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: P1449793

Luminaire Tested: **AXCS4ARL**

Issue Date: 5/12/2026

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:	P1449793
	TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2310-196-6)
Test Lab:	INNOVATION CENTER
Issue Date:	5/12/2026
Manufacturer:	COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line:	LUMARK
Catalog Number:	AXCS4ARL
Description:	4A AXCENT LED REFRACTIVE LENS WALLPACK WITH 4000K 70CRI LEDS
Light Source:	-
Ballast/Driver:	-

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	5832 lumens
Efficiency:	N/A
Efficacy:	155.1 lumens/watt
Luminous Opening:	Rectangular w/ Sides (W: 0.17' x L: 0.5' x H: 0.17')
IES Classification:	Type IV - Short
BUG Rating:	B1 - U4 - G3

Input Watts (W):	37.6
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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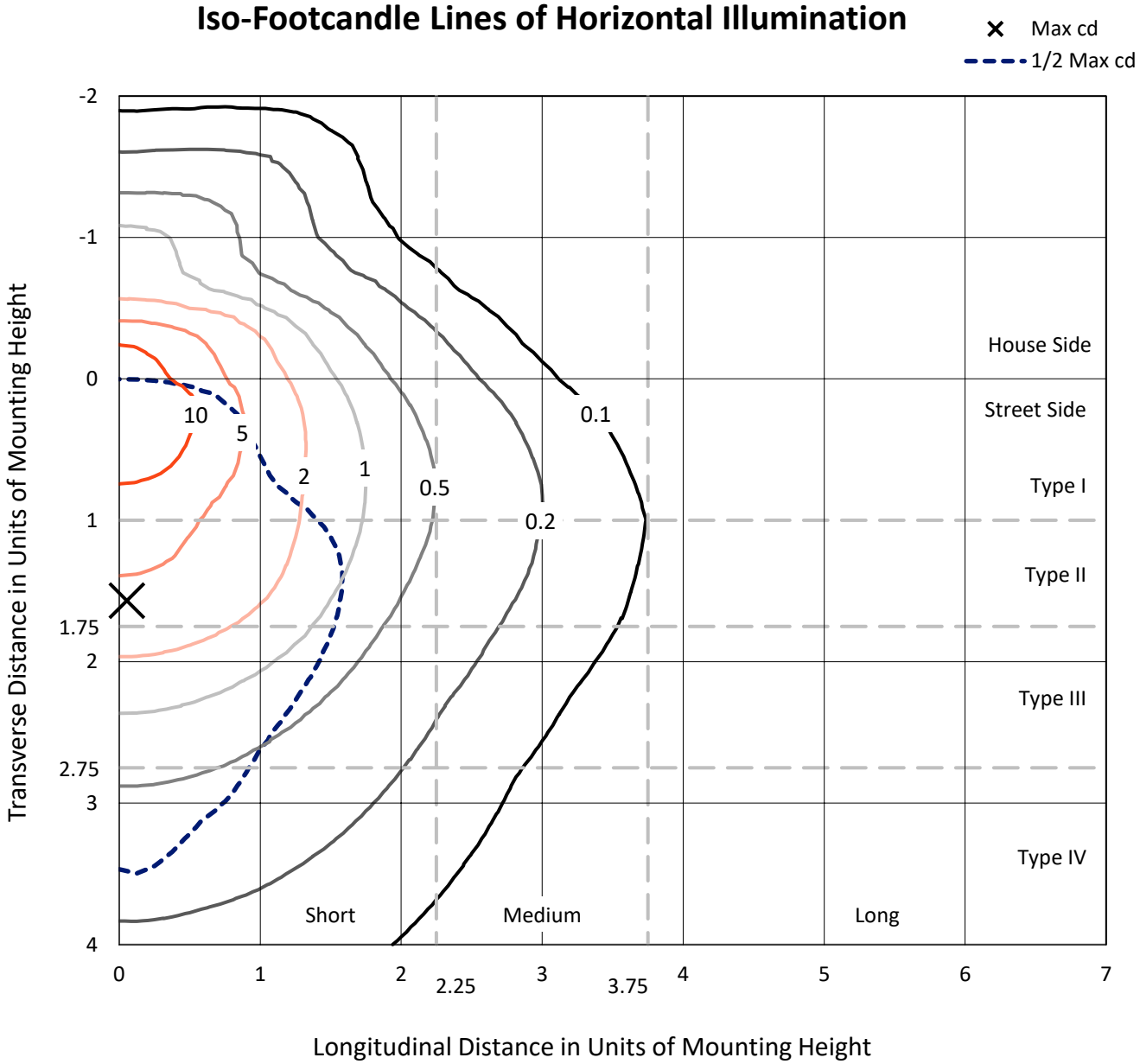
Iso-Footcandle Lines of Horizontal Illumination



Based on 10 foot mounting height. Maximum calculated value = 17.1 fc
Type IV - Short - N/A

