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: P821544

Luminaire Tested: **TT-D5-740-12VDC-CQ-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:	P821544
	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-D5-740-12VDC-CQ-HSS
Description:	TOPTIER LED PARKING GARAGE LUMINAIRE
	4000K, 70 CRI LEDS AND CONCENTRATED DISTRIBUTION WITH HOUSE SIDE SHIELD
Light Source:	-
Ballast/Driver:	ELECTRONIC DRIVER

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	7967 lumens
Efficiency:	N/A
Efficacy:	109.1 lumens/watt
Luminous Opening:	Circular (Dia: 1.12' x H: 0')
IES Classification:	Type IV - Short
BUG Rating:	B2 - U2 - G1

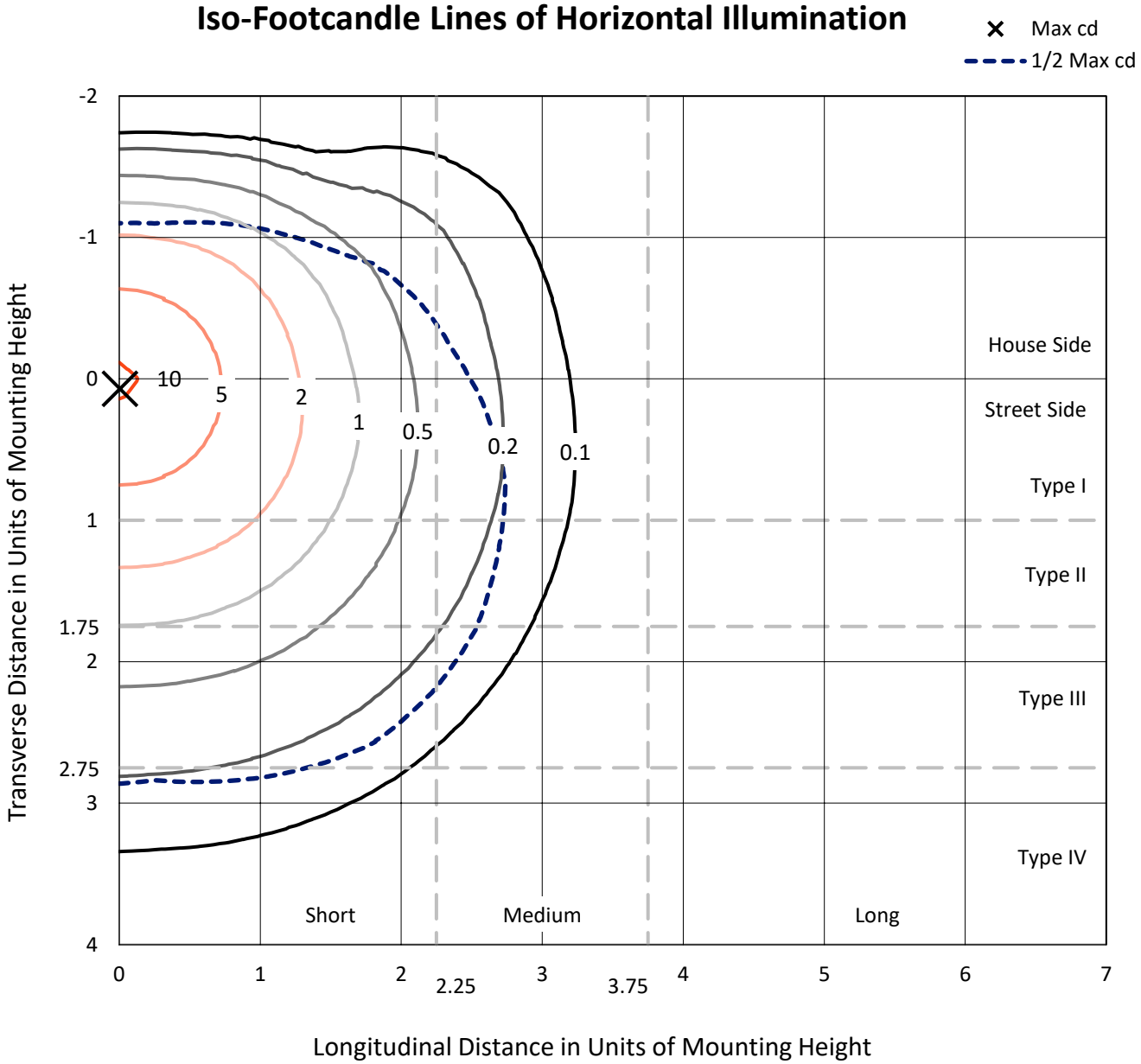
Input Watts (W):	73
Input Voltage (V):	NR
Input Current (Ain):	NR
Voltage Rise (V):	NR
Power Factor:	NR
Total Harmonic Distortion (THDi):	NR
Frequency (hertz):	60
Stabilization Time:	NR
Operation Time:	NR
Ambient Temperature (°C):	NR
Test Distance:	25 FT

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Iso-Footcandle Lines of Horizontal Illumination



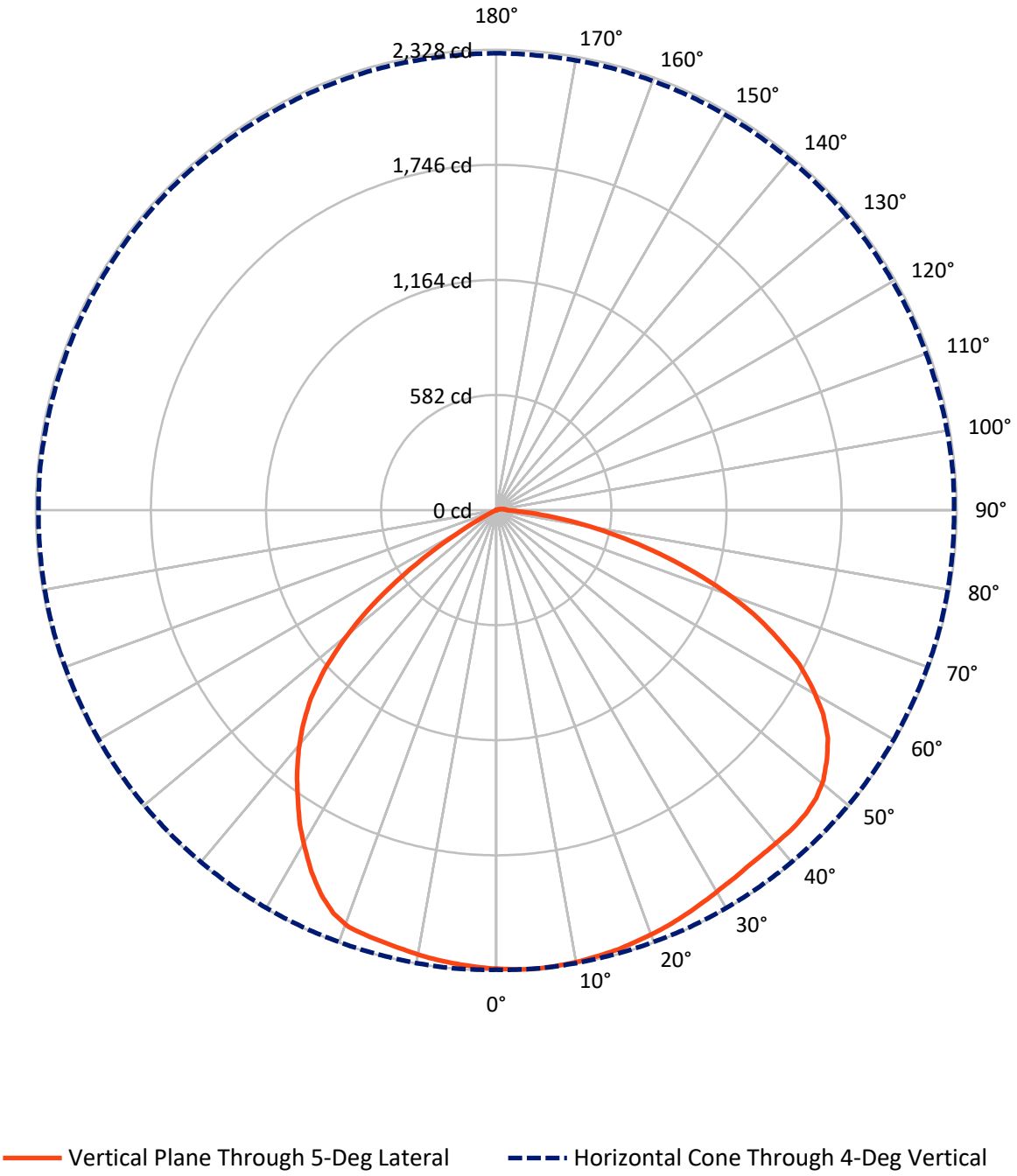
Based on 15 foot mounting height. Maximum calculated value = 10.3 fc
Type IV - Short - N/A

