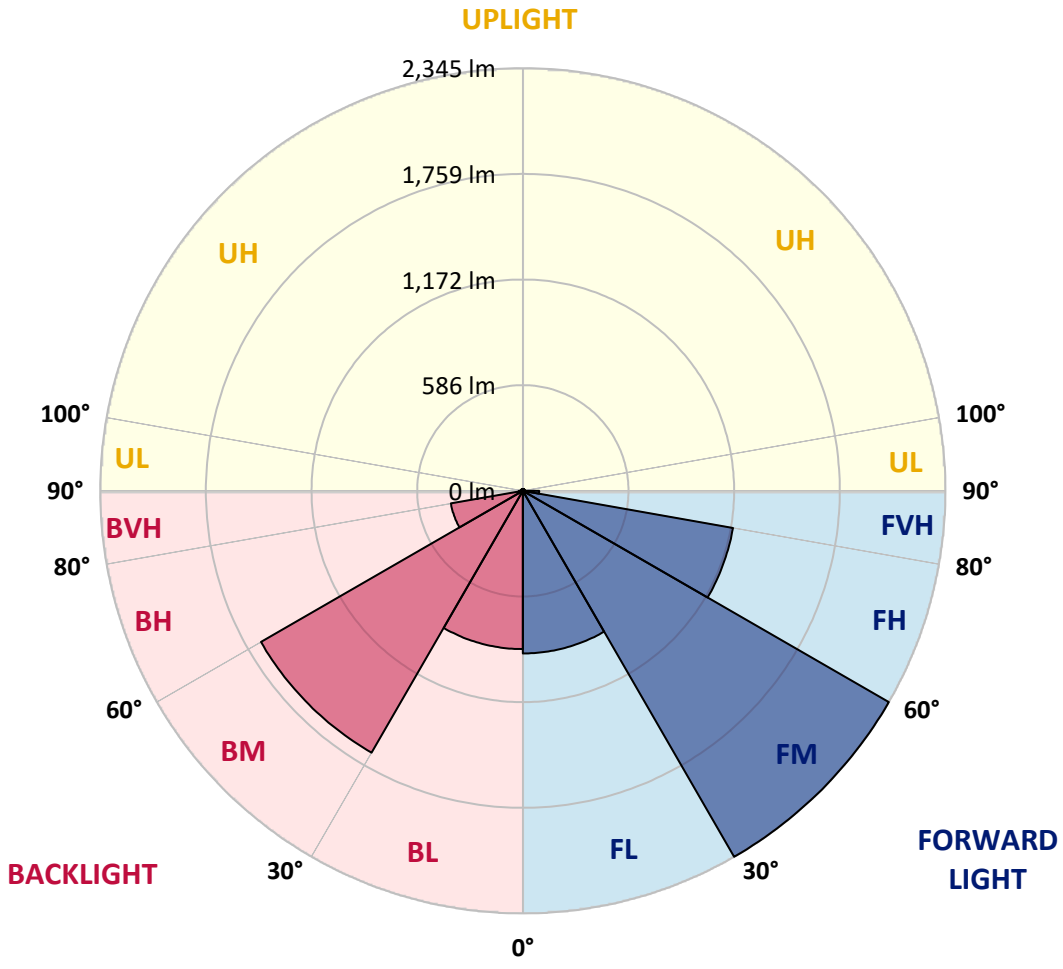
LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	902.4	12.0			
FM	(30°-60°)	2344.8	31.1			
FH	(60°-80°)	1184.1	15.7			G1/1800
FVH	(80°-90°)	90.4	1.2			G1/100
BL	(0°-30°)	878.4	11.7	B2/1000		
BM	(30°-60°)	1677.7	22.3	B2/2500		
BH	(60°-80°)	405.6	5.4	B1/500		G1/500
BVH	(80°-90°)	22.8	0.3			G1/100
UL	(90°-100°)	14.3	0.2		U2/50	
UH	(100°-180°)	10.4	0.1		U2/50	

BUG Rating: B2-U2-G1
Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	2193.5	2193.5	2193.5	2193.5	2193.5	2193.5	2193.5	2193.5	2193.5	2193.5	2193.5
2.5°	2196.3	2199.1	2197.7	2197.7	2194.9	2196.3	2194.9	2194.9	2193.5	2192.0	2192.0
4°	2197.7	2200.5	2197.7	2197.7	2196.3	2196.3	2194.9	2192.0	2193.5	2189.2	2187.8
5°	2199.1	2200.5	2199.1	2199.1	2196.3	2194.9	2192.0	2192.0	2190.6	2187.8	2187.8
7.5°	2196.3	2197.7	2197.7	2196.3	2193.5	2190.6	2189.2	2187.8	2186.4	2182.1	2182.1
10°	2190.6	2193.5	2190.6	2190.6	2189.2	2186.4	2182.1	2180.7	2176.5	2173.6	2172.2
12.5°	2185.0	2186.4	2185.0	2185.0	2182.1	2177.9	2176.5	2173.6	2168.0	2163.7	2163.7
15°	2176.5	2179.3	2177.9	2176.5	2175.0	2170.8	2166.6	2162.3	2158.1	2153.8	2153.8
17.5°	2166.6	2168.0	2169.4	2168.0	2165.1	2162.3	2158.1	2152.4	2148.1	2143.9	2142.5
20°	2155.2	2158.1	2158.1	2158.1	2155.2	2152.4	2146.7	2141.1	2138.2	2132.6	2131.2
22.5°	2143.9	2146.7	2145.3	2146.7	2145.3	2141.1	2135.4	2129.7	2124.1	2119.8	2117.0
25°	2132.6	2132.6	2132.6	2132.6	2132.6	2126.9	2121.2	2114.2	2108.5	2101.4	2101.4
27.5°	2118.4	2118.4	2119.8	2119.8	2118.4	2114.2	2107.1	2098.6	2090.1	2083.0	2080.2
30°	2105.7	2104.2	2107.1	2109.9	2108.5	2104.2	2095.8	2085.8	2073.1	2063.2	2054.7
32.5°	2090.1	2094.3	2097.2	2102.8	2104.2	2098.6	2088.7	2075.9	2063.2	2044.8	2029.2
35°	2084.4	2084.4	2091.5	2100.0	2102.8	2100.0	2085.8	2071.7	2053.3	2026.4	2008.0
37.5°	2078.8	2080.2	2091.5	2104.2	2108.5	2108.5	2092.9	2074.5	2049.0	2010.8	1988.1
40°	2075.9	2078.8	2092.9	2111.3	2122.7	2121.2	2102.8	2080.2	2049.0	1999.5	1971.1
42.5°	2073.1	2078.8	2094.3	2119.8	2136.8	2135.4	2115.6	2085.8	2046.2	1985.3	1952.7
45°	2068.8	2073.1	2094.3	2126.9	2149.6	2153.8	2131.2	2092.9	2046.2	1972.6	1930.1
47.5°	2056.1	2057.5	2085.8	2124.1	2158.1	2163.7	2141.1	2095.8	2040.5	1951.3	1901.8
50°	2022.1	2026.4	2058.9	2109.9	2149.6	2158.1	2138.2	2088.7	2026.4	1915.9	1856.4
52.5°	1978.2	1978.2	2017.9	2074.5	2122.7	2136.8	2118.4	2063.2	1991.0	1863.5	1795.5
55°	1913.1	1923.0	1964.1	2023.5	2075.9	2095.8	2070.3	2016.5	1932.9	1797.0	1721.9
57.5°	1839.4	1842.3	1884.8	1955.6	2009.4	2022.1	2000.9	1937.2	1856.4	1717.7	1628.5
60°	1733.2	1738.9	1792.7	1855.0	1913.1	1930.1	1903.2	1839.4	1754.5	1615.7	1525.1
62.5°	1615.7	1624.2	1672.4	1736.1	1791.3	1818.2	1785.6	1719.1	1635.5	1493.9	1414.6
65°	1474.1	1476.9	1529.3	1601.5	1656.8	1666.7	1638.4	1573.2	1489.7	1353.7	1282.9
67.5°	1311.3	1325.4	1376.4	1430.2	1478.4	1489.7	1469.9	1394.8	1328.3	1207.9	1138.5
70°	1154.1	1147.0	1189.5	1243.3	1287.2	1297.1	1274.4	1205.1	1142.8	1029.5	975.7
72.5°	964.3	958.7	1004.0	1045.0	1087.5	1081.9	1059.2	1004.0	950.2	853.9	804.3
75°	773.2	767.5	802.9	838.3	859.5	862.4	846.8	805.7	747.7	672.6	634.4
77.5°	586.2	591.9	607.5	637.2	657.0	665.5	638.6	597.6	560.8	502.7	474.4
80°	417.7	419.2	424.8	446.1	460.2	460.2	447.5	414.9	373.8	332.8	318.6
82.5°	263.4	269.0	269.0	290.3	290.3	279.0	273.3	252.1	230.8	198.2	178.4
85°	144.4	141.6	150.1	151.5	150.1	141.6	133.1	120.4	106.2	83.5	75.1
87.5°	63.7	62.3	62.3	62.3	60.9	55.2	46.7	36.8	25.5	15.6	11.3
90°	49.6	49.6	48.1	45.3	41.1	36.8	29.7	22.7	14.2	5.7	2.8
92.5°	45.3	45.3	43.9	42.5	38.2	34.0	26.9	19.8	12.7	5.7	2.8
95°	39.6	38.2	38.2	35.4	32.6	28.3	24.1	17.0	11.3	4.2	2.8
97.5°	32.6	31.2	31.2	29.7	26.9	22.7	19.8	14.2	9.9	4.2	2.8
100°	24.1	25.5	24.1	22.7	21.2	18.4	15.6	11.3	7.1	2.8	2.8
102.5°	18.4	18.4	17.0	17.0	15.6	14.2	11.3	8.5	5.7	2.8	1.4
105°	12.7	12.7	12.7	11.3	11.3	9.9	8.5	5.7	4.2	2.8	1.4
107.5°	7.1	7.1	7.1	7.1	7.1	7.1	5.7	4.2	2.8	1.4	1.4