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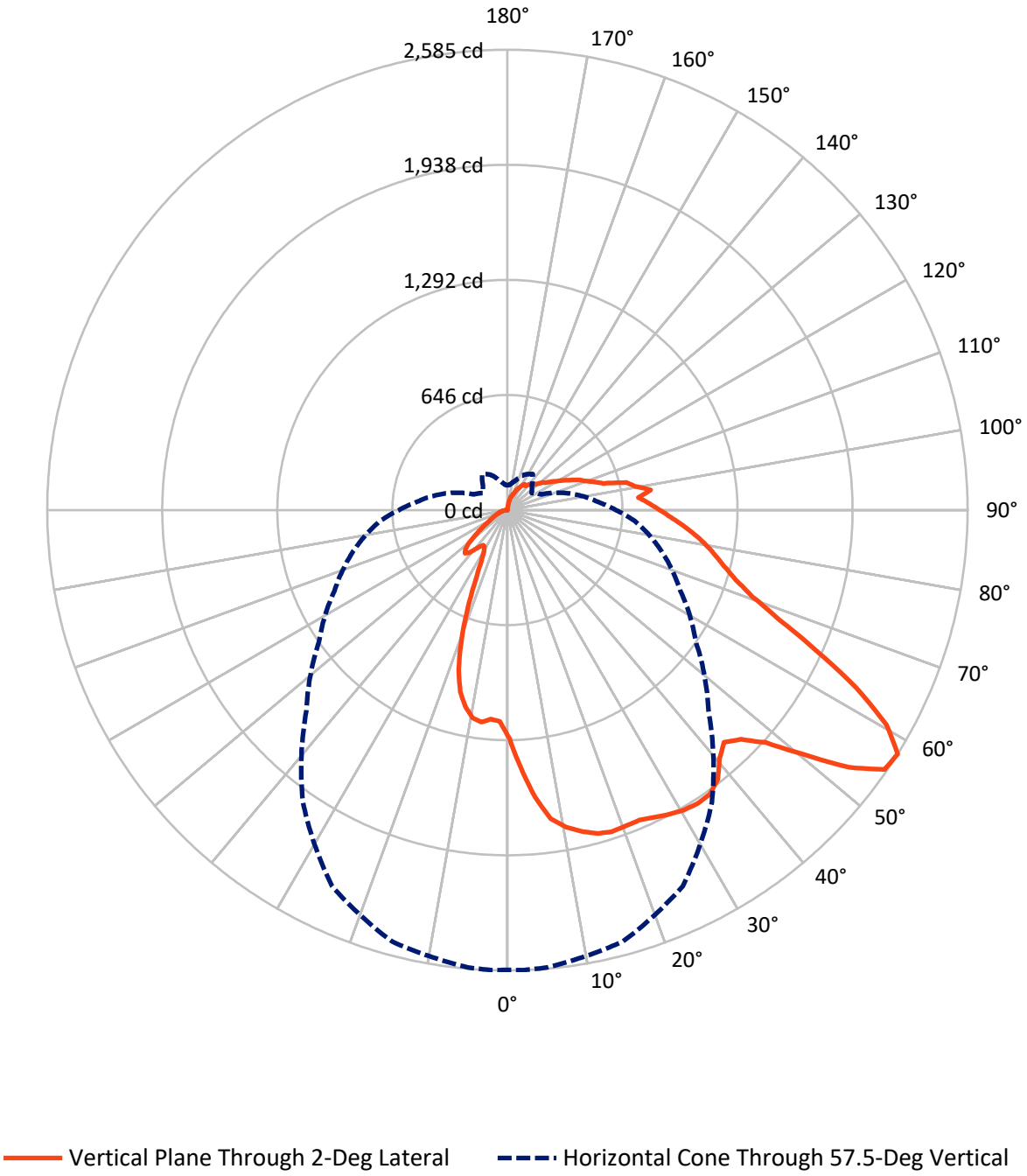
Luminous Intensity Polar Plot



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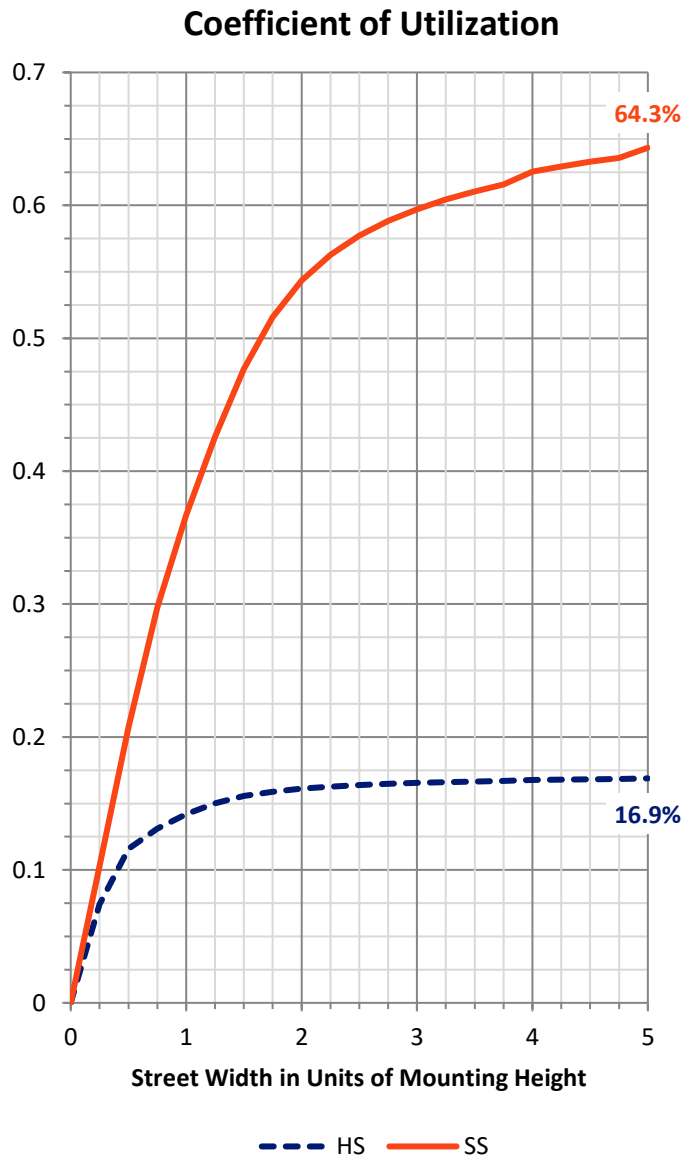
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1005.3	74.8	1080.1
	% Fixture	17.2	1.3	18.5
Street Side	Lumens	3973.8	778.2	4752.0
	% Fixture	68.1	13.3	81.5
Total	Lumens	4979.1	853.0	5832.0
	% Fixture	85.4	14.6	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	130.6	2.2
10°-20°	398.0	6.8
20°-30°	578.7	9.9
30°-40°	684.0	11.7
40°-50°	744.7	12.8
50°-60°	851.6	14.6
60°-70°	739.2	12.7
70°-80°	496.1	8.5
80°-90°	356.3	6.1
90°-100°	274.9	4.7
100°-110°	205.3	3.5
110°-120°	141.1	2.4
120°-130°	95.5	1.6
130°-140°	65.1	1.1
140°-150°	42.0	0.7
150°-160°	21.3	0.4
160°-170°	7.2	0.1
170°-180°	0.6	0.0
0°-90°	4979.1	85.4
0°-180°	5832.0	100.0