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Luminous Intensity Polar Plot



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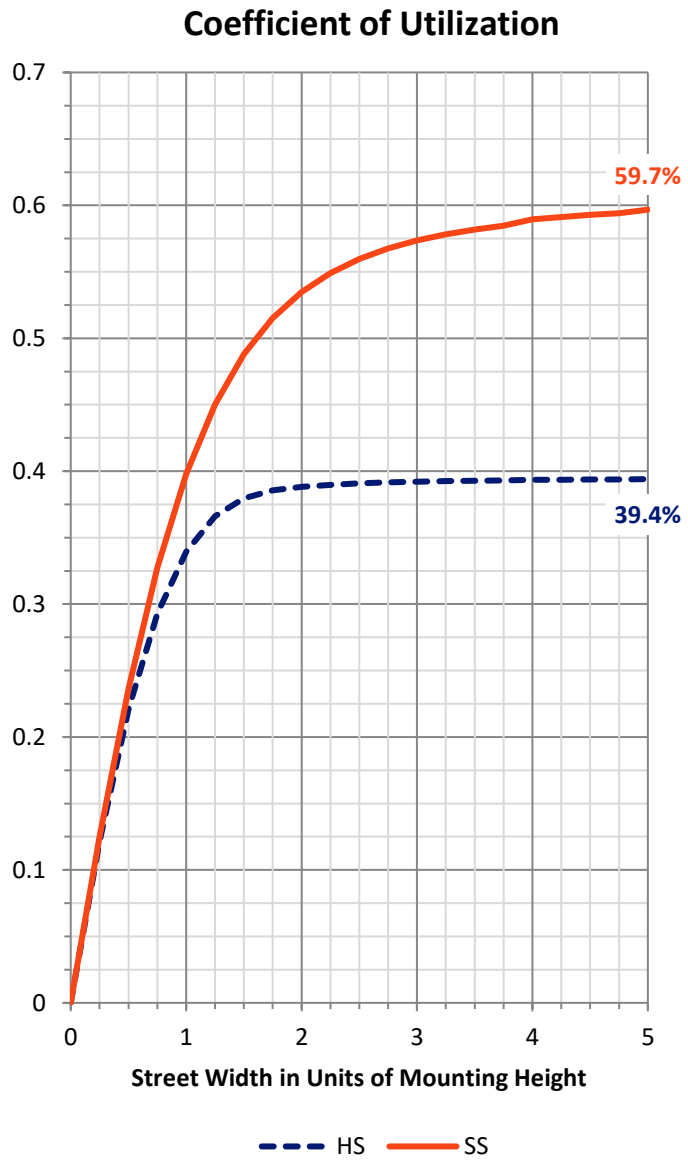
REPORT NUMBER: P821544
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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3157.3	4.1	3161.3
	% Fixture	39.6	0.1	39.7
Street Side	Lumens	4783.5	22.2	4805.7
	% Fixture	60.0	0.3	60.3
Total	Lumens	7940.7	26.3	7967.0
	% Fixture	99.7	0.3	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	220.5	2.8
10°-20°	645.8	8.1
20°-30°	1017.6	12.8
30°-40°	1295.0	16.3
40°-50°	1495.8	18.8
50°-60°	1464.6	18.4
60°-70°	1090.8	13.7
70°-80°	590.8	7.4
80°-90°	119.8	1.5
90°-100°	15.2	0.2
100°-110°	5.9	0.1
110°-120°	1.7	0.0
120°-130°	1.2	0.0
130°-140°	1.0	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°	7940.7	99.7
0°-180°	7967.0	100.0