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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
110°	4.2	*4.2*	4.2	4.2	4.2	4.2	2.8	2.8	1.4	1.4	1.4
112.5°	1.4	*1.4*	2.8	2.8	2.8	2.8	2.8	1.4	1.4	1.4	1.4
115°	1.4	*1.4*	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
117.5°	0.0	*0.0*	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
120°	0.0	*0.0*	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
122.5°	0.0	*0.0*	0.0	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
125°	0.0	*0.0*	0.0	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
127.5°	0.0	*0.0*	0.0	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
130°	0.0	*0.0*	0.0	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
132.5°	0.0	*0.0*	0.0	0.0	1.4	1.4	1.4	1.4	1.4	1.4	1.4
135°	0.0	*0.0*	0.0	0.0	1.4	1.4	1.4	1.4	1.4	1.4	1.4
137.5°	0.0	*0.0*	0.0	0.0	1.4	1.4	1.4	1.4	1.4	1.4	1.4
140°	0.0	*0.0*	0.0	0.0	1.4	1.4	1.4	1.4	1.4	1.4	1.4
142.5°	0.0	*0.0*	0.0	0.0	0.0	1.4	1.4	1.4	1.4	1.4	1.4
145°	1.4	*1.4*	0.0	0.0	0.0	1.4	1.4	1.4	1.4	1.4	1.4
147.5°	1.4	*1.4*	0.0	0.0	0.0	1.4	1.4	1.4	1.4	1.4	1.4
150°	1.4	*0.0*	0.0	0.0	0.0	1.4	1.4	1.4	1.4	1.4	1.4
152.5°	0.0	*0.0*	0.0	0.0	0.0	1.4	1.4	1.4	1.4	1.4	1.4
155°	0.0	*0.0*	0.0	0.0	0.0	1.4	1.4	1.4	1.4	1.4	1.4
157.5°	0.0	*0.0*	0.0	0.0	0.0	1.4	1.4	1.4	1.4	1.4	1.4
160°	0.0	*0.0*	0.0	0.0	0.0	1.4	1.4	1.4	1.4	1.4	1.4
162.5°	0.0	*0.0*	0.0	0.0	0.0	1.4	1.4	1.4	1.4	1.4	1.4
165°	0.0	*0.0*	0.0	0.0	0.0	1.4	1.4	1.4	1.4	1.4	1.4
167.5°	0.0	*0.0*	0.0	0.0	0.0	1.4	1.4	1.4	1.4	1.4	1.4
170°	0.0	*0.0*	0.0	0.0	0.0	1.4	1.4	1.4	1.4	1.4	1.4
172.5°	0.0	*0.0*	0.0	0.0	1.4	1.4	1.4	1.4	1.4	1.4	1.4
175°	0.0	*0.0*	0.0	0.0	1.4	1.4	1.4	1.4	1.4	1.4	1.4
177.5°	0.0	*0.0*	0.0	0.0	1.4	1.4	1.4	1.4	1.4	1.4	1.4
180°	1.4	*1.4*	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4