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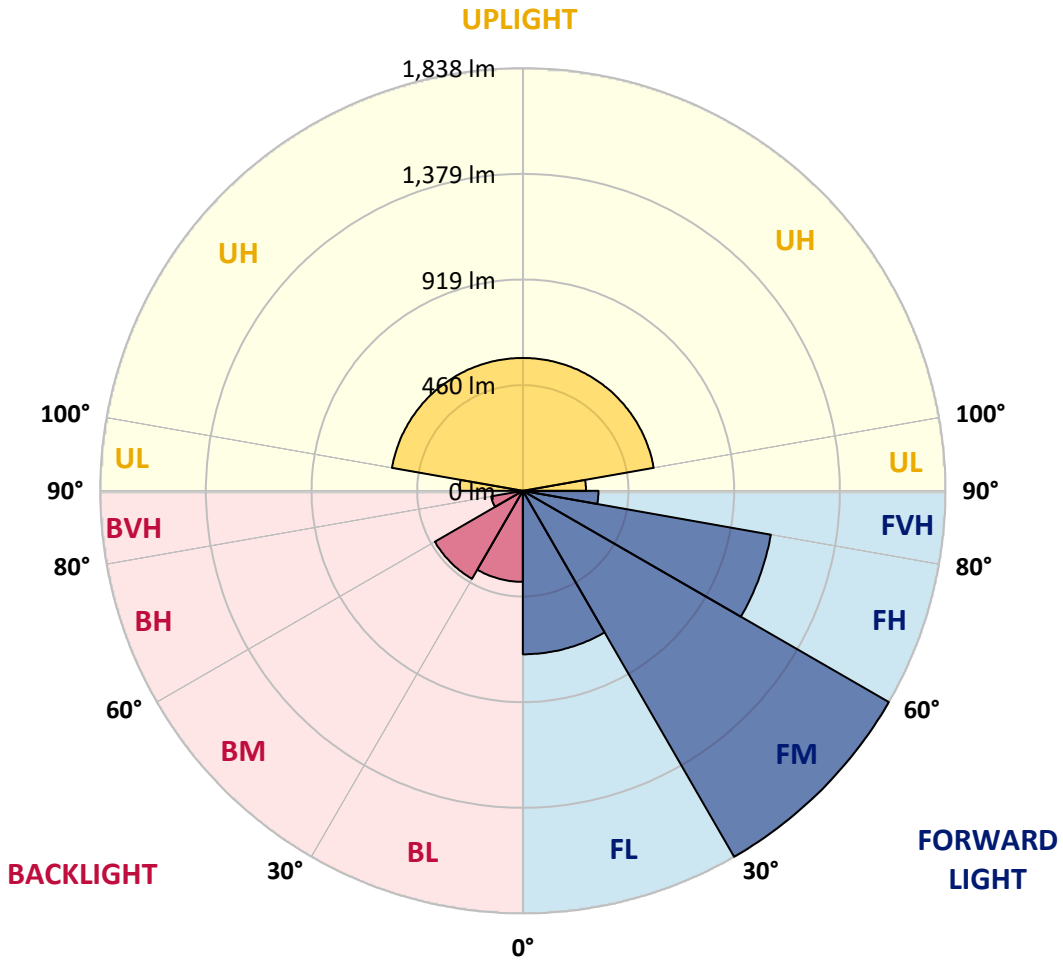
LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	711.2	12.2			
FM	(30°-60°)	1838.2	31.5			
FH	(60°-80°)	1095.6	18.8			G1/1800
FVH	(80°-90°)	328.9	5.6			G3/500
BL	(0°-30°)	396.1	6.8	B1/500		
BM	(30°-60°)	442.0	7.6	B1/1000		
BH	(60°-80°)	139.7	2.4	B1/500		G1/500
BVH	(80°-90°)	27.4	0.5			G1/100
UL	(90°-100°)	274.9	4.7		U3/500	
UH	(100°-180°)	578.0	9.9		U4/1000	

BUG Rating: B1-U4-G3
Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	2°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	1282.7	*1282.7*	1282.7	1282.7	1282.7	1282.7	1282.7	1282.7	1282.7	1282.7	1282.7
2.5°	1455.4	*1450.6*	1448.2	1445.8	1433.8	1419.4	1397.8	1373.8	1347.5	1316.3	1285.1
5°	1620.8	*1618.4*	1616.0	1606.4	1587.2	1560.9	1515.3	1476.9	1421.8	1359.5	1301.9
7.5°	1752.7	*1750.3*	1747.9	1738.3	1716.7	1675.9	1623.2	1565.6	1488.9	1402.6	1313.9
10°	1810.2	*1810.2*	1810.2	1803.0	1786.2	1757.5	1707.1	1635.2	1544.1	1436.2	1316.3
12.5°	1851.0	*1851.0*	1848.6	1841.4	1824.6	1795.8	1759.9	1697.5	1594.4	1464.9	1321.1
15°	1882.1	*1884.5*	1884.5	1874.9	1858.2	1827.0	1791.0	1735.9	1640.0	1493.7	1328.3
17.5°	1896.5	*1898.9*	1896.5	1889.3	1872.5	1841.4	1803.0	1752.7	1663.9	1512.9	1325.9
20°	1894.1	*1894.1*	1891.7	1884.5	1870.1	1841.4	1803.0	1747.9	1666.3	1517.7	1316.3
22.5°	1891.7	*1891.7*	1891.7	1879.7	1858.2	1829.4	1793.4	1738.3	1659.2	1517.7	1301.9
25°	1910.9	*1910.9*	1908.5	1891.7	1863.0	1822.2	1779.0	1723.9	1644.8	1512.9	1287.5
27.5°	1932.5	*1934.9*	1930.1	1913.3	1874.9	1819.8	1764.6	1704.7	1625.6	1498.5	1273.1
30°	1954.1	*1954.1*	1951.7	1930.1	1884.5	1822.2	1747.9	1675.9	1594.4	1476.9	1249.2
32.5°	1963.7	*1963.7*	1961.3	1942.1	1894.1	1819.8	1733.5	1642.4	1558.5	1443.4	1215.6
35°	1956.5	*1958.9*	1958.9	1942.1	1903.7	1827.0	1723.9	1613.6	1517.7	1402.6	1177.2
37.5°	1918.1	*1918.1*	1918.1	1913.3	1891.7	1831.8	1716.7	1584.8	1472.1	1352.3	1131.7
40°	1829.4	*1834.2*	1834.2	1834.2	1836.6	1812.6	1716.7	1558.5	1419.4	1297.1	1081.3
42.5°	1783.8	*1783.8*	1783.8	1764.6	1750.3	1745.5	1690.3	1536.9	1364.2	1234.8	1026.2
45°	1836.6	*1836.6*	1834.2	1798.2	1719.1	1663.9	1625.6	1498.5	1311.5	1170.0	971.0
47.5°	1956.5	*1949.3*	1946.9	1884.5	1783.8	1644.8	1548.9	1436.2	1256.4	1112.5	923.1
50°	2162.7	*2155.5*	2148.3	2059.6	1891.7	1704.7	1512.9	1366.6	1194.0	1055.0	865.5
52.5°	2407.2	*2400.0*	2383.2	2284.9	2066.7	1795.8	1527.3	1313.9	1138.9	992.6	810.4
55°	2570.3	*2570.3*	2558.3	2467.2	2241.8	1913.3	1565.6	1294.7	1100.5	937.5	764.8
57.5°	*2582.2*	*2584.6*	*2577.4*	*2507.9*	*2330.5*	*2002.0*	*1596.8*	*1292.3*	*1071.7*	*896.7*	*719.3*
60°	2440.8	*2445.6*	2448.0	2380.8	2253.8	1987.6	1587.2	1273.1	1050.2	860.7	673.7
62.5°	2191.4	*2198.6*	2201.0	2133.9	2028.4	1834.2	1500.9	1227.6	1026.2	832.0	635.4
65°	1901.3	*1908.5*	1908.5	1836.6	1733.5	1584.8	1340.3	1141.3	985.4	808.0	594.6
67.5°	1642.4	*1647.2*	1647.2	1570.4	1460.2	1318.7	1146.1	1016.6	927.9	784.0	561.0
70°	1455.4	*1460.2*	1455.4	1385.8	1254.0	1105.3	959.0	887.1	853.6	743.3	520.3
72.5°	1335.5	*1340.3*	1330.7	1256.4	1117.3	959.0	812.8	767.2	764.8	695.3	481.9
75°	1251.6	*1256.4*	1246.8	1167.6	1026.2	863.1	712.1	671.3	692.9	649.8	443.6
77.5°	1182.0	*1186.8*	1177.2	1098.1	954.3	796.0	645.0	604.2	637.8	592.2	393.2
80°	1114.9	*1119.7*	1110.1	1031.0	894.3	748.1	592.2	544.3	563.4	513.1	330.9
82.5°	1045.4	*1047.8*	1038.2	966.2	844.0	707.3	556.2	505.9	522.7	460.3	263.7
85°	968.6	*973.4*	966.2	899.1	791.2	671.3	522.7	479.5	486.7	400.4	199.0
87.5°	899.1	*903.9*	896.7	836.8	743.3	633.0	496.3	450.8	450.8	354.8	151.1
90°	841.6	*844.0*	836.8	786.4	700.1	601.8	472.3	424.4	414.8	314.1	119.9
92.5°	791.2	*788.8*	781.6	740.9	661.7	573.0	453.2	405.2	378.8	275.7	105.5
95°	736.1	*738.5*	733.7	695.3	628.2	541.9	436.4	383.6	340.5	232.6	93.5
97.5°	812.8	*812.8*	810.4	767.2	683.3	573.0	448.4	371.6	306.9	201.4	88.7
100°	738.5	*728.9*	728.9	695.3	633.0	544.3	429.2	345.3	275.7	177.4	86.3
102.5°	680.9	*685.7*	683.3	647.4	585.0	498.7	383.6	302.1	237.4	158.2	88.7
105°	568.2	*558.6*	551.5	527.5	484.3	426.8	340.5	273.3	213.4	148.7	91.1
107.5°	515.5	*510.7*	508.3	489.1	453.2	398.0	321.3	261.3	203.8	141.5	93.5
110°	467.5	*465.1*	462.7	446.0	414.8	362.0	299.7	249.4	194.2	134.3	93.5