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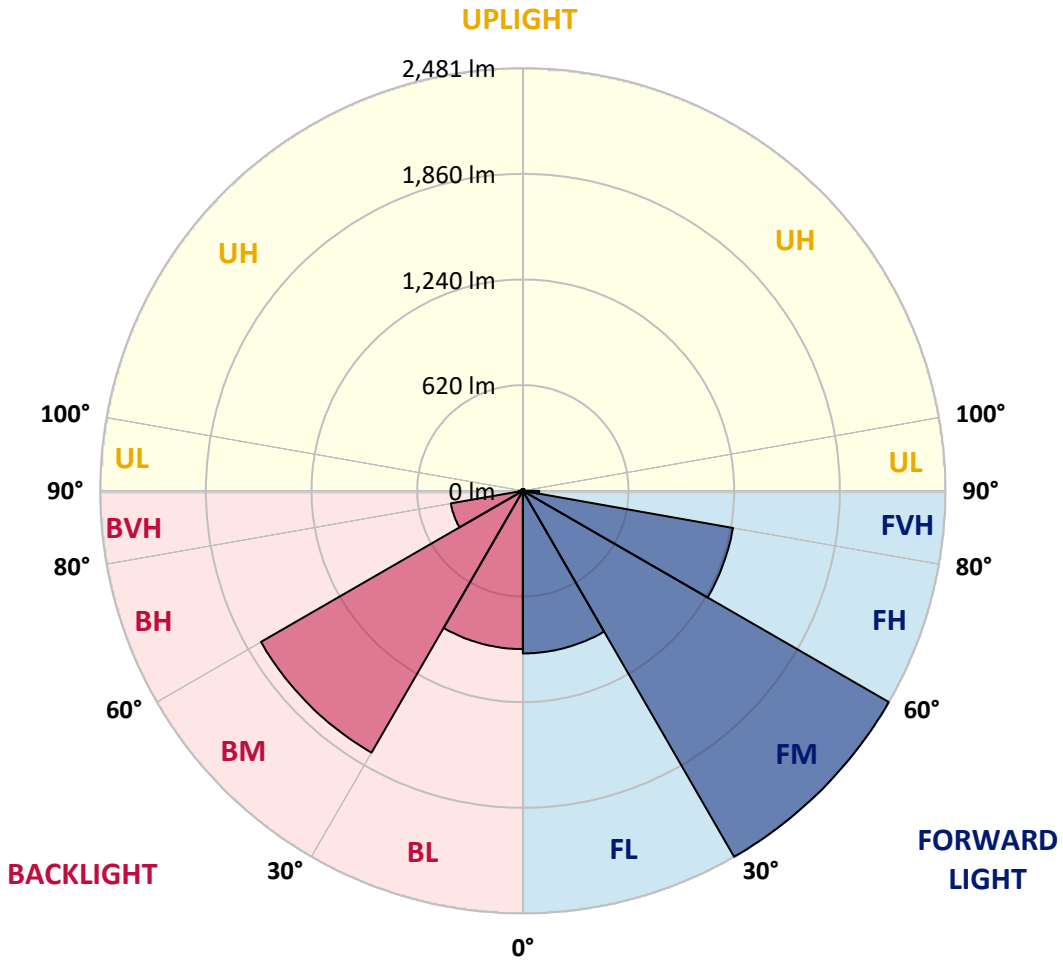
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	954.6	12.0			
FM	(30°-60°)	2480.6	31.1			
FH	(60°-80°)	1252.6	15.7			G1/1800
FVH	(80°-90°)	95.6	1.2			G1/100
BL	(0°-30°)	929.2	11.7	B2/1000		
BM	(30°-60°)	1774.8	22.3	B2/2500		
BH	(60°-80°)	429.0	5.4	B1/500		G1/500
BVH	(80°-90°)	24.1	0.3			G1/100
UL	(90°-100°)	15.2	0.2		U2/50	
UH	(100°-180°)	11.1	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°	2320.4	2320.4	2320.4	2320.4	2320.4	2320.4	2320.4	2320.4	2320.4	2320.4	2320.4
2.5°	2323.4	2326.4	2324.9	2324.9	2321.9	2323.4	2321.9	2321.9	2320.4	2318.9	2318.9
4°	2324.9	2327.9	2324.9	2324.9	2323.4	2323.4	2321.9	2318.9	2320.4	2316.0	2314.5
5°	2326.4	2327.9	2326.4	2326.4	2323.4	2321.9	2318.9	2318.9	2317.4	2314.5	2314.5
7.5°	2323.4	2324.9	2324.9	2323.4	2320.4	2317.4	2316.0	2314.5	2313.0	2308.5	2308.5
10°	2317.4	2320.4	2317.4	2317.4	2316.0	2313.0	2308.5	2307.0	2302.5	2299.5	2298.0
12.5°	2311.5	2313.0	2311.5	2311.5	2308.5	2304.0	2302.5	2299.5	2293.5	2289.0	2289.0
15°	2302.5	2305.5	2304.0	2302.5	2301.0	2296.5	2292.0	2287.5	2283.0	2278.5	2278.5
17.5°	2292.0	2293.5	2295.0	2293.5	2290.5	2287.5	2283.0	2277.0	2272.5	2268.0	2266.5
20°	2280.0	2283.0	2283.0	2283.0	2280.0	2277.0	2271.0	2265.0	2262.0	2256.0	2254.5
22.5°	2268.0	2271.0	2269.5	2271.0	2269.5	2265.0	2259.0	2253.0	2247.0	2242.5	2239.6
25°	2256.0	2256.0	2256.0	2256.0	2256.0	2250.0	2244.0	2236.6	2230.6	2223.1	2223.1
27.5°	2241.0	2241.0	2242.5	2242.5	2241.0	2236.6	2229.1	2220.1	2211.1	2203.6	2200.6
30°	2227.6	2226.1	2229.1	2232.1	2230.6	2226.1	2217.1	2206.6	2193.1	2182.6	2173.6
32.5°	2211.1	2215.6	2218.6	2224.6	2226.1	2220.1	2209.6	2196.1	2182.6	2163.2	2146.7
35°	2205.1	2205.1	2212.6	2221.6	2224.6	2221.6	2206.6	2191.6	2172.1	2143.7	2124.2
37.5°	2199.1	2200.6	2212.6	2226.1	2230.6	2230.6	2214.1	2194.6	2167.6	2127.2	2103.2
40°	2196.1	2199.1	2214.1	2233.6	2245.5	2244.0	2224.6	2200.6	2167.6	2115.2	2085.3
42.5°	2193.1	2199.1	2215.6	2242.5	2260.5	2259.0	2238.1	2206.6	2164.7	2100.2	2065.8
45°	2188.6	2193.1	2215.6	2250.0	2274.0	2278.5	2254.5	2214.1	2164.7	2086.8	2041.8
47.5°	2175.1	2176.6	2206.6	2247.0	2283.0	2289.0	2265.0	2217.1	2158.7	2064.3	2011.9
50°	2139.2	2143.7	2178.1	2232.1	2274.0	2283.0	2262.0	2209.6	2143.7	2026.8	1963.9
52.5°	2092.7	2092.7	2134.7	2194.6	2245.5	2260.5	2241.0	2182.6	2106.2	1971.4	1899.5
55°	2023.8	2034.3	2077.8	2140.7	2196.1	2217.1	2190.1	2133.2	2044.8	1901.0	1821.6
57.5°	1945.9	1948.9	1993.9	2068.8	2125.7	2139.2	2116.7	2049.3	1963.9	1817.1	1722.7
60°	1833.6	1839.6	1896.5	1962.4	2023.8	2041.8	2013.3	1945.9	1856.1	1709.2	1613.4
62.5°	1709.2	1718.2	1769.2	1836.6	1895.0	1923.5	1889.0	1818.6	1730.2	1580.4	1496.5
65°	1559.4	1562.4	1617.9	1694.3	1752.7	1763.2	1733.2	1664.3	1575.9	1432.1	1357.2
67.5°	1387.2	1402.2	1456.1	1513.0	1563.9	1575.9	1555.0	1475.6	1405.2	1277.8	1204.4
70°	1220.9	1213.4	1258.3	1315.3	1361.7	1372.2	1348.2	1274.8	1208.9	1089.1	1032.1
72.5°	1020.2	1014.2	1062.1	1105.5	1150.5	1144.5	1120.5	1062.1	1005.2	903.3	850.9
75°	817.9	811.9	849.4	886.8	909.3	912.3	895.8	852.4	791.0	711.6	671.1
77.5°	620.2	626.2	642.7	674.1	695.1	704.1	675.6	632.2	593.2	531.8	501.8
80°	441.9	443.4	449.4	471.9	486.9	486.9	473.4	438.9	395.5	352.0	337.1
82.5°	278.6	284.6	284.6	307.1	307.1	295.1	289.1	266.6	244.2	209.7	188.8
85°	152.8	149.8	158.8	160.3	158.8	149.8	140.8	127.3	112.4	88.4	79.4
87.5°	67.4	65.9	65.9	65.9	64.4	58.4	49.4	38.9	27.0	16.5	12.0
90°	52.4	52.4	50.9	47.9	43.4	38.9	31.5	24.0	15.0	6.0	3.0
92.5°	47.9	47.9	46.4	44.9	40.4	36.0	28.5	21.0	13.5	6.0	3.0
95°	41.9	40.4	40.4	37.5	34.5	30.0	25.5	18.0	12.0	4.5	3.0
97.5°	34.5	33.0	33.0	31.5	28.5	24.0	21.0	15.0	10.5	4.5	3.0
100°	25.5	27.0	25.5	24.0	22.5	19.5	16.5	12.0	7.5	3.0	3.0
102.5°	19.5	19.5	18.0	18.0	16.5	15.0	12.0	9.0	6.0	3.0	1.5
105°	13.5	13.5	13.5	12.0	12.0	10.5	9.0	6.0	4.5	3.0	1.5
107.5°	7.5	7.5	7.5	7.5	7.5	7.5	6.0	4.5	3.0	1.5	1.5

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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
110°	4.5	*4.5*	4.5	4.5	4.5	4.5	3.0	3.0	1.5	1.5	1.5
112.5°	1.5	*1.5*	3.0	3.0	3.0	3.0	3.0	1.5	1.5	1.5	1.5
115°	1.5	*1.5*	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
117.5°	0.0	*0.0*	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
120°	0.0	*0.0*	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
122.5°	0.0	*0.0*	0.0	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
125°	0.0	*0.0*	0.0	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
127.5°	0.0	*0.0*	0.0	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
130°	0.0	*0.0*	0.0	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
132.5°	0.0	*0.0*	0.0	0.0	1.5	1.5	1.5	1.5	1.5	1.5	1.5
135°	0.0	*0.0*	0.0	0.0	1.5	1.5	1.5	1.5	1.5	1.5	1.5
137.5°	0.0	*0.0*	0.0	0.0	1.5	1.5	1.5	1.5	1.5	1.5	1.5
140°	0.0	*0.0*	0.0	0.0	1.5	1.5	1.5	1.5	1.5	1.5	1.5
142.5°	0.0	*0.0*	0.0	0.0	0.0	1.5	1.5	1.5	1.5	1.5	1.5
145°	1.5	*1.5*	0.0	0.0	0.0	1.5	1.5	1.5	1.5	1.5	1.5
147.5°	1.5	*1.5*	0.0	0.0	0.0	1.5	1.5	1.5	1.5	1.5	1.5
150°	1.5	*0.0*	0.0	0.0	0.0	1.5	1.5	1.5	1.5	1.5	1.5
152.5°	0.0	*0.0*	0.0	0.0	0.0	1.5	1.5	1.5	1.5	1.5	1.5
155°	0.0	*0.0*	0.0	0.0	0.0	1.5	1.5	1.5	1.5	1.5	1.5
157.5°	0.0	*0.0*	0.0	0.0	0.0	1.5	1.5	1.5	1.5	1.5	1.5
160°	0.0	*0.0*	0.0	0.0	0.0	1.5	1.5	1.5	1.5	1.5	1.5
162.5°	0.0	*0.0*	0.0	0.0	0.0	1.5	1.5	1.5	1.5	1.5	1.5
165°	0.0	*0.0*	0.0	0.0	0.0	1.5	1.5	1.5	1.5	1.5	1.5
167.5°	0.0	*0.0*	0.0	0.0	0.0	1.5	1.5	1.5	1.5	1.5	1.5
170°	0.0	*0.0*	0.0	0.0	0.0	1.5	1.5	1.5	1.5	1.5	1.5
172.5°	0.0	*0.0*	0.0	0.0	1.5	1.5	1.5	1.5	1.5	1.5	1.5
175°	0.0	*0.0*	0.0	0.0	1.5	1.5	1.5	1.5	1.5	1.5	1.5
177.5°	0.0	*0.0*	0.0	0.0	1.5	1.5	1.5	1.5	1.5	1.5	1.5
180°	1.5	*1.5*	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5