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CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2193.5	2193.5	2193.5	2193.5	2193.5	2193.5	2193.5	2193.5	2193.5	2193.5
2.5°	2190.6	2186.4	2189.2	2187.8	2189.2	2186.4	2186.4	2186.4	2187.8	2185.0
4°	*2189.2*	*2186.4*	*2186.4*	*2186.4*	*2186.4*	*2183.5*	*2183.5*	*2183.5*	*2182.1*	*2183.5*
5°	2186.4	2185.0	2183.5	2182.1	2183.5	2180.7	2179.3	2179.3	2179.3	2180.7
7.5°	2180.7	2176.5	2176.5	2172.2	2173.6	2172.2	2170.8	2172.2	2170.8	2170.8
10°	2170.8	2168.0	2166.6	2163.7	2163.7	2160.9	2159.5	2159.5	2159.5	2158.1
12.5°	2160.9	2158.1	2156.6	2153.8	2152.4	2149.6	2148.1	2149.6	2146.7	2146.7
15°	2149.6	2146.7	2145.3	2145.3	2142.5	2139.6	2138.2	2135.4	2135.4	2135.4
17.5°	2139.6	2136.8	2138.2	2135.4	2134.0	2131.2	2131.2	2125.5	2125.5	2124.1
20°	2129.7	2126.9	2126.9	2125.5	2125.5	2122.7	2118.4	2115.6	2114.2	2114.2
22.5°	2117.0	2112.7	2105.7	2095.8	2090.1	2085.8	2084.4	2080.2	2078.8	2075.9
25°	2097.2	2085.8	2070.3	2053.3	2036.3	2027.8	2024.9	2019.3	2019.3	2019.3
27.5°	2073.1	2051.9	2030.6	2005.1	1979.6	1962.6	1951.3	1945.6	1942.8	1942.8
30°	2041.9	2015.0	1985.3	1952.7	1924.4	1893.3	1873.4	1862.1	1856.4	1857.9
32.5°	2013.6	1979.6	1945.6	1904.6	1866.4	1829.5	1795.5	1778.6	1771.5	1768.6
35°	1985.3	1947.1	1906.0	1862.1	1812.5	1758.7	1713.4	1687.9	1673.8	1675.2
37.5°	1964.1	1918.7	1873.4	1819.6	1763.0	1697.8	1639.8	1598.7	1581.7	1584.6
40°	1941.4	1890.4	1840.9	1778.6	1712.0	1634.1	1559.1	1503.8	1484.0	1479.8
42.5°	1920.2	1860.7	1804.0	1737.5	1653.9	1566.1	1474.1	1409.0	1379.2	1375.0
45°	1893.3	1826.7	1765.8	1689.3	1597.3	1488.3	1380.6	1295.7	1264.5	1251.8
47.5°	1857.9	1784.2	1716.2	1628.5	1527.9	1404.7	1270.2	1165.4	1125.8	1115.8
50°	1805.5	1720.5	1651.1	1552.0	1430.2	1294.3	1144.2	1015.3	962.9	955.8
52.5°	1736.1	1649.7	1571.8	1458.5	1309.8	1149.8	979.9	846.8	785.9	781.7
55°	1652.5	1559.1	1474.1	1346.7	1172.5	987.0	810.0	641.5	582.0	574.9
57.5°	1554.8	1458.5	1366.5	1209.3	1008.2	801.5	596.2	434.7	378.1	363.9
60°	1447.2	1348.1	1244.7	1053.5	787.3	567.8	361.1	230.8	188.3	174.2
62.5°	1342.4	1234.8	1125.8	868.0	539.5	324.3	164.3	66.6	42.5	41.1
65°	1219.2	1117.3	1005.4	699.5	341.3	145.9	48.1	1.4	0.0	0.0
67.5°	1076.2	989.8	890.7	625.9	301.6	127.4	41.1	1.4	0.0	0.0
70°	923.3	855.3	767.5	538.1	259.1	107.6	35.4	0.0	0.0	0.0
72.5°	761.8	703.8	638.6	447.5	215.2	89.2	28.3	0.0	0.0	0.0
75°	597.6	560.8	502.7	354.0	167.1	68.0	21.2	0.0	0.0	0.0
77.5°	443.2	413.5	371.0	260.6	126.0	49.6	15.6	0.0	0.0	0.0
80°	298.8	276.1	252.1	177.0	85.0	32.6	9.9	0.0	0.0	0.0
82.5°	174.2	157.2	141.6	100.5	46.7	18.4	4.2	0.0	0.0	0.0
85°	70.8	65.1	62.3	42.5	18.4	5.7	1.4	0.0	0.0	0.0
87.5°	8.5	7.1	7.1	4.2	1.4	0.0	0.0	0.0	0.0	0.0
90°	1.4	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
92.5°	1.4	1.4	1.4	1.4	1.4	0.0	0.0	0.0	0.0	0.0
95°	1.4	1.4	1.4	1.4	1.4	1.4	0.0	0.0	0.0	0.0
97.5°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	0.0
100°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
102.5°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
105°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
107.5°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4

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

Scaled Data Report

REPORT NUMBER: P821203
CATALOG NUMBER: TT-D5-735-24VDC-5CQ-PM-HSS

CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
110°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
112.5°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
115°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
117.5°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
120°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
122.5°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
125°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
127.5°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
130°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
132.5°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
135°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
137.5°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	0.0	0.0
140°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	0.0	0.0
142.5°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	0.0	0.0	0.0
145°	1.4	1.4	1.4	1.4	1.4	1.4	0.0	0.0	0.0	0.0
147.5°	1.4	1.4	1.4	1.4	1.4	1.4	0.0	0.0	0.0	1.4
150°	1.4	1.4	1.4	1.4	1.4	0.0	0.0	0.0	0.0	0.0
152.5°	1.4	1.4	1.4	1.4	1.4	0.0	0.0	0.0	0.0	0.0
155°	1.4	1.4	1.4	1.4	1.4	0.0	0.0	0.0	0.0	0.0
157.5°	1.4	1.4	1.4	1.4	1.4	0.0	0.0	0.0	0.0	0.0
160°	1.4	1.4	1.4	1.4	1.4	0.0	0.0	0.0	0.0	0.0
162.5°	1.4	1.4	1.4	1.4	1.4	0.0	0.0	0.0	0.0	0.0
165°	1.4	1.4	1.4	1.4	1.4	0.0	0.0	0.0	0.0	0.0
167.5°	1.4	1.4	1.4	1.4	1.4	0.0	0.0	0.0	0.0	0.0
170°	1.4	1.4	1.4	1.4	1.4	0.0	0.0	0.0	0.0	0.0
172.5°	1.4	1.4	1.4	1.4	1.4	0.0	0.0	0.0	0.0	0.0
175°	1.4	1.4	1.4	1.4	1.4	0.0	0.0	0.0	0.0	0.0
177.5°	1.4	1.4	1.4	1.4	1.4	0.0	0.0	0.0	0.0	0.0
180°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4

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

Streetworks

Report Number: SP1-2407-176-4

Test Date: 09/24/2024

Luminaire Tested: MEM2-HTN-VA-30-735-U-WQ

Data in this report applies to families of products including MEM2-HTN-VA-30-735-U-WQ

Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

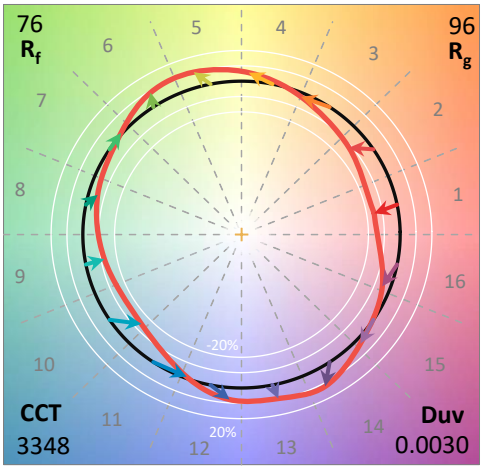
Test Information

Test Method:	LM-79-2019
Report Number:	SP1-2407-176-4
Test Lab:	COOPER LIGHTING SOLUTIONS
Photometer:	SP1 - 76IN SPHERE
Measurement Geometry:	4π
Issue Date:	09/27/2024
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	Streetworks
Catalog Number:	**MEM2-HTN-VA-30-735-U-WQ**
Description:	EPIC MODERN VISUAL COMFORT 30W WAVESTREAM WIDE