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CANDELA DISTRIBUTION (continued):

	0°	2°	5°	15°	25°	35°	45°	55°	65°	75°	85°
112.5°	434.0	*434.0*	429.2	414.8	381.2	330.9	278.1	237.4	179.8	129.5	93.5
115°	393.2	*390.8*	388.4	376.4	347.7	306.9	258.9	218.2	165.4	127.1	93.5
117.5°	354.8	*354.8*	354.8	340.5	314.1	278.1	244.6	203.8	155.8	122.3	91.1
120°	318.9	*318.9*	318.9	306.9	285.3	256.5	225.4	189.4	146.3	119.9	86.3
122.5°	294.9	*292.5*	292.5	280.5	261.3	235.0	208.6	177.4	141.5	115.1	81.5
125°	266.1	*263.7*	263.7	254.1	239.8	218.2	201.4	170.2	139.1	112.7	76.7
127.5°	254.1	*251.8*	251.8	242.2	227.8	208.6	191.8	160.6	134.3	105.5	71.9
130°	227.8	*227.8*	227.8	220.6	208.6	199.0	177.4	153.4	127.1	100.7	67.1
132.5°	211.0	*211.0*	208.6	206.2	201.4	191.8	167.8	148.7	122.3	93.5	62.3
135°	199.0	*199.0*	199.0	203.8	196.6	179.8	160.6	141.5	115.1	86.3	57.5
137.5°	199.0	*196.6*	196.6	194.2	184.6	170.2	158.2	134.3	107.9	81.5	52.7
140°	184.6	*184.6*	182.2	177.4	170.2	167.8	151.1	127.1	100.7	76.7	45.6
142.5°	167.8	*167.8*	167.8	167.8	172.6	160.6	141.5	119.9	93.5	69.5	43.2
145°	175.0	*175.0*	175.0	170.2	165.4	153.4	131.9	110.3	88.7	64.7	38.4
147.5°	167.8	*167.8*	167.8	163.0	153.4	139.1	119.9	100.7	81.5	59.9	33.6
150°	155.8	*153.4*	153.4	148.7	139.1	124.7	110.3	93.5	76.7	52.7	28.8
152.5°	136.7	*136.7*	136.7	131.9	124.7	115.1	98.3	86.3	67.1	48.0	26.4
155°	124.7	*124.7*	122.3	119.9	110.3	98.3	88.7	76.7	59.9	40.8	21.6
157.5°	105.5	*105.5*	105.5	100.7	95.9	88.7	81.5	67.1	50.4	36.0	16.8
160°	93.5	*93.5*	93.5	91.1	88.7	81.5	71.9	57.5	45.6	31.2	14.4
162.5°	83.9	*83.9*	83.9	81.5	76.7	69.5	59.9	48.0	36.0	24.0	12.0
165°	71.9	*71.9*	69.5	67.1	62.3	57.5	48.0	38.4	28.8	19.2	9.6
167.5°	55.1	*55.1*	55.1	52.7	50.4	45.6	38.4	31.2	21.6	12.0	7.2
170°	40.8	*40.8*	40.8	38.4	36.0	31.2	24.0	19.2	12.0	7.2	4.8
172.5°	26.4	*21.6*	19.2	16.8	16.8	14.4	12.0	9.6	4.8	4.8	4.8
175°	0.0	*0.0*	0.0	0.0	2.4	2.4	2.4	2.4	2.4	2.4	2.4
177.5°	0.0	*0.0*	0.0	0.0	2.4	2.4	2.4	2.4	2.4	2.4	2.4
180°	2.4	*2.4*	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4