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CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2320.4	2320.4	2320.4	2320.4	2320.4	2320.4	2320.4	2320.4	2320.4	2320.4
2.5°	2317.4	2313.0	2316.0	2314.5	2316.0	2313.0	2313.0	2313.0	2314.5	2311.5
4°	*2316.0*	*2313.0*	*2313.0*	*2313.0*	*2313.0*	*2310.0*	*2310.0*	*2310.0*	*2308.5*	*2310.0*
5°	2313.0	2311.5	2310.0	2308.5	2310.0	2307.0	2305.5	2305.5	2305.5	2307.0
7.5°	2307.0	2302.5	2302.5	2298.0	2299.5	2298.0	2296.5	2298.0	2296.5	2296.5
10°	2296.5	2293.5	2292.0	2289.0	2289.0	2286.0	2284.5	2284.5	2284.5	2283.0
12.5°	2286.0	2283.0	2281.5	2278.5	2277.0	2274.0	2272.5	2274.0	2271.0	2271.0
15°	2274.0	2271.0	2269.5	2269.5	2266.5	2263.5	2262.0	2259.0	2259.0	2259.0
17.5°	2263.5	2260.5	2262.0	2259.0	2257.5	2254.5	2254.5	2248.5	2248.5	2247.0
20°	2253.0	2250.0	2250.0	2248.5	2248.5	2245.5	2241.0	2238.1	2236.6	2236.6
22.5°	2239.6	2235.1	2227.6	2217.1	2211.1	2206.6	2205.1	2200.6	2199.1	2196.1
25°	2218.6	2206.6	2190.1	2172.1	2154.2	2145.2	2142.2	2136.2	2136.2	2136.2
27.5°	2193.1	2170.6	2148.2	2121.2	2094.2	2076.3	2064.3	2058.3	2055.3	2055.3
30°	2160.2	2131.7	2100.2	2065.8	2035.8	2002.9	1981.9	1969.9	1963.9	1965.4
32.5°	2130.2	2094.2	2058.3	2014.8	1974.4	1935.5	1899.5	1881.5	1874.0	1871.0
35°	2100.2	2059.8	2016.3	1969.9	1917.5	1860.6	1812.6	1785.6	1770.7	1772.2
37.5°	2077.8	2029.8	1981.9	1925.0	1865.0	1796.1	1734.7	1691.3	1673.3	1676.3
40°	2053.8	1999.9	1947.4	1881.5	1811.1	1728.7	1649.3	1590.9	1569.9	1565.4
42.5°	2031.3	1968.4	1908.5	1838.1	1749.7	1656.8	1559.4	1490.5	1459.1	1454.6
45°	2002.9	1932.5	1868.0	1787.1	1689.8	1574.4	1460.6	1370.7	1337.7	1324.3
47.5°	1965.4	1887.5	1815.6	1722.7	1616.4	1486.0	1343.7	1232.9	1190.9	1180.4
50°	1910.0	1820.1	1746.7	1641.8	1513.0	1369.2	1210.4	1074.1	1018.7	1011.2
52.5°	1836.6	1745.2	1662.8	1543.0	1385.7	1216.4	1036.6	895.8	831.4	826.9
55°	1748.2	1649.3	1559.4	1424.6	1240.4	1044.1	856.9	678.6	615.7	608.2
57.5°	1644.8	1543.0	1445.6	1279.3	1066.6	847.9	630.7	459.9	400.0	385.0
60°	1531.0	1426.1	1316.8	1114.5	832.9	600.7	382.0	244.2	199.2	184.3
62.5°	1420.1	1306.3	1190.9	918.3	570.7	343.0	173.8	70.4	44.9	43.4
65°	1289.8	1181.9	1063.6	740.0	361.0	154.3	50.9	1.5	0.0	0.0
67.5°	1138.5	1047.1	942.3	662.1	319.1	134.8	43.4	1.5	0.0	0.0
70°	976.7	904.8	811.9	569.3	274.1	113.9	37.5	0.0	0.0	0.0
72.5°	805.9	744.5	675.6	473.4	227.7	94.4	30.0	0.0	0.0	0.0
75°	632.2	593.2	531.8	374.5	176.8	71.9	22.5	0.0	0.0	0.0
77.5°	468.9	437.4	392.5	275.6	133.3	52.4	16.5	0.0	0.0	0.0
80°	316.1	292.1	266.6	187.3	89.9	34.5	10.5	0.0	0.0	0.0
82.5°	184.3	166.3	149.8	106.4	49.4	19.5	4.5	0.0	0.0	0.0
85°	74.9	68.9	65.9	44.9	19.5	6.0	1.5	0.0	0.0	0.0
87.5°	9.0	7.5	7.5	4.5	1.5	0.0	0.0	0.0	0.0	0.0
90°	1.5	1.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
92.5°	1.5	1.5	1.5	1.5	1.5	0.0	0.0	0.0	0.0	0.0
95°	1.5	1.5	1.5	1.5	1.5	1.5	0.0	0.0	0.0	0.0
97.5°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	0.0
100°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
102.5°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
105°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
107.5°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5

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

Scaled Data Report

REPORT NUMBER: P821544
CATALOG NUMBER: TT-D5-740-12VDC-CQ-HSS

CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
110°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
112.5°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
115°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
117.5°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
120°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
122.5°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
125°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
127.5°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
130°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
132.5°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
135°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
137.5°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	0.0	0.0
140°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	0.0	0.0
142.5°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	0.0	0.0	0.0
145°	1.5	1.5	1.5	1.5	1.5	1.5	0.0	0.0	0.0	0.0
147.5°	1.5	1.5	1.5	1.5	1.5	1.5	0.0	0.0	0.0	1.5
150°	1.5	1.5	1.5	1.5	1.5	0.0	0.0	0.0	0.0	0.0
152.5°	1.5	1.5	1.5	1.5	1.5	0.0	0.0	0.0	0.0	0.0
155°	1.5	1.5	1.5	1.5	1.5	0.0	0.0	0.0	0.0	0.0
157.5°	1.5	1.5	1.5	1.5	1.5	0.0	0.0	0.0	0.0	0.0
160°	1.5	1.5	1.5	1.5	1.5	0.0	0.0	0.0	0.0	0.0
162.5°	1.5	1.5	1.5	1.5	1.5	0.0	0.0	0.0	0.0	0.0
165°	1.5	1.5	1.5	1.5	1.5	0.0	0.0	0.0	0.0	0.0
167.5°	1.5	1.5	1.5	1.5	1.5	0.0	0.0	0.0	0.0	0.0
170°	1.5	1.5	1.5	1.5	1.5	0.0	0.0	0.0	0.0	0.0
172.5°	1.5	1.5	1.5	1.5	1.5	0.0	0.0	0.0	0.0	0.0
175°	1.5	1.5	1.5	1.5	1.5	0.0	0.0	0.0	0.0	0.0
177.5°	1.5	1.5	1.5	1.5	1.5	0.0	0.0	0.0	0.0	0.0
180°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5

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

Streetworks

Report Number: SP1-2407-176-5

Test Date: 09/24/2024

Luminaire Tested: MEM2-HTN-VA-30-740-U-WQ

Data in this report applies to families of products including MEM2-HTN-VA-30-740-U-WQ

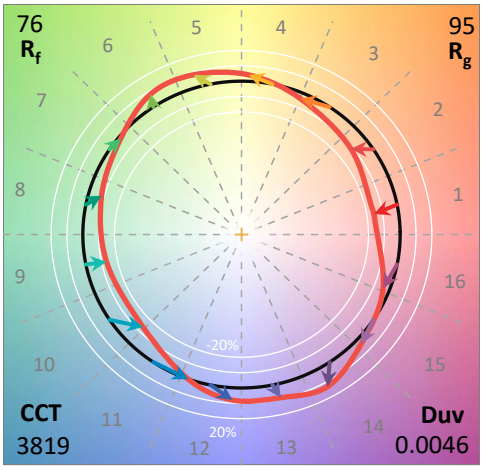
Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

Test Information

Test Method:	LM-79-2019
Report Number:	SP1-2407-176-5
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-30-740-U-WQ**
Description:	EPIC MODERN VISUAL COMFORT 30W WAVESTREAM WIDE

Spectral Parameters

CCT (K):	3819	CRI (Ra):	72.9		
CIE u':	0.2261	R1:	70.1	R9:	-21.5
CIE v':	0.5108	R2:	78.4	R10:	48.5
Duv:	0.0046	R3:	85.0	R11:	68.4
CIE x:	0.3926	R4:	72.9	R12:	39.0
CIE y:	0.3942	R5:	69.1	R13:	71.1
CIE z:	0.2132	R6:	69.2	R14:	91.3
Peak Wavelength (nm):	450	R7:	82.8	R15:	63.2
Dominant Wavelength (nm):	577	R8:	55.4		
Purity:	36.15483				
Rf:	75.6				
Rg:	94.8				