Spectral Parameters

CCT (K):	3348	CRI (Ra):	73.4		
CIE u':	0.2384	R1:	70.8	R9:	-19.2
CIE v':	0.5184	R2:	79.9	R10:	52.5
Duv:	0.0030	R3:	87.6	R11:	68.0
CIE x:	0.4177	R4:	72.6	R12:	42.6
CIE y:	0.4036	R5:	69.3	R13:	72.0
CIE z:	0.1787	R6:	71.3	R14:	92.6
Peak Wavelength (nm):	593	R7:	82.1	R15:	63.8
Dominant Wavelength (nm):	580	R8:	53.3		
Purity:	46.5223				

Rf:	75.8
Rg:	95.8



Test Conditions

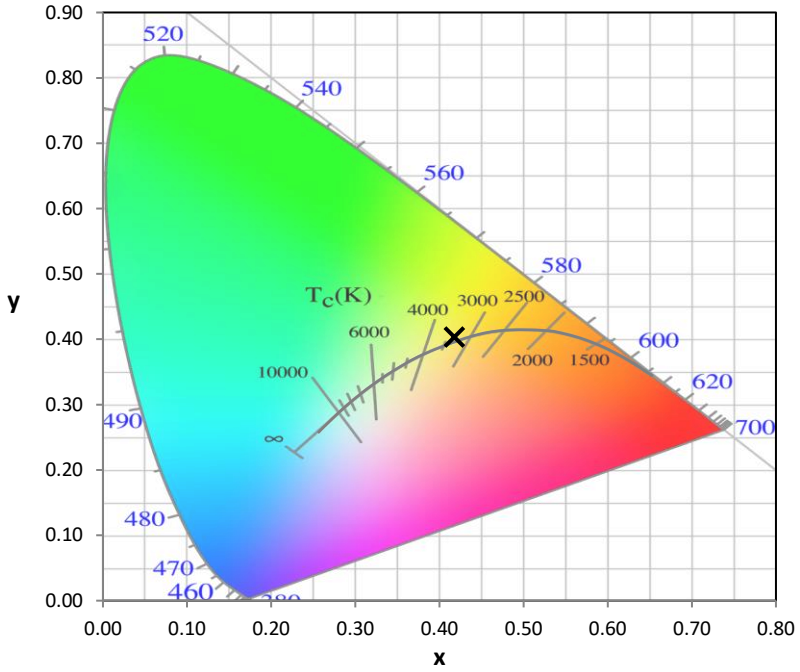
Stabilization Time:	30M
Operation Time:	1H 30M
Sphere Temperature (°C):	25.2

REPORT NUMBER: SP1-2407-176-4

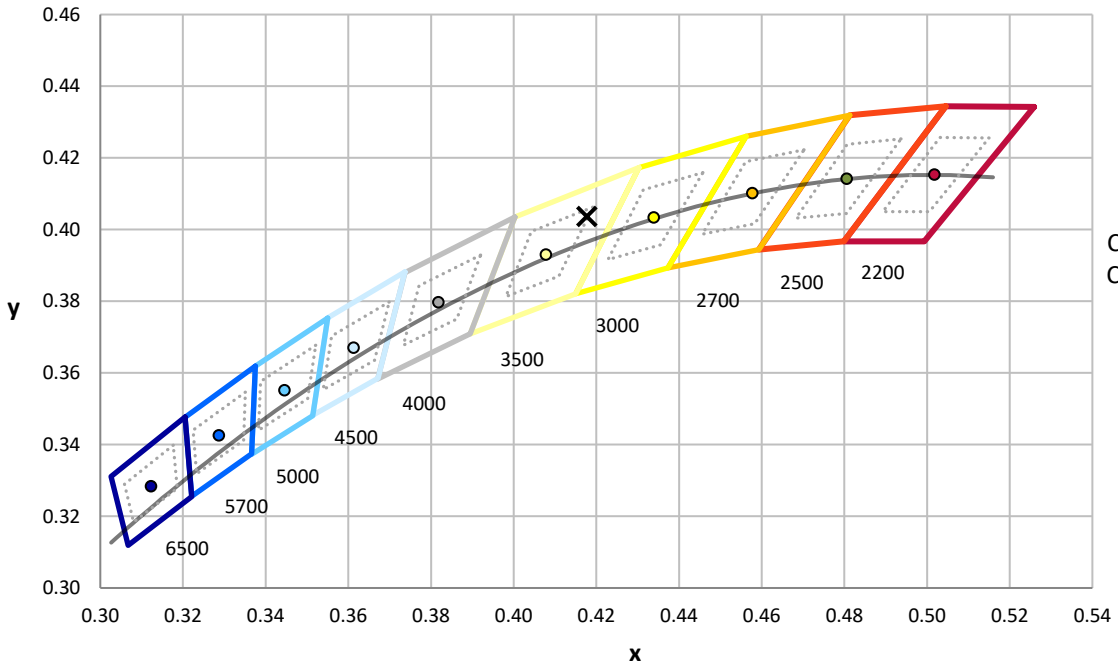
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085	10/24/2023	10/24/2024
Room Thermometer	IN0046	10/24/2023	10/24/2024