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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1282.7	1282.7	1282.7	1282.7	1282.7	1282.7	1282.7	1282.7	1282.7	1282.7	1282.7
2.5°	1273.1	1261.1	1244.4	1225.2	1210.8	1198.8	1194.0	1191.6	1189.2	1189.2	1186.8
5°	1273.1	1254.0	1220.4	1196.4	1182.0	1174.8	1174.8	1174.8	1177.2	1177.2	1177.2
7.5°	1273.1	1239.6	1201.2	1177.2	1167.6	1172.4	1182.0	1189.2	1196.4	1198.8	1201.2
10°	1261.1	1218.0	1177.2	1160.4	1162.8	1177.2	1191.6	1191.6	1189.2	1184.4	1182.0
12.5°	1251.6	1201.2	1158.1	1150.9	1167.6	1177.2	1165.2	1153.3	1141.3	1131.7	1129.3
15°	1244.4	1184.4	1141.3	1148.5	1165.2	1148.5	1122.1	1095.7	1071.7	1057.4	1052.6
17.5°	1227.6	1162.8	1124.5	1138.9	1131.7	1098.1	1052.6	1007.0	968.6	939.9	932.7
20°	1206.0	1136.5	1100.5	1119.7	1086.1	1033.4	956.7	884.7	822.4	779.2	767.2
22.5°	1182.0	1107.7	1076.5	1083.7	1031.0	949.5	834.4	728.9	640.2	589.8	594.6
25°	1160.4	1081.3	1052.6	1038.2	963.8	848.8	688.1	556.2	469.9	424.4	426.8
27.5°	1136.5	1052.6	1026.2	995.0	891.9	726.5	532.3	414.8	350.1	318.9	321.3
30°	1107.7	1021.4	990.2	932.7	796.0	592.2	410.0	321.3	282.9	268.5	266.1
32.5°	1074.1	983.0	949.5	867.9	695.3	467.5	326.1	270.9	249.4	244.6	242.2
35°	1035.8	944.7	901.5	798.4	587.4	371.6	275.7	247.0	239.8	239.8	239.8
37.5°	990.2	899.1	848.8	721.7	481.9	304.5	247.0	237.4	244.6	254.1	256.5
40°	942.3	853.6	793.6	637.8	395.6	261.3	232.6	242.2	266.1	285.3	287.7
42.5°	896.7	810.4	736.1	553.9	328.5	235.0	227.8	256.5	294.9	318.9	323.7
45°	846.4	767.2	676.1	469.9	275.7	218.2	230.2	278.1	321.3	338.1	340.5
47.5°	798.4	716.9	611.4	398.0	239.8	208.6	239.8	299.7	326.1	321.3	323.7
50°	750.5	666.5	541.9	333.3	213.4	201.4	249.4	304.5	302.1	282.9	280.5
52.5°	700.1	621.0	477.1	282.9	191.8	196.6	258.9	287.7	258.9	227.8	225.4
55°	649.8	568.2	417.2	242.2	177.4	194.2	258.9	256.5	211.0	179.8	177.4
57.5°	*609.0*	*513.1*	*359.6*	*208.6*	*165.4*	*194.2*	*247.0*	*218.2*	*170.2*	*141.5*	*139.1*
60°	556.2	465.1	309.3	184.6	155.8	189.4	225.4	179.8	136.7	115.1	112.7
62.5°	508.3	422.0	266.1	163.0	146.3	184.6	196.6	148.7	112.7	95.9	95.9
65°	465.1	378.8	227.8	148.7	139.1	172.6	170.2	122.3	93.5	81.5	81.5
67.5°	429.2	335.7	194.2	134.3	131.9	160.6	143.9	100.7	81.5	69.5	69.5
70°	388.4	294.9	165.4	122.3	122.3	143.9	119.9	86.3	69.5	59.9	57.5
72.5°	345.3	249.4	141.5	112.7	112.7	127.1	98.3	71.9	57.5	50.4	48.0
75°	299.7	201.4	122.3	103.1	105.5	110.3	81.5	62.3	50.4	43.2	40.8
77.5°	251.8	155.8	105.5	95.9	95.9	93.5	67.1	52.7	40.8	36.0	33.6
80°	199.0	119.9	88.7	86.3	86.3	79.1	55.1	43.2	33.6	28.8	26.4
82.5°	146.3	91.1	76.7	79.1	76.7	64.7	45.6	36.0	26.4	21.6	19.2
85°	105.5	71.9	67.1	71.9	67.1	55.1	38.4	28.8	19.2	14.4	12.0
87.5°	81.5	59.9	59.9	67.1	59.9	43.2	31.2	21.6	12.0	7.2	4.8
90°	67.1	55.1	55.1	59.9	48.0	33.6	21.6	14.4	7.2	2.4	2.4
92.5°	64.7	52.7	55.1	57.5	48.0	33.6	21.6	12.0	7.2	2.4	2.4
95°	62.3	55.1	55.1	55.1	45.6	31.2	19.2	12.0	7.2	2.4	0.0
97.5°	64.7	57.5	57.5	55.1	45.6	31.2	19.2	12.0	7.2	2.4	0.0
100°	67.1	59.9	57.5	55.1	45.6	31.2	19.2	12.0	4.8	2.4	0.0
102.5°	71.9	64.7	59.9	55.1	43.2	31.2	19.2	12.0	4.8	2.4	0.0
105°	74.3	67.1	59.9	55.1	43.2	28.8	19.2	12.0	4.8	2.4	0.0
107.5°	76.7	67.1	59.9	52.7	43.2	28.8	19.2	12.0	4.8	2.4	0.0
110°	76.7	69.5	57.5	52.7	40.8	28.8	16.8	9.6	4.8	0.0	0.0