Test Conditions

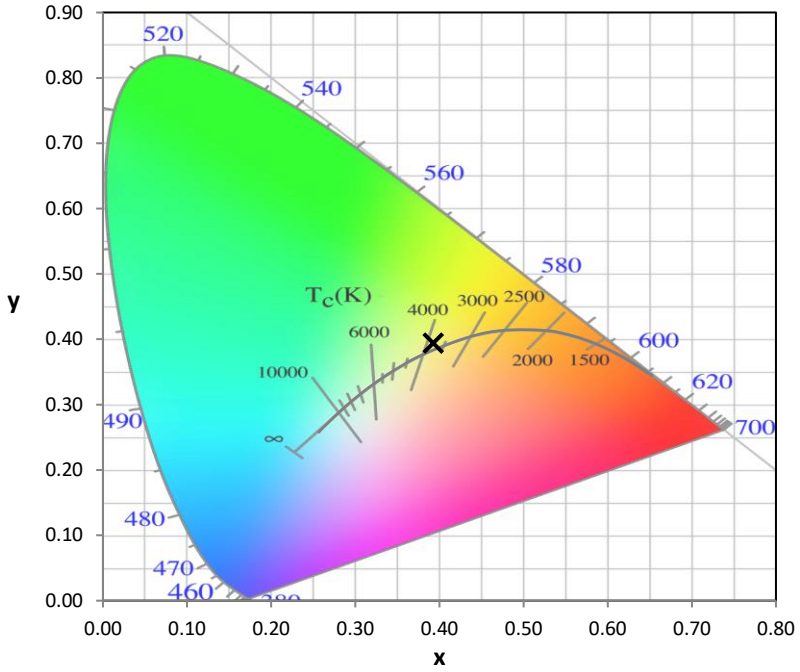
Stabilization Time:	30M
Operation Time:	1H 30M
Sphere Temperature (°C):	25.2

REPORT NUMBER: SP1-2407-176-5

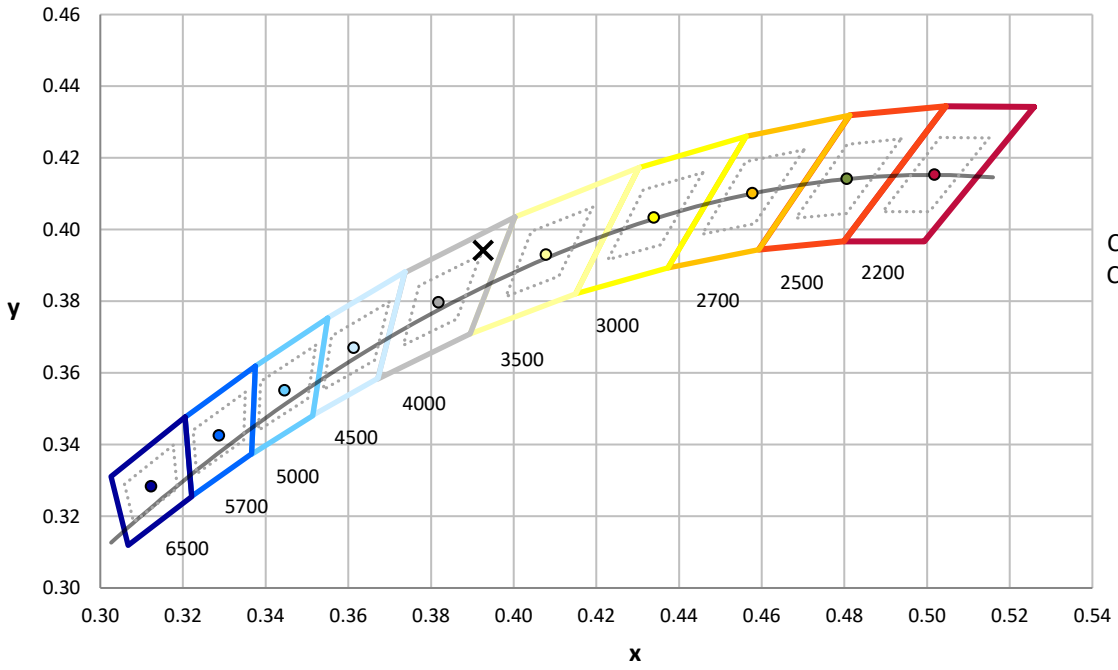
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