REPORT NUMBER: SP1-2407-176-4

CIE 1931 Chromaticity Diagram



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

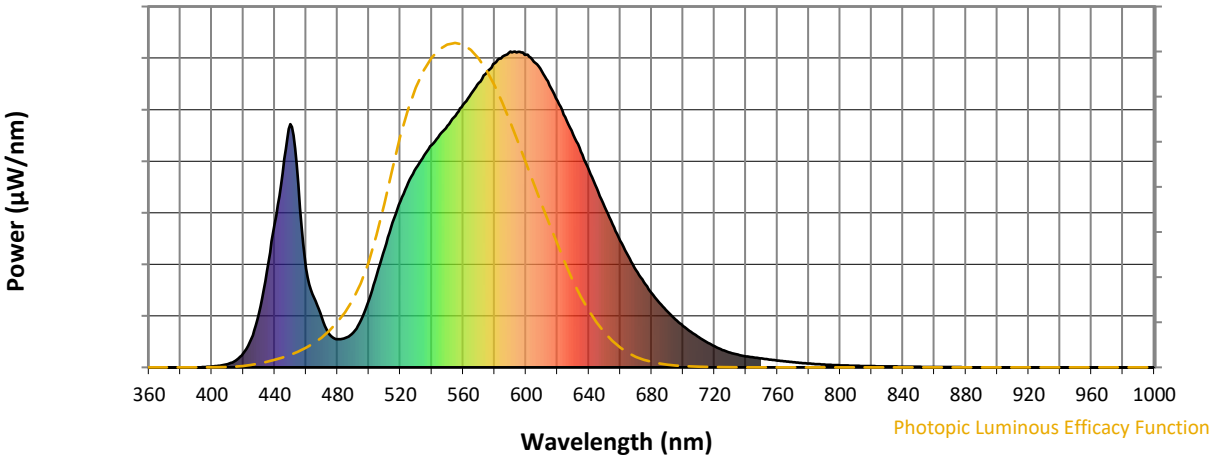


CCT = 3348K
CIE x = 0.4177
CIE y = 0.4036
Duv = 0.0030

Point lies inside the ANSI 3500K 4-step quadrangle

REPORT NUMBER: SP1-2407-176-4

Photopic Flux vs. Wavelength

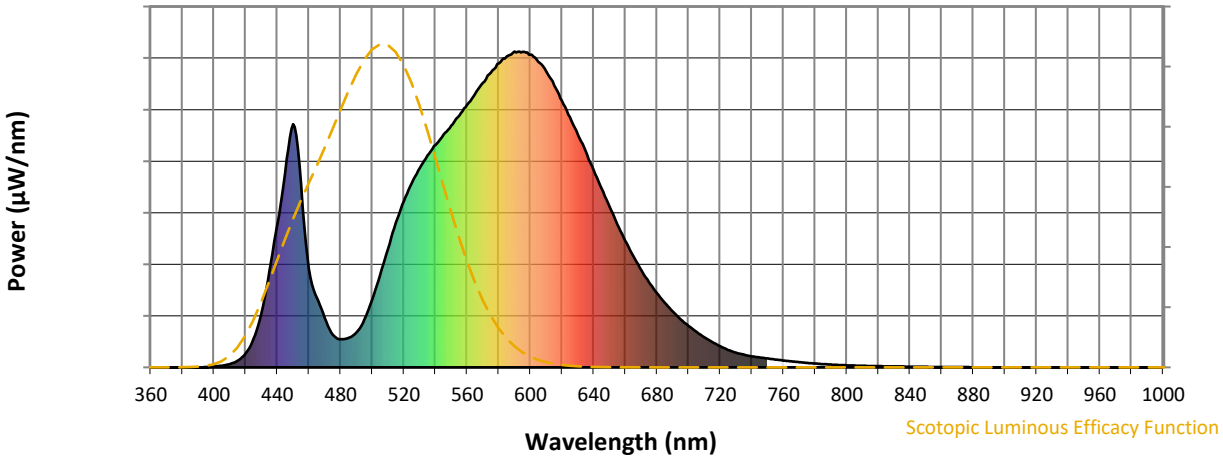


Photopic Lumens: NR

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	110	NR	620	844	NR	750	28	NR	880	0	NR
365	0	NR	495	150	NR	625	792	NR	755	25	NR	885	0	NR
370	0	NR	500	214	NR	630	737	NR	760	22	NR	890	0	NR
375	0	NR	505	293	NR	635	683	NR	765	19	NR	895	0	NR
380	0	NR	510	376	NR	640	625	NR	770	16	NR	900	0	NR
385	0	NR	515	458	NR	645	566	NR	775	14	NR	905	0	NR
390	0	NR	520	526	NR	650	509	NR	780	12	NR	910	0	NR
395	1	NR	525	584	NR	655	453	NR	785	10	NR	915	0	NR
400	3	NR	530	631	NR	660	401	NR	790	9	NR	920	0	NR
405	5	NR	535	671	NR	665	353	NR	795	8	NR	925	0	NR
410	10	NR	540	704	NR	670	308	NR	800	7	NR	930	0	NR
415	21	NR	545	737	NR	675	269	NR	805	6	NR	935	0	NR
420	44	NR	550	766	NR	680	235	NR	810	5	NR	940	0	NR
425	90	NR	555	797	NR	685	204	NR	815	4	NR	945	0	NR
430	171	NR	560	832	NR	690	177	NR	820	4	NR	950	0	NR
435	305	NR	565	866	NR	695	152	NR	825	3	NR	955	0	NR
440	455	NR	570	901	NR	700	131	NR	830	3	NR	960	0	NR
445	615	NR	575	933	NR	705	112	NR	835	3	NR	965	0	NR
450	771	NR	580	963	NR	710	96	NR	840	2	NR	970	0	NR
455	579	NR	585	984	NR	715	80	NR	845	2	NR	975	0	NR
460	313	NR	590	1000	NR	720	67	NR	850	2	NR	980	0	NR
465	221	NR	595	999	NR	725	55	NR	855	1	NR	985	0	NR
470	156	NR	600	990	NR	730	46	NR	860	1	NR	990	0	NR
475	103	NR	605	968	NR	735	40	NR	865	1	NR	995	0	NR
480	89	NR	610	937	NR	740	35	NR	870	1	NR	1000	0	NR
485	93	NR	615	893	NR	745	31	NR	875	1	NR			

REPORT NUMBER: SP1-2407-176-4

Scotopic Flux vs. Wavelength

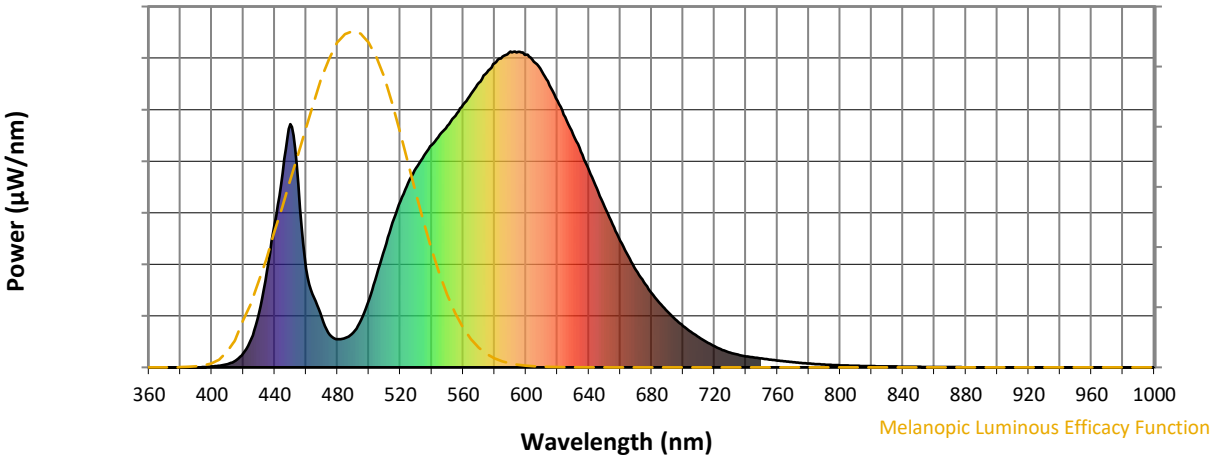


Scotopic Lumens: NR **S/P: 1.31**

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	110	NR	620	844	NR	750	28	NR	880	0	NR
365	0	NR	495	150	NR	625	792	NR	755	25	NR	885	0	NR
370	0	NR	500	214	NR	630	737	NR	760	22	NR	890	0	NR
375	0	NR	505	293	NR	635	683	NR	765	19	NR	895	0	NR
380	0	NR	510	376	NR	640	625	NR	770	16	NR	900	0	NR
385	0	NR	515	458	NR	645	566	NR	775	14	NR	905	0	NR
390	0	NR	520	526	NR	650	509	NR	780	12	NR	910	0	NR
395	1	NR	525	584	NR	655	453	NR	785	10	NR	915	0	NR
400	3	NR	530	631	NR	660	401	NR	790	9	NR	920	0	NR
405	5	NR	535	671	NR	665	353	NR	795	8	NR	925	0	NR
410	10	NR	540	704	NR	670	308	NR	800	7	NR	930	0	NR
415	21	NR	545	737	NR	675	269	NR	805	6	NR	935	0	NR
420	44	NR	550	766	NR	680	235	NR	810	5	NR	940	0	NR
425	90	NR	555	797	NR	685	204	NR	815	4	NR	945	0	NR
430	171	NR	560	832	NR	690	177	NR	820	4	NR	950	0	NR
435	305	NR	565	866	NR	695	152	NR	825	3	NR	955	0	NR
440	455	NR	570	901	NR	700	131	NR	830	3	NR	960	0	NR
445	615	NR	575	933	NR	705	112	NR	835	3	NR	965	0	NR
450	771	NR	580	963	NR	710	96	NR	840	2	NR	970	0	NR
455	579	NR	585	984	NR	715	80	NR	845	2	NR	975	0	NR
460	313	NR	590	1000	NR	720	67	NR	850	2	NR	980	0	NR
465	221	NR	595	999	NR	725	55	NR	855	1	NR	985	0	NR
470	156	NR	600	990	NR	730	46	NR	860	1	NR	990	0	NR
475	103	NR	605	968	NR	735	40	NR	865	1	NR	995	0	NR
480	89	NR	610	937	NR	740	35	NR	870	1	NR	1000	0	NR
485	93	NR	615	893	NR	745	31	NR	875	1	NR			