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

Scaled Data Report

REPORT NUMBER: P1449793
CATALOG NUMBER: AXCS4ARL

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
112.5°	76.7	67.1	57.5	50.4	40.8	28.8	16.8	9.6	4.8	0.0	0.0
115°	76.7	67.1	55.1	48.0	38.4	26.4	16.8	9.6	4.8	0.0	0.0
117.5°	74.3	64.7	52.7	45.6	36.0	26.4	16.8	9.6	4.8	0.0	0.0
120°	69.5	62.3	50.4	43.2	36.0	24.0	14.4	9.6	4.8	0.0	0.0
122.5°	67.1	57.5	48.0	40.8	33.6	24.0	14.4	9.6	4.8	0.0	0.0
125°	62.3	55.1	45.6	38.4	31.2	21.6	14.4	9.6	4.8	0.0	0.0
127.5°	57.5	50.4	43.2	36.0	31.2	21.6	12.0	7.2	4.8	0.0	0.0
130°	52.7	48.0	40.8	33.6	28.8	19.2	12.0	7.2	4.8	0.0	0.0
132.5°	50.4	45.6	38.4	33.6	26.4	19.2	12.0	7.2	4.8	0.0	0.0
135°	45.6	40.8	33.6	28.8	24.0	16.8	12.0	7.2	2.4	0.0	0.0
137.5°	40.8	38.4	31.2	28.8	21.6	16.8	9.6	4.8	2.4	0.0	0.0
140°	38.4	33.6	28.8	26.4	21.6	14.4	9.6	4.8	2.4	0.0	0.0
142.5°	33.6	31.2	26.4	24.0	19.2	14.4	9.6	4.8	2.4	0.0	0.0
145°	31.2	28.8	24.0	21.6	16.8	12.0	7.2	4.8	2.4	0.0	0.0
147.5°	28.8	26.4	21.6	19.2	16.8	12.0	7.2	4.8	2.4	0.0	0.0
150°	26.4	24.0	21.6	16.8	14.4	9.6	4.8	2.4	2.4	0.0	0.0
152.5°	21.6	21.6	19.2	16.8	12.0	9.6	4.8	2.4	2.4	0.0	0.0
155°	19.2	19.2	16.8	14.4	9.6	7.2	4.8	2.4	0.0	0.0	0.0
157.5°	16.8	16.8	14.4	12.0	9.6	7.2	4.8	2.4	0.0	0.0	0.0
160°	14.4	14.4	12.0	9.6	7.2	4.8	2.4	2.4	0.0	0.0	0.0
162.5°	12.0	12.0	9.6	7.2	7.2	4.8	2.4	0.0	0.0	0.0	0.0
165°	9.6	9.6	7.2	7.2	4.8	2.4	2.4	0.0	0.0	0.0	0.0
167.5°	7.2	7.2	7.2	4.8	4.8	2.4	2.4	2.4	0.0	0.0	0.0
170°	4.8	4.8	4.8	4.8	2.4	2.4	2.4	0.0	0.0	0.0	0.0
172.5°	4.8	2.4	2.4	2.4	2.4	2.4	2.4	0.0	0.0	0.0	0.0
175°	2.4	2.4	2.4	2.4	2.4	2.4	2.4	0.0	0.0	0.0	0.0
177.5°	2.4	2.4	2.4	2.4	2.4	2.4	0.0	0.0	0.0	0.0	0.0
180°	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4

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

LUMARK

Report Number: SP1-2310-196-2

Test Date: 11/15/2023

Luminaire Tested: AXCS4ARL

Data in this report applies to families of products including AXCS4ARL.

Report Generated By FNC07603 / LDUCLS01DT446
Version: v6.12

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

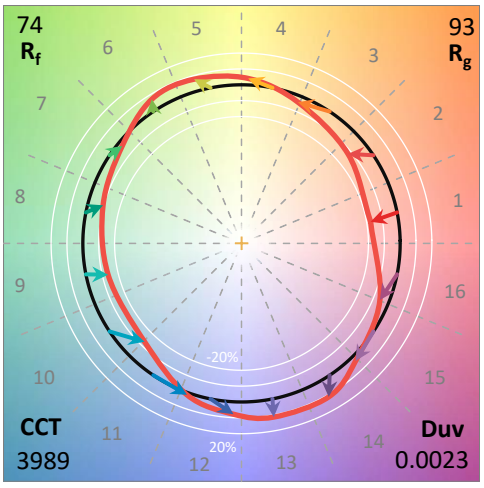
Test Information

Test Method:	LM-79-2019
Report Number:	SP1-2310-196-2
Test Lab:	COOPER LIGHTING SOLUTIONS
Photometer:	SP1 - 76IN SPHERE
Measurement Geometry:	4π
Issue Date:	11/17/2023
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	LUMARK
Catalog Number:	**AXCS4ARL**
Description:	4ARL AXCENT SMALL WALLPACK, REFRACTIVE LENS

Spectral Parameters

CCT (K):	3989	CRI (Ra):	71.5		
CIE u':	0.2239	R1:	67.9	R9:	-35.5
CIE v':	0.5046	R2:	78.6	R10:	49.5
Duv:	0.0023	R3:	87.2	R11:	65.6
CIE x:	0.3824	R4:	70.1	R12:	40.3
CIE y:	0.3830	R5:	67.7	R13:	69.7
CIE z:	0.2346	R6:	69.6	R14:	92.8
Peak Wavelength (nm):	449	R7:	80.7		
Dominant Wavelength (nm):	577	R8:	50.2		
Purity:	29.8				

Rf:	74.3
Rg:	93.2



Test Conditions

Stabilization Time:	25M
Operation Time:	12H
Room Temperature (°C) / RH%:	25.4/32%
Sphere Temperature (°C):	24.8

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

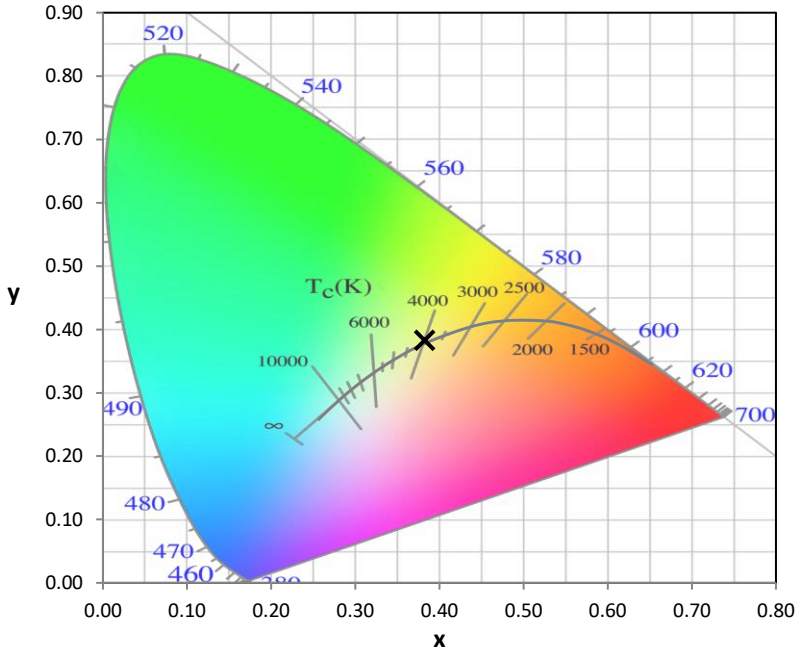
REPORT NUMBER: SP1-2310-196-2

Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	76INCH SPHERE IN0058	8/9/2023	2/9/2024
Power Meter	XITRON 2801 IN0071	10/23/2023	10/23/2024
AC Power Source	CHROMA 61603 IN0063	10/24/2023	10/24/2024
DC Power Source	AGILENT E3634A IN0208	10/24/2023	10/24/2024
Sphere Thermometer	ONSET IN0085	10/24/2023	10/24/2024
Room Thermometer	ONSET IN0046	10/24/2023	10/24/2024