REPORT NUMBER: SP1-2407-176-5

CIE 1931 Chromaticity Diagram



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

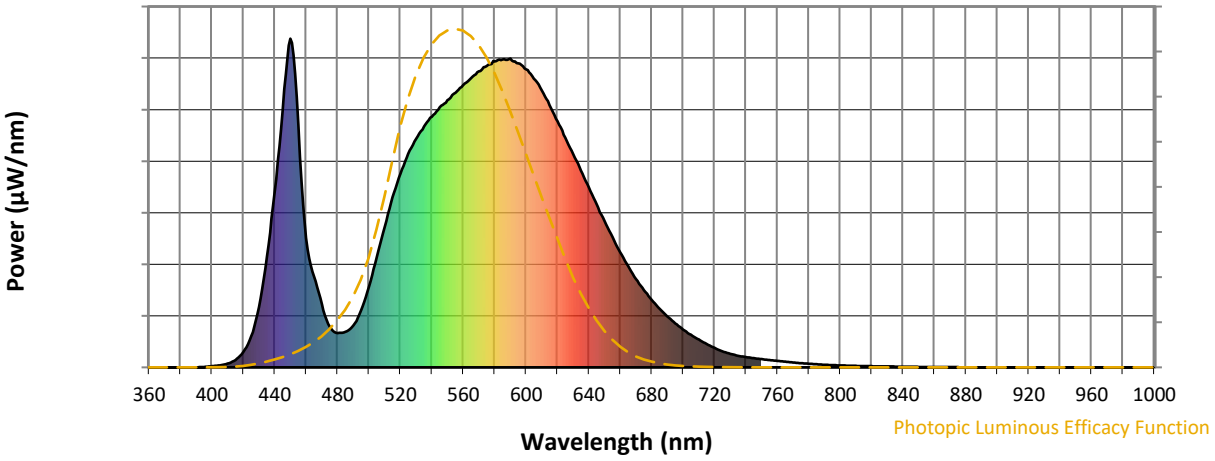


CCT = 3819K
CIE x = 0.3926
CIE y = 0.3942
Duv = 0.0046

Point lies inside the ANSI 4000K 7-step quadrangle

REPORT NUMBER: SP1-2407-176-5

Photopic Flux vs. Wavelength

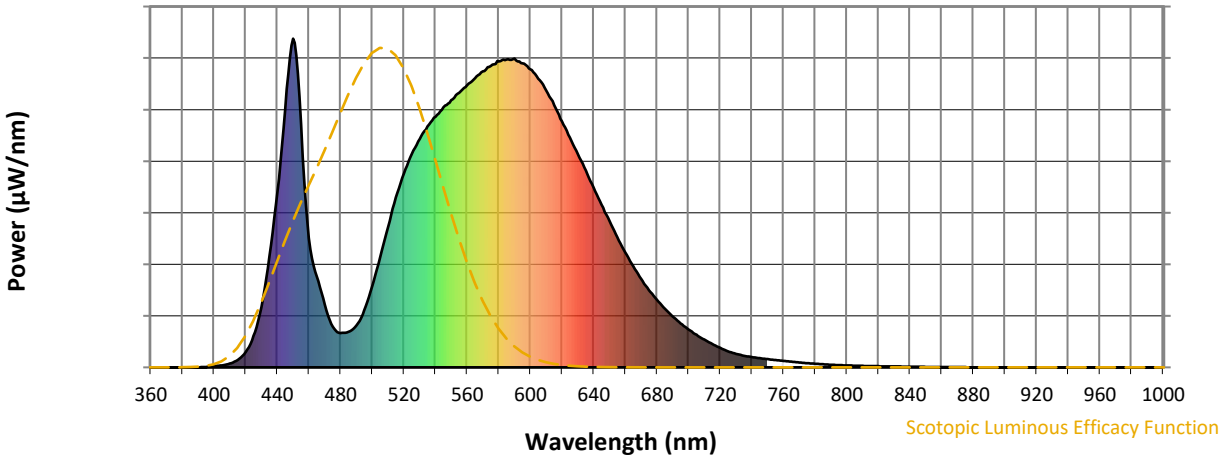


Photopic Lumens: NR

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	127	NR	620	748	NR	750	25	NR	880	0	NR
365	0	NR	495	173	NR	625	699	NR	755	22	NR	885	0	NR
370	0	NR	500	246	NR	630	648	NR	760	20	NR	890	0	NR
375	0	NR	505	335	NR	635	599	NR	765	17	NR	895	0	NR
380	0	NR	510	427	NR	640	547	NR	770	15	NR	900	0	NR
385	0	NR	515	517	NR	645	495	NR	775	13	NR	905	0	NR
390	0	NR	520	589	NR	650	445	NR	780	11	NR	910	0	NR
395	1	NR	525	649	NR	655	396	NR	785	9	NR	915	0	NR
400	4	NR	530	695	NR	660	349	NR	790	8	NR	920	0	NR
405	6	NR	535	733	NR	665	308	NR	795	7	NR	925	0	NR
410	11	NR	540	763	NR	670	269	NR	800	6	NR	930	0	NR
415	23	NR	545	792	NR	675	235	NR	805	5	NR	935	0	NR
420	46	NR	550	813	NR	680	205	NR	810	5	NR	940	0	NR
425	95	NR	555	835	NR	685	178	NR	815	4	NR	945	0	NR
430	183	NR	560	859	NR	690	155	NR	820	3	NR	950	0	NR
435	338	NR	565	880	NR	695	134	NR	825	3	NR	955	0	NR
440	534	NR	570	900	NR	700	115	NR	830	3	NR	960	0	NR
445	782	NR	575	918	NR	705	99	NR	835	2	NR	965	0	NR
450	1000	NR	580	931	NR	710	84	NR	840	2	NR	970	0	NR
455	739	NR	585	937	NR	715	71	NR	845	2	NR	975	0	NR
460	393	NR	590	939	NR	720	59	NR	850	1	NR	980	0	NR
465	276	NR	595	925	NR	725	49	NR	855	1	NR	985	0	NR
470	190	NR	600	907	NR	730	41	NR	860	1	NR	990	0	NR
475	123	NR	605	878	NR	735	35	NR	865	1	NR	995	0	NR
480	105	NR	610	842	NR	740	31	NR	870	1	NR	1000	0	NR
485	108	NR	615	797	NR	745	28	NR	875	1	NR			

REPORT NUMBER: SP1-2407-176-5

Scotopic Flux vs. Wavelength

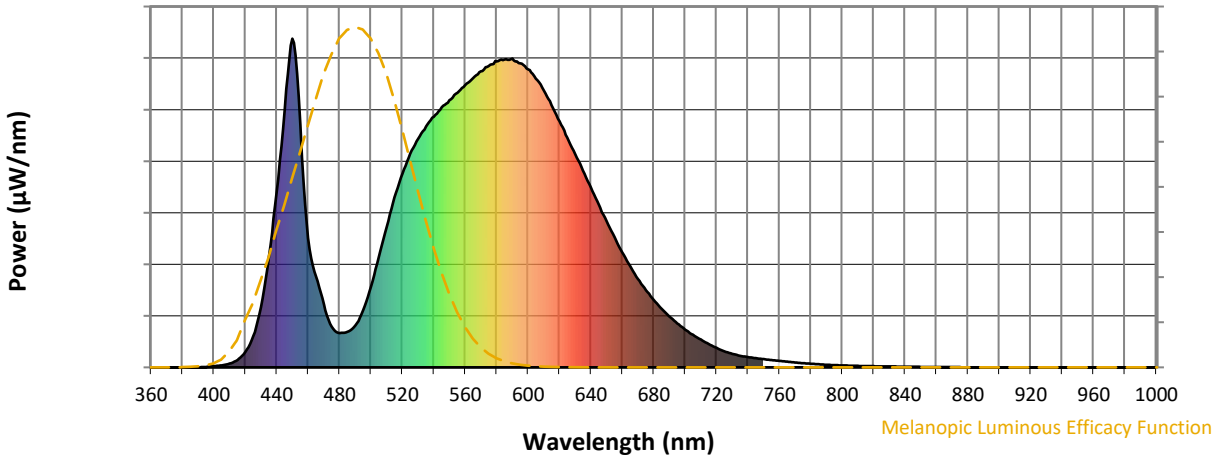


Scotopic Lumens: NR **S/P: 1.45**

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	127	NR	620	748	NR	750	25	NR	880	0	NR
365	0	NR	495	173	NR	625	699	NR	755	22	NR	885	0	NR
370	0	NR	500	246	NR	630	648	NR	760	20	NR	890	0	NR
375	0	NR	505	335	NR	635	599	NR	765	17	NR	895	0	NR
380	0	NR	510	427	NR	640	547	NR	770	15	NR	900	0	NR
385	0	NR	515	517	NR	645	495	NR	775	13	NR	905	0	NR
390	0	NR	520	589	NR	650	445	NR	780	11	NR	910	0	NR
395	1	NR	525	649	NR	655	396	NR	785	9	NR	915	0	NR
400	4	NR	530	695	NR	660	349	NR	790	8	NR	920	0	NR
405	6	NR	535	733	NR	665	308	NR	795	7	NR	925	0	NR
410	11	NR	540	763	NR	670	269	NR	800	6	NR	930	0	NR
415	23	NR	545	792	NR	675	235	NR	805	5	NR	935	0	NR
420	46	NR	550	813	NR	680	205	NR	810	5	NR	940	0	NR
425	95	NR	555	835	NR	685	178	NR	815	4	NR	945	0	NR
430	183	NR	560	859	NR	690	155	NR	820	3	NR	950	0	NR
435	338	NR	565	880	NR	695	134	NR	825	3	NR	955	0	NR
440	534	NR	570	900	NR	700	115	NR	830	3	NR	960	0	NR
445	782	NR	575	918	NR	705	99	NR	835	2	NR	965	0	NR
450	1000	NR	580	931	NR	710	84	NR	840	2	NR	970	0	NR
455	739	NR	585	937	NR	715	71	NR	845	2	NR	975	0	NR
460	393	NR	590	939	NR	720	59	NR	850	1	NR	980	0	NR
465	276	NR	595	925	NR	725	49	NR	855	1	NR	985	0	NR
470	190	NR	600	907	NR	730	41	NR	860	1	NR	990	0	NR
475	123	NR	605	878	NR	735	35	NR	865	1	NR	995	0	NR
480	105	NR	610	842	NR	740	31	NR	870	1	NR	1000	0	NR
485	108	NR	615	797	NR	745	28	NR	875	1	NR			

REPORT NUMBER: SP1-2407-176-5

Melanopic Flux vs. Wavelength



Melanopic Lumens: NR **M/P: 2.76**

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	127	NR	620	748	NR	750	25	NR	880	0	NR
365	0	NR	495	173	NR	625	699	NR	755	22	NR	885	0	NR
370	0	NR	500	246	NR	630	648	NR	760	20	NR	890	0	NR
375	0	NR	505	335	NR	635	599	NR	765	17	NR	895	0	NR
380	0	NR	510	427	NR	640	547	NR	770	15	NR	900	0	NR
385	0	NR	515	517	NR	645	495	NR	775	13	NR	905	0	NR
390	0	NR	520	589	NR	650	445	NR	780	11	NR	910	0	NR
395	1	NR	525	649	NR	655	396	NR	785	9	NR	915	0	NR
400	4	NR	530	695	NR	660	349	NR	790	8	NR	920	0	NR
405	6	NR	535	733	NR	665	308	NR	795	7	NR	925	0	NR
410	11	NR	540	763	NR	670	269	NR	800	6	NR	930	0	NR
415	23	NR	545	792	NR	675	235	NR	805	5	NR	935	0	NR
420	46	NR	550	813	NR	680	205	NR	810	5	NR	940	0	NR
425	95	NR	555	835	NR	685	178	NR	815	4	NR	945	0	NR
430	183	NR	560	859	NR	690	155	NR	820	3	NR	950	0	NR
435	338	NR	565	880	NR	695	134	NR	825	3	NR	955	0	NR
440	534	NR	570	900	NR	700	115	NR	830	3	NR	960	0	NR
445	782	NR	575	918	NR	705	99	NR	835	2	NR	965	0	NR
450	1000	NR	580	931	NR	710	84	NR	840	2	NR	970	0	NR
455	739	NR	585	937	NR	715	71	NR	845	2	NR	975	0	NR
460	393	NR	590	939	NR	720	59	NR	850	1	NR	980	0	NR
465	276	NR	595	925	NR	725	49	NR	855	1	NR	985	0	NR
470	190	NR	600	907	NR	730	41	NR	860	1	NR	990	0	NR
475	123	NR	605	878	NR	735	35	NR	865	1	NR	995	0	NR
480	105	NR	610	842	NR	740	31	NR	870	1	NR	1000	0	NR
485	108	NR	615	797	NR	745	28	NR	875	1	NR			