REPORT NUMBER: SP1-2407-176-4

Melanopic Flux vs. Wavelength



Melanopic Lumens: NR **M/P: 2.4**

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	110	NR	620	844	NR	750	28	NR	880	0	NR
365	0	NR	495	150	NR	625	792	NR	755	25	NR	885	0	NR
370	0	NR	500	214	NR	630	737	NR	760	22	NR	890	0	NR
375	0	NR	505	293	NR	635	683	NR	765	19	NR	895	0	NR
380	0	NR	510	376	NR	640	625	NR	770	16	NR	900	0	NR
385	0	NR	515	458	NR	645	566	NR	775	14	NR	905	0	NR
390	0	NR	520	526	NR	650	509	NR	780	12	NR	910	0	NR
395	1	NR	525	584	NR	655	453	NR	785	10	NR	915	0	NR
400	3	NR	530	631	NR	660	401	NR	790	9	NR	920	0	NR
405	5	NR	535	671	NR	665	353	NR	795	8	NR	925	0	NR
410	10	NR	540	704	NR	670	308	NR	800	7	NR	930	0	NR
415	21	NR	545	737	NR	675	269	NR	805	6	NR	935	0	NR
420	44	NR	550	766	NR	680	235	NR	810	5	NR	940	0	NR
425	90	NR	555	797	NR	685	204	NR	815	4	NR	945	0	NR
430	171	NR	560	832	NR	690	177	NR	820	4	NR	950	0	NR
435	305	NR	565	866	NR	695	152	NR	825	3	NR	955	0	NR
440	455	NR	570	901	NR	700	131	NR	830	3	NR	960	0	NR
445	615	NR	575	933	NR	705	112	NR	835	3	NR	965	0	NR
450	771	NR	580	963	NR	710	96	NR	840	2	NR	970	0	NR
455	579	NR	585	984	NR	715	80	NR	845	2	NR	975	0	NR
460	313	NR	590	1000	NR	720	67	NR	850	2	NR	980	0	NR
465	221	NR	595	999	NR	725	55	NR	855	1	NR	985	0	NR
470	156	NR	600	990	NR	730	46	NR	860	1	NR	990	0	NR
475	103	NR	605	968	NR	735	40	NR	865	1	NR	995	0	NR
480	89	NR	610	937	NR	740	35	NR	870	1	NR	1000	0	NR
485	93	NR	615	893	NR	745	31	NR	875	1	NR			

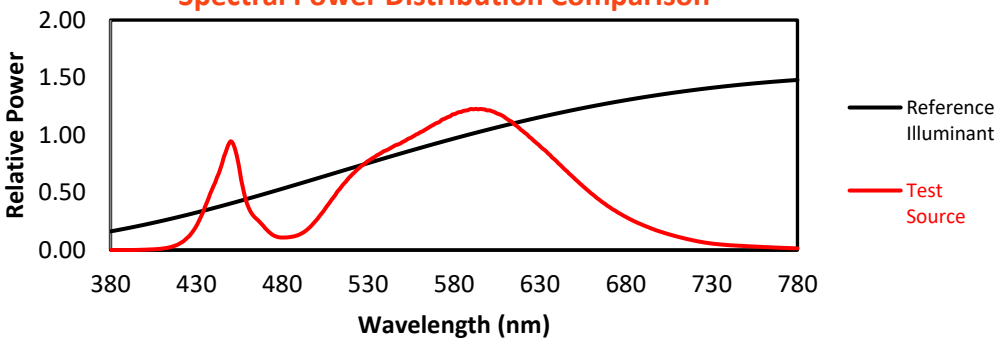
REPORT NUMBER: SP1-2407-176-4

TM-30-18

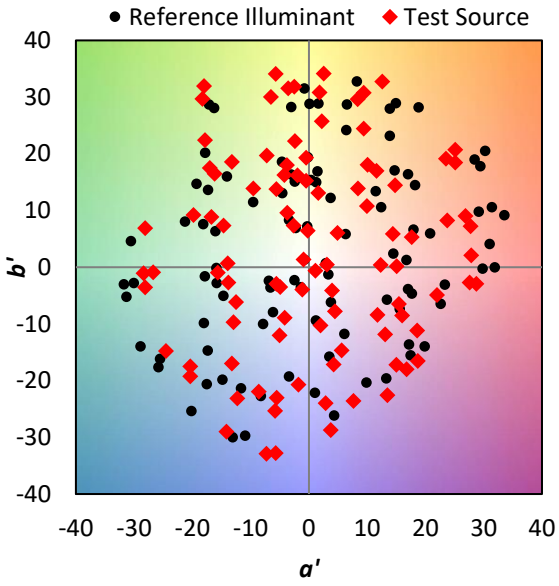
Summary

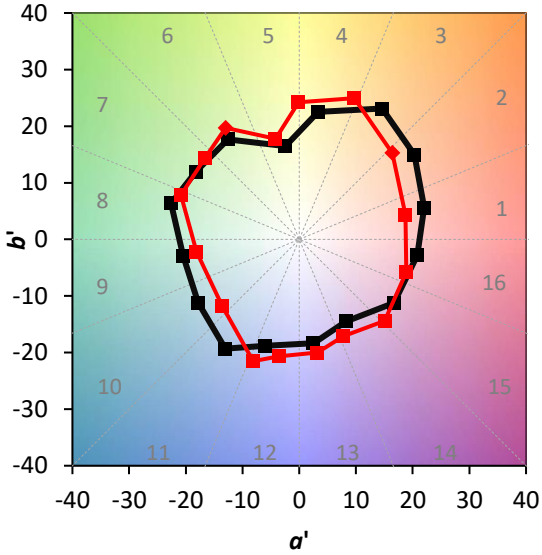
R_f = 75.8
R_g = 95.8
CIE R_a = 73.4
R_9 = -19.2