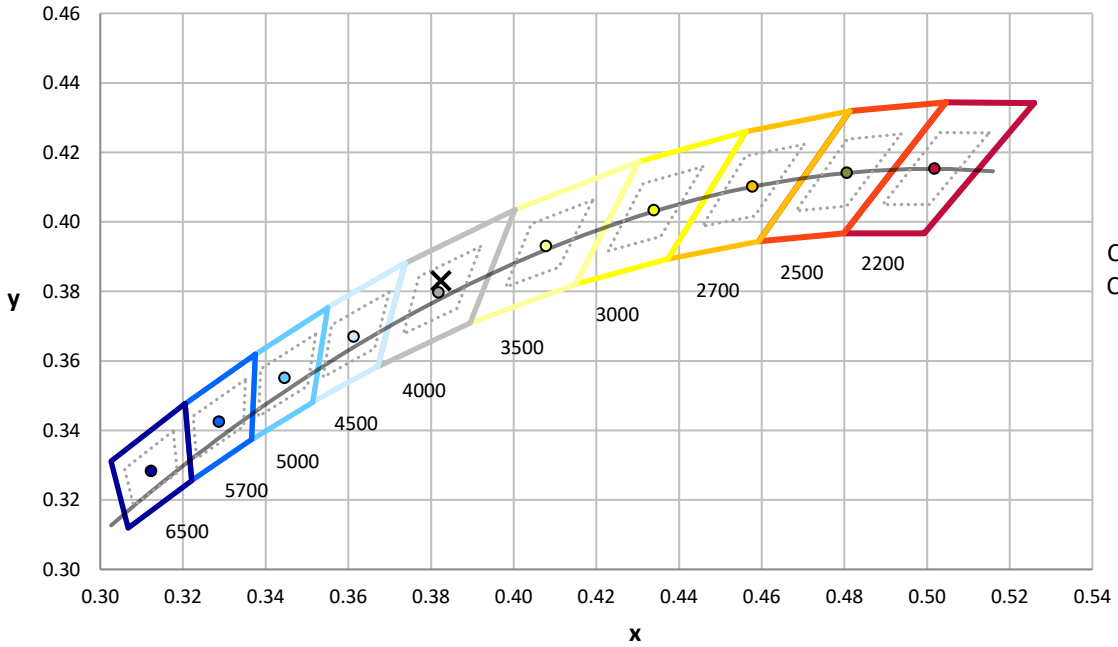
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

REPORT NUMBER: SP1-2310-196-2

CIE 1931 Chromaticity Diagram



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



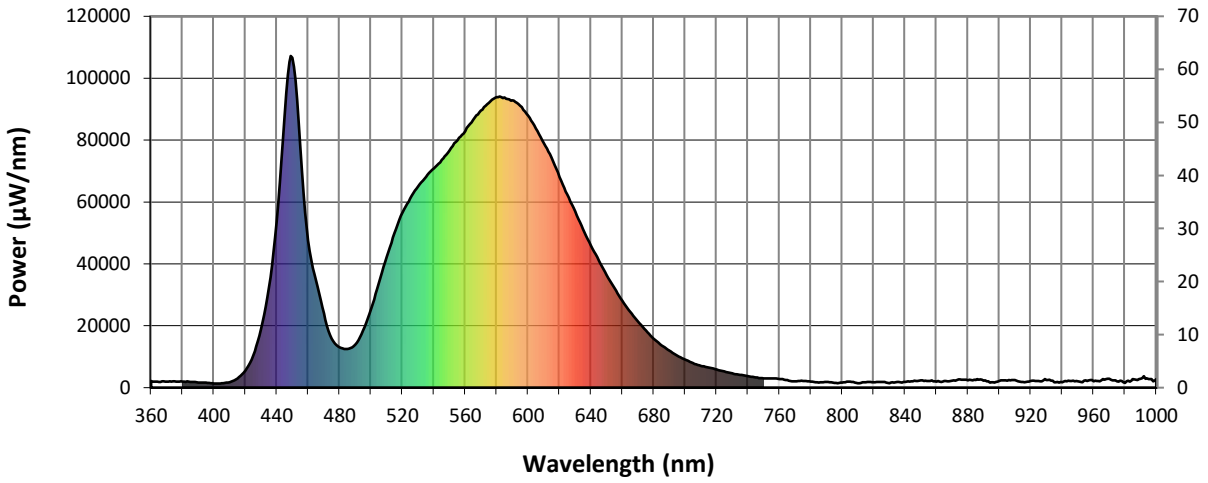
CCT = 3989K
CIE x = 0.3824
CIE y = 0.3830
Duv = 0.0023