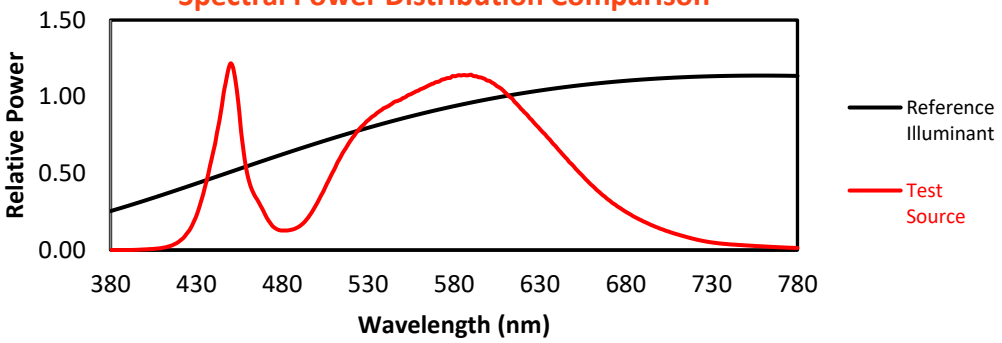
REPORT NUMBER: SP1-2407-176-5

TM-30-18

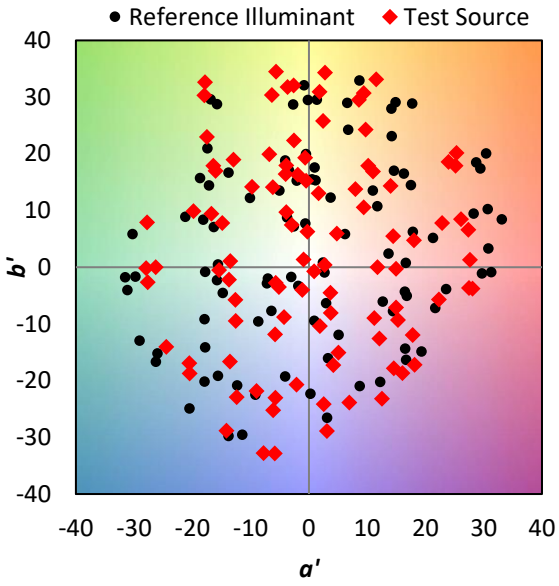
Summary

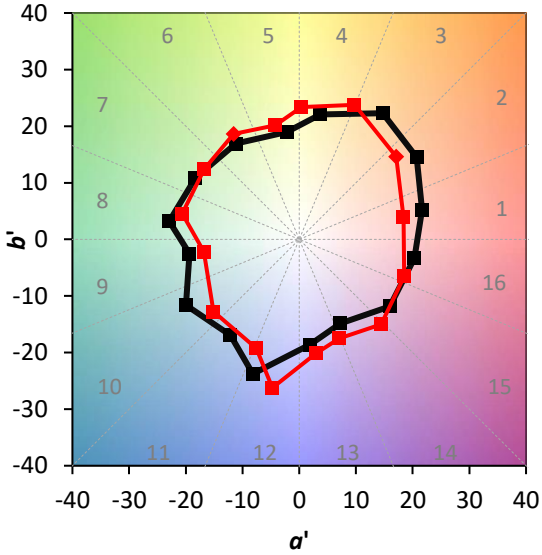
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R_g = 94.8
CIE R_a = 72.9
R_9 = -21.5

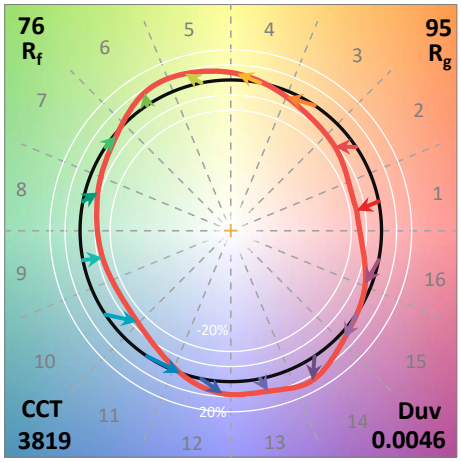
Spectral Power Distribution Comparison

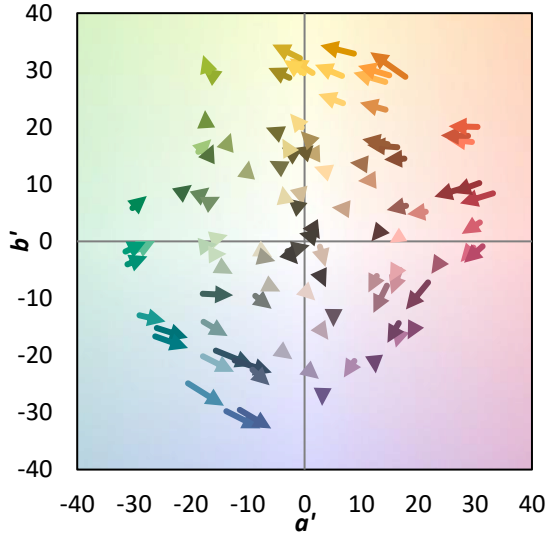


Color Vector Graphics







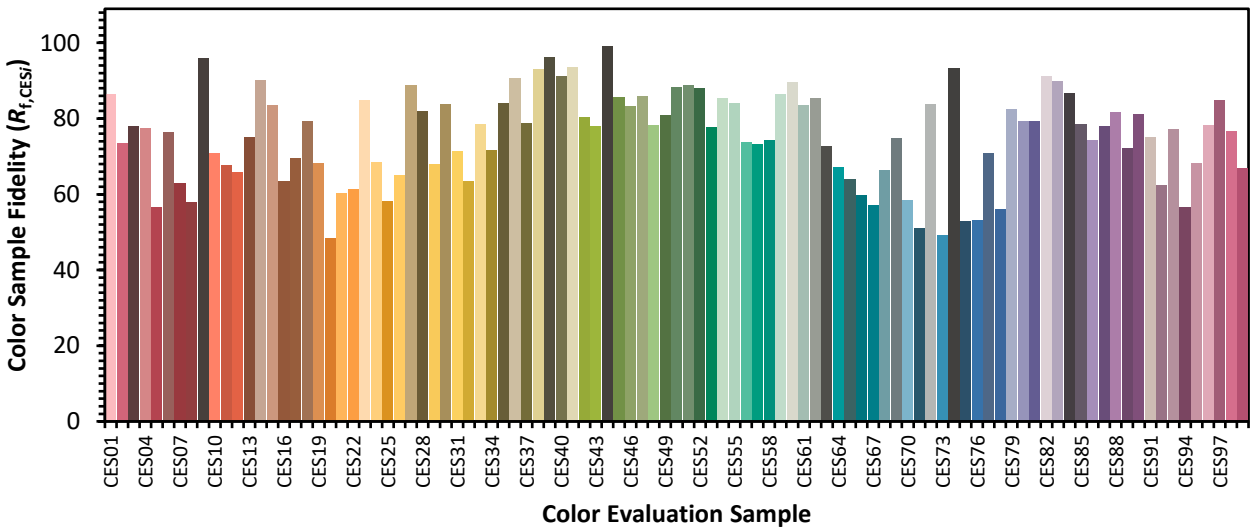


REPORT NUMBER: SP1-2407-176-5

TM-30-18

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

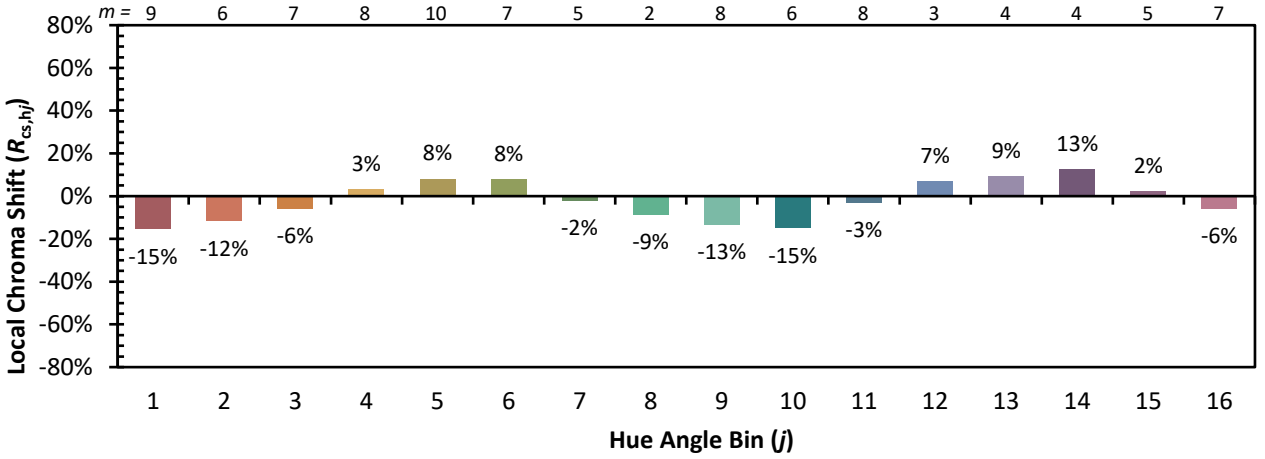
CES01 = 85	CES26 = 65	CES51 = 89	CES76 = 53
CES02 = 61	CES27 = 89	CES52 = 88	CES77 = 71
CES03 = 30	CES28 = 82	CES53 = 78	CES78 = 56
CES04 = 70	CES29 = 68	CES54 = 85	CES79 = 83
CES05 = 48	CES30 = 84	CES55 = 84	CES80 = 79
CES06 = 50	CES31 = 71	CES56 = 74	CES81 = 79
CES07 = 40	CES32 = 63	CES57 = 73	CES82 = 91
CES08 = 39	CES33 = 79	CES58 = 74	CES83 = 90
CES09 = 29	CES34 = 72	CES59 = 86	CES84 = 87
CES10 = 74	CES35 = 84	CES60 = 90	CES85 = 78
CES11 = 57	CES36 = 91	CES61 = 84	CES86 = 74
CES12 = 63	CES37 = 79	CES62 = 85	CES87 = 78
CES13 = 42	CES38 = 93	CES63 = 73	CES88 = 82
CES14 = 74	CES39 = 96	CES64 = 67	CES89 = 72
CES15 = 71	CES40 = 91	CES65 = 64	CES90 = 81
CES16 = 47	CES41 = 93	CES66 = 60	CES91 = 75
CES17 = 49	CES42 = 80	CES67 = 57	CES92 = 62
CES18 = 56	CES43 = 78	CES68 = 66	CES93 = 77
CES19 = 72	CES44 = 99	CES69 = 75	CES94 = 57
CES20 = 65	CES45 = 86	CES70 = 58	CES95 = 68
CES21 = 86	CES46 = 83	CES71 = 51	CES96 = 78
CES22 = 78	CES47 = 86	CES72 = 84	CES97 = 85
CES23 = 92	CES48 = 78	CES73 = 49	CES98 = 77
CES24 = 91	CES49 = 81	CES74 = 93	CES99 = 67
CES25 = 72	CES50 = 88	CES75 = 53	