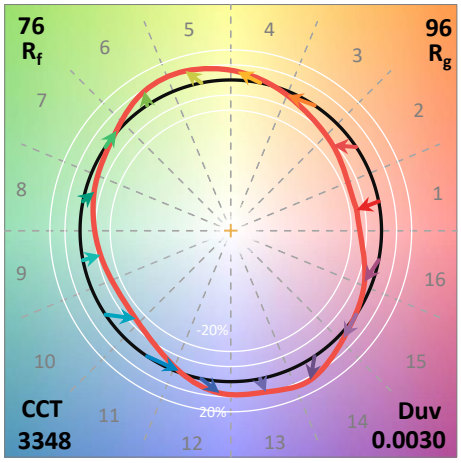
Spectral Power Distribution Comparison

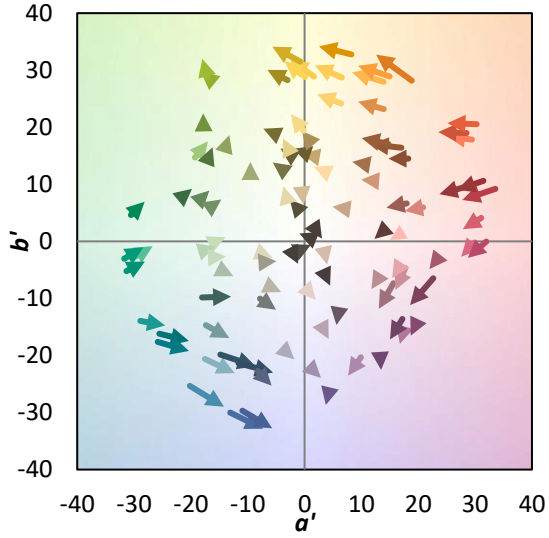


Color Vector Graphics







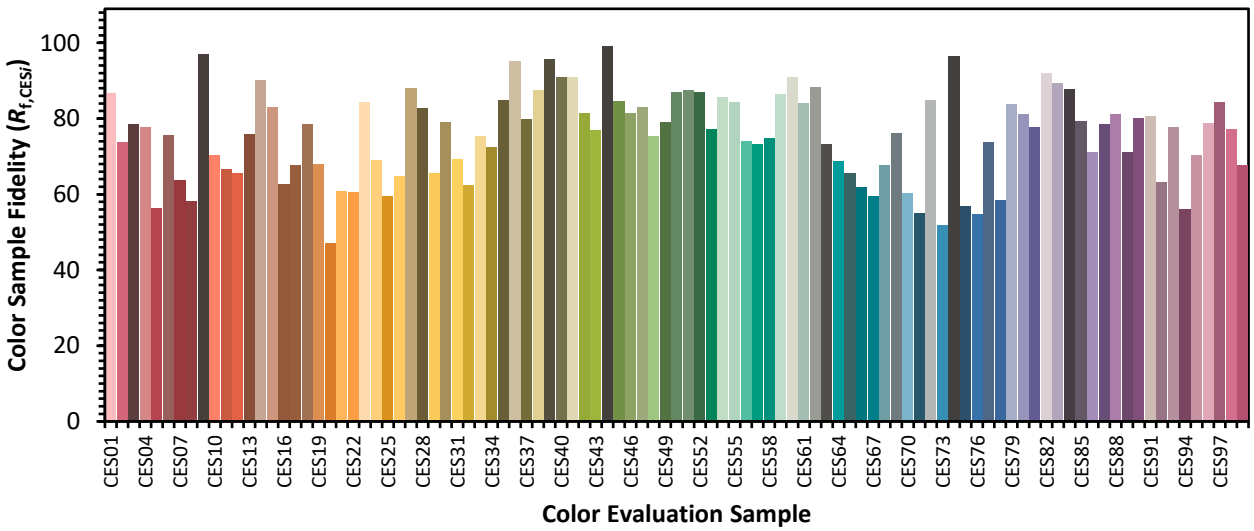


REPORT NUMBER: SP1-2407-176-4

TM-30-18

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

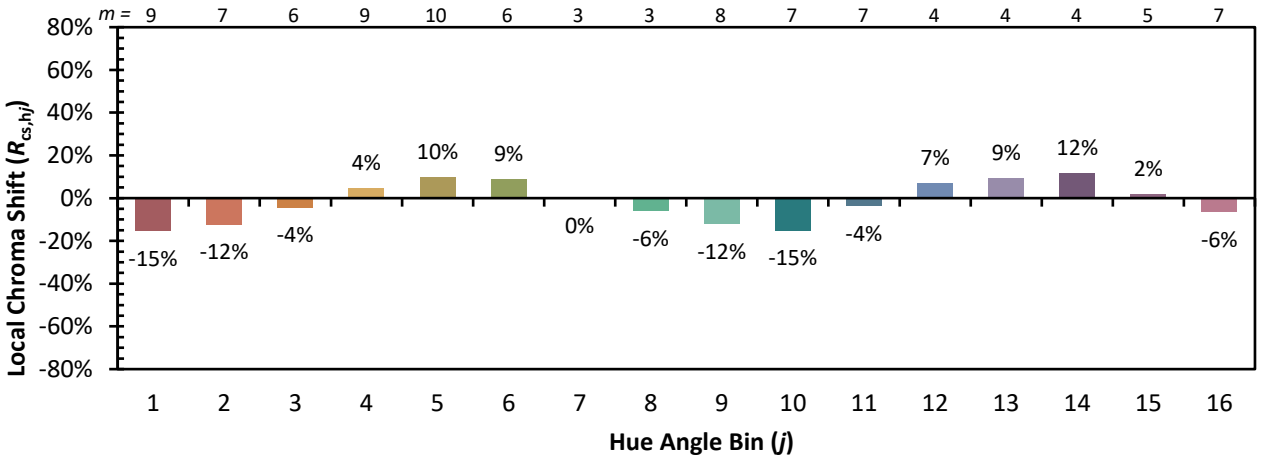
CES01 = 86	CES26 = 65	CES51 = 88	CES76 = 55
CES02 = 62	CES27 = 88	CES52 = 87	CES77 = 74
CES03 = 31	CES28 = 83	CES53 = 77	CES78 = 58
CES04 = 70	CES29 = 66	CES54 = 86	CES79 = 84
CES05 = 48	CES30 = 79	CES55 = 84	CES80 = 81
CES06 = 51	CES31 = 69	CES56 = 74	CES81 = 78
CES07 = 41	CES32 = 62	CES57 = 73	CES82 = 92
CES08 = 40	CES33 = 75	CES58 = 75	CES83 = 89
CES09 = 29	CES34 = 73	CES59 = 87	CES84 = 88
CES10 = 75	CES35 = 85	CES60 = 91	CES85 = 79
CES11 = 58	CES36 = 95	CES61 = 84	CES86 = 71
CES12 = 64	CES37 = 80	CES62 = 88	CES87 = 79
CES13 = 43	CES38 = 88	CES63 = 73	CES88 = 81
CES14 = 74	CES39 = 96	CES64 = 69	CES89 = 71
CES15 = 71	CES40 = 91	CES65 = 66	CES90 = 80
CES16 = 47	CES41 = 91	CES66 = 62	CES91 = 81
CES17 = 50	CES42 = 81	CES67 = 60	CES92 = 63
CES18 = 56	CES43 = 77	CES68 = 68	CES93 = 78
CES19 = 72	CES44 = 99	CES69 = 76	CES94 = 56
CES20 = 65	CES45 = 85	CES70 = 60	CES95 = 70
CES21 = 87	CES46 = 82	CES71 = 55	CES96 = 79
CES22 = 79	CES47 = 83	CES72 = 85	CES97 = 84
CES23 = 92	CES48 = 75	CES73 = 52	CES98 = 77
CES24 = 91	CES49 = 79	CES74 = 96	CES99 = 68
CES25 = 72	CES50 = 87	CES75 = 57	

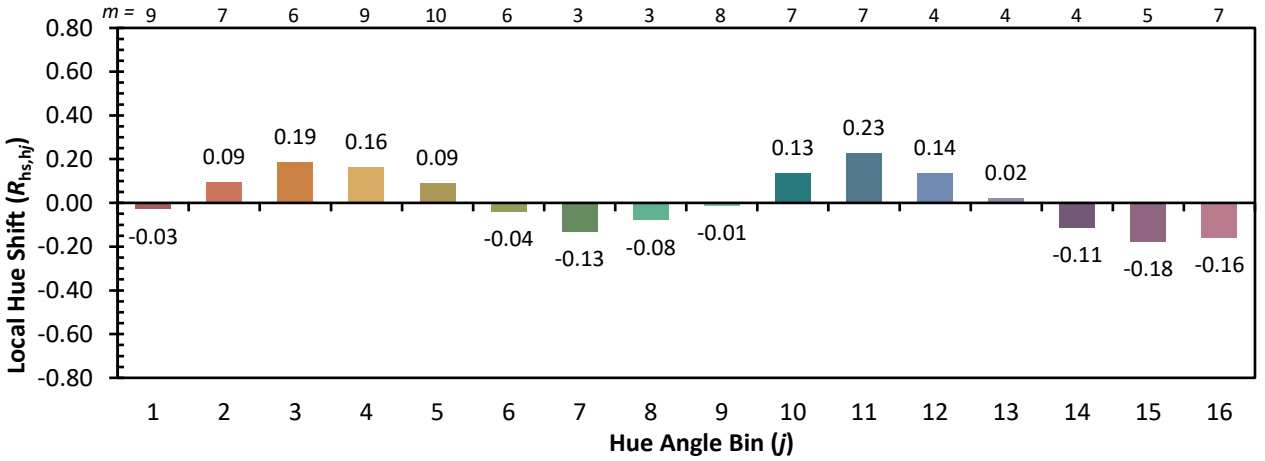


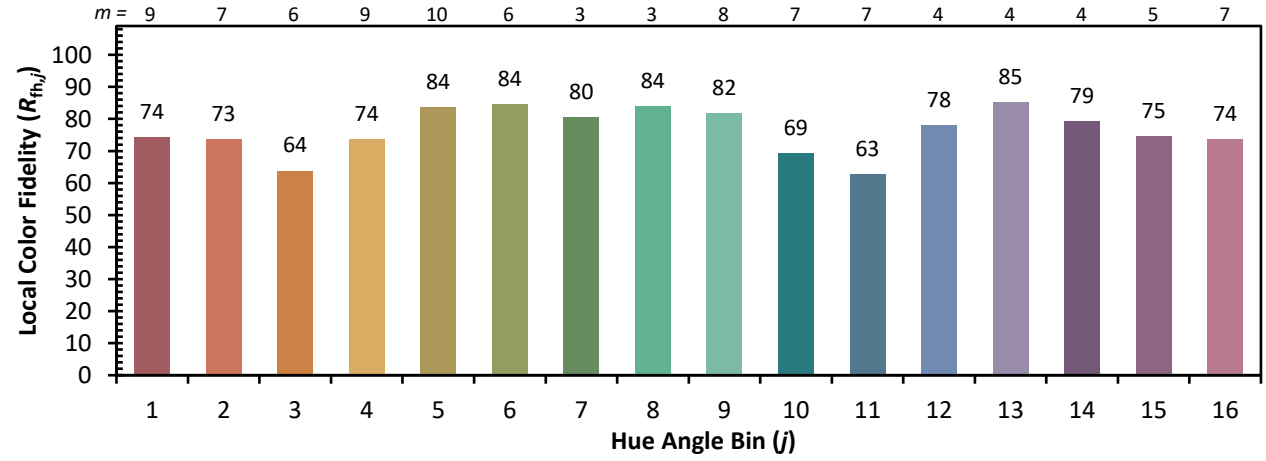
REPORT NUMBER: SP1-2407-176-4

TM-30-18

Color Rendition by Hue-Angle Bin



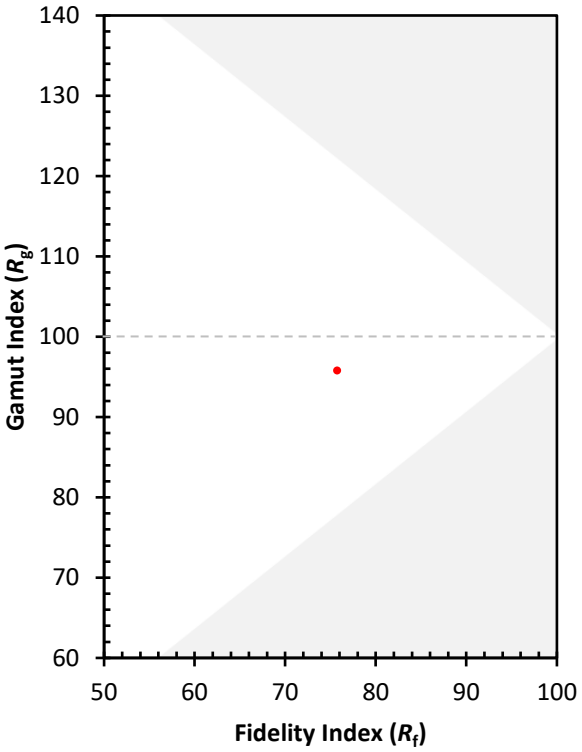


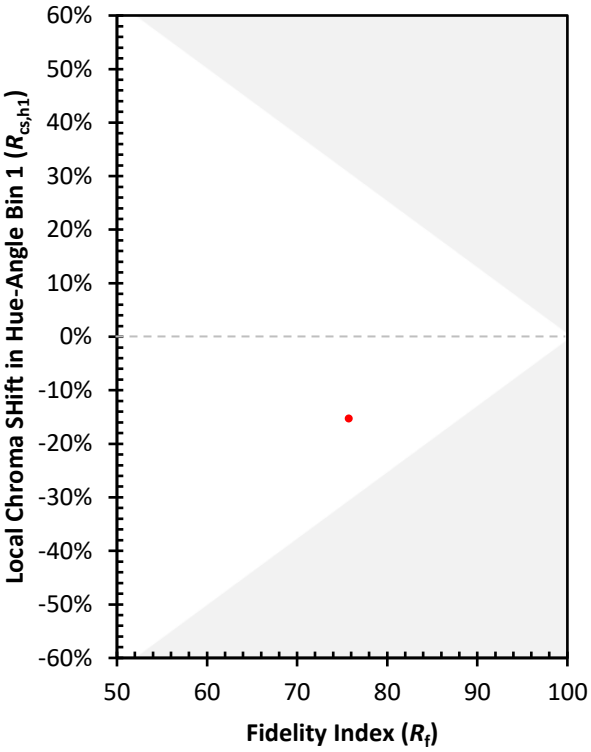


REPORT NUMBER: SP1-2407-176-4

TM-30-18

Measure Comparisons





(END OF REPORT)