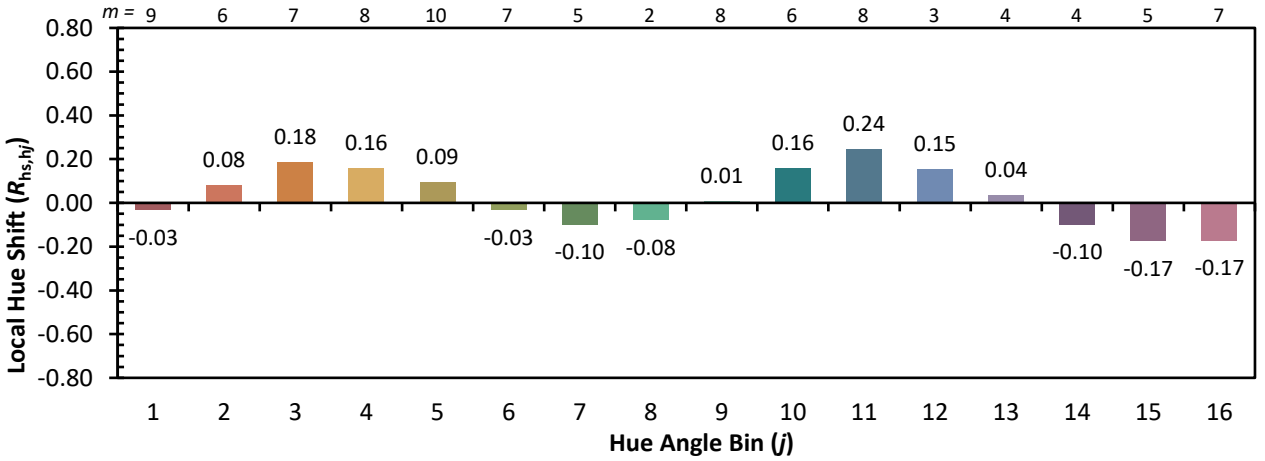


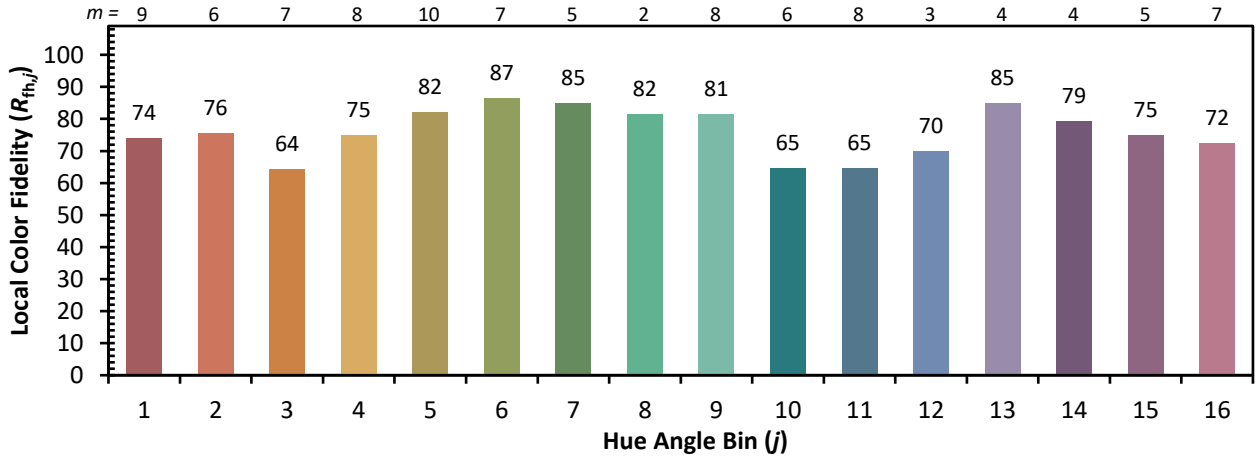
REPORT NUMBER: SP1-2407-176-5

TM-30-18

Color Rendition by Hue-Angle Bin



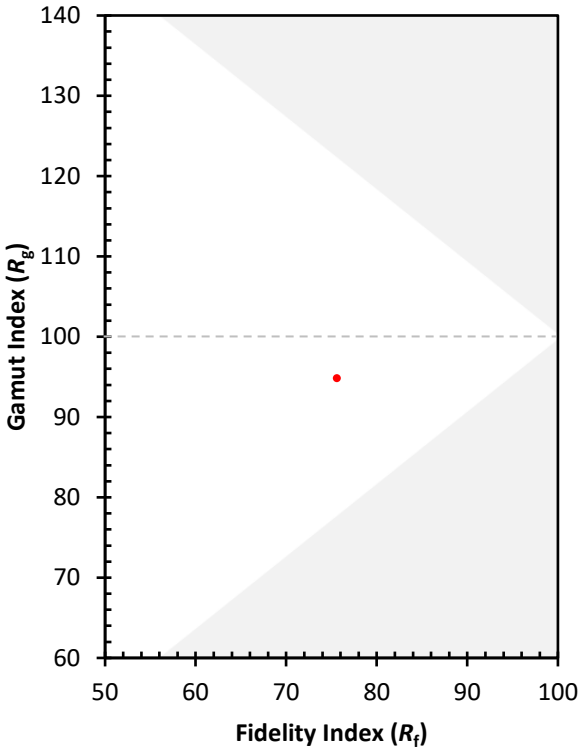


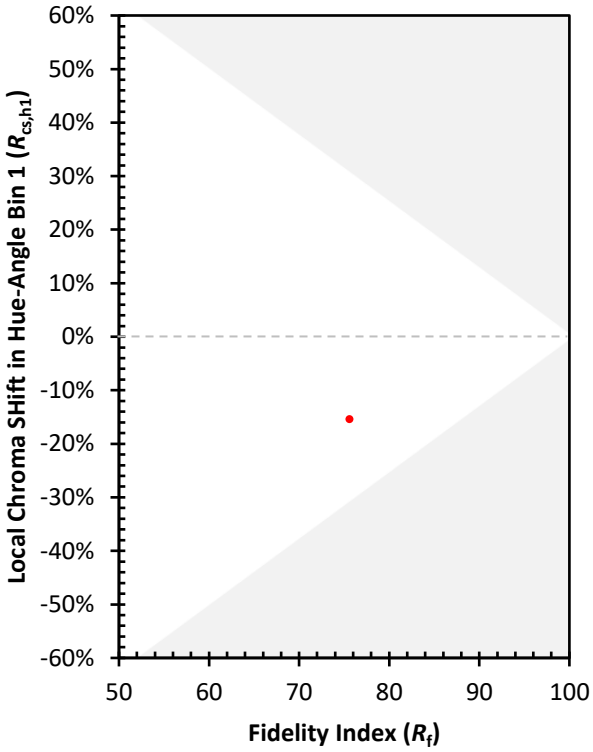


REPORT NUMBER: SP1-2407-176-5

TM-30-18

Measure Comparisons





(END OF REPORT)