Point lies inside the ANSI 4000K 4-step quadrangle

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

REPORT NUMBER: SP1-2310-196-2

Photopic Flux vs. Wavelength



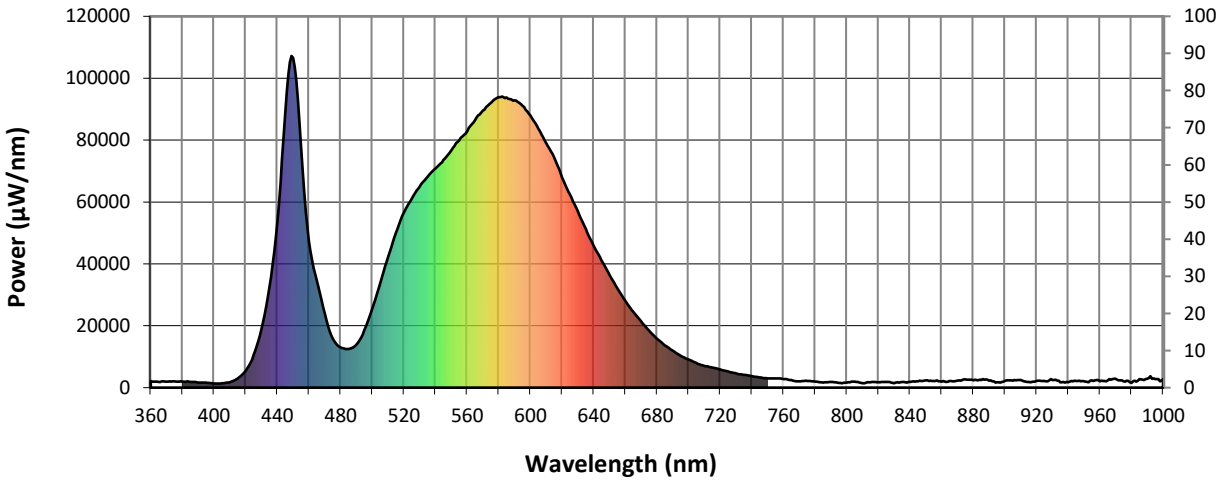
######

λ (nm)	Power (µW/nm)	Lumens (ϕ/nm)	λ (nm)	Power (µW/nm)	Lumens (ϕ/nm)	λ (nm)	Power (µW/nm)	Lumens (ϕ/nm)	λ (nm)	Power (µW/nm)	Lumens (ϕ/nm)	λ (nm)	Power (µW/nm)	Lumens (ϕ/nm)
360	2103	NR	490	13947	NR	620	68035	NR	750	2982	NR	880	2406	NR
365	1882	NR	495	18465	NR	625	62410	NR	755	2945	NR	885	2499	NR
370	1950	NR	500	25369	NR	630	56951	NR	760	2743	NR	890	2213	NR
375	2090	NR	505	33708	NR	635	51259	NR	765	2420	NR	895	1716	NR
380	1982	NR	510	42258	NR	640	45918	NR	770	2074	NR	900	2109	NR
385	1865	NR	515	49906	NR	645	41080	NR	775	2175	NR	905	2259	NR
390	1647	NR	520	56541	NR	650	36394	NR	780	1960	NR	910	2427	NR
395	1590	NR	525	61051	NR	655	32134	NR	785	1681	NR	915	1826	NR
400	1336	NR	530	64990	NR	660	28071	NR	790	1849	NR	920	2166	NR
405	1418	NR	535	68091	NR	665	24535	NR	795	1569	NR	925	2130	NR
410	1773	NR	540	70833	NR	670	21376	NR	800	1631	NR	930	2460	NR
415	2953	NR	545	73585	NR	675	18450	NR	805	1936	NR	935	1766	NR
420	5494	NR	550	76575	NR	680	15825	NR	810	1433	NR	940	1740	NR
425	10426	NR	555	79888	NR	685	13647	NR	815	1736	NR	945	2170	NR
430	18916	NR	560	82861	NR	690	11944	NR	820	1738	NR	950	2092	NR
435	32496	NR	565	86577	NR	695	10273	NR	825	1790	NR	955	2320	NR
440	53695	NR	570	89513	NR	700	9059	NR	830	1471	NR	960	2007	NR
445	88125	NR	575	91992	NR	705	7898	NR	835	1829	NR	965	2406	NR
450	106644	NR	580	93825	NR	710	7060	NR	840	1809	NR	970	2893	NR
455	77500	NR	585	93790	NR	715	6536	NR	845	2028	NR	975	2095	NR
460	47526	NR	590	92825	NR	720	5852	NR	850	2366	NR	980	1543	NR
465	34654	NR	595	91100	NR	725	5219	NR	855	2108	NR	985	2791	NR
470	23938	NR	600	87857	NR	730	4590	NR	860	1985	NR	990	2873	NR
475	15810	NR	605	83791	NR	735	4101	NR	865	2130	NR	995	2815	NR
480	13021	NR	610	78954	NR	740	3688	NR	870	2275	NR	1000	2806	NR
485	12537	NR	615	74281	NR	745	3307	NR	875	2659	NR			

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

REPORT NUMBER: SP1-2310-196-2

Scotopic Flux vs. Wavelength



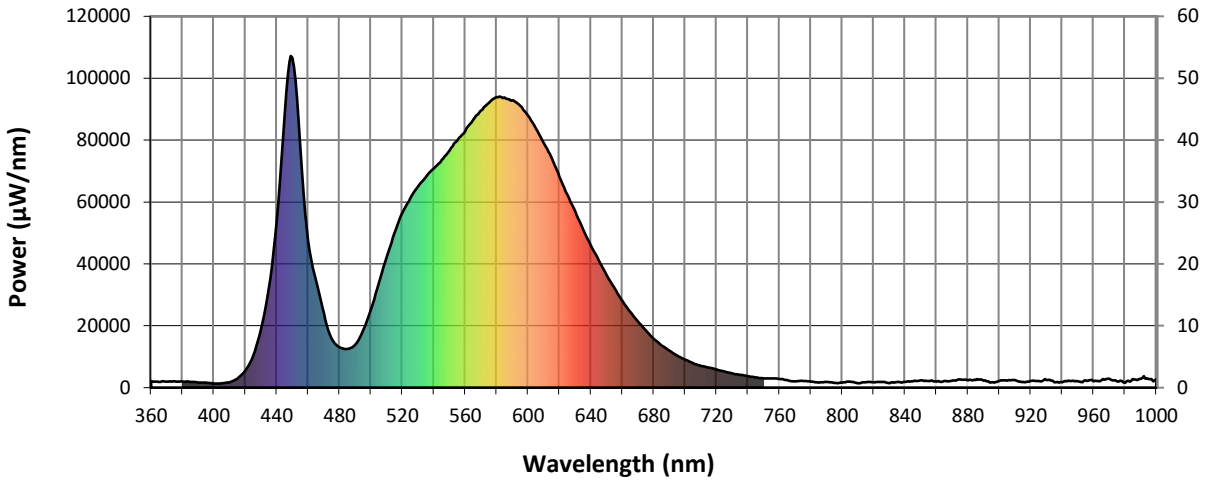
Scotopic Lumens: 7821.1 **S/P: 1.52**

λ (nm)	Power (µW/nm)	Lumens (ϕ/nm)	λ (nm)	Power (µW/nm)	Lumens (ϕ/nm)	λ (nm)	Power (µW/nm)	Lumens (ϕ/nm)	λ (nm)	Power (µW/nm)	Lumens (ϕ/nm)	λ (nm)	Power (µW/nm)	Lumens (ϕ/nm)
360	2103	NR	490	13947	NR	620	68035	NR	750	2982	NR	880	2406	NR
365	1882	NR	495	18465	NR	625	62410	NR	755	2945	NR	885	2499	NR
370	1950	NR	500	25369	NR	630	56951	NR	760	2743	NR	890	2213	NR
375	2090	NR	505	33708	NR	635	51259	NR	765	2420	NR	895	1716	NR
380	1982	NR	510	42258	NR	640	45918	NR	770	2074	NR	900	2109	NR
385	1865	NR	515	49906	NR	645	41080	NR	775	2175	NR	905	2259	NR
390	1647	NR	520	56541	NR	650	36394	NR	780	1960	NR	910	2427	NR
395	1590	NR	525	61051	NR	655	32134	NR	785	1681	NR	915	1826	NR
400	1336	NR	530	64990	NR	660	28071	NR	790	1849	NR	920	2166	NR
405	1418	NR	535	68091	NR	665	24535	NR	795	1569	NR	925	2130	NR
410	1773	NR	540	70833	NR	670	21376	NR	800	1631	NR	930	2460	NR
415	2953	NR	545	73585	NR	675	18450	NR	805	1936	NR	935	1766	NR
420	5494	NR	550	76575	NR	680	15825	NR	810	1433	NR	940	1740	NR
425	10426	NR	555	79888	NR	685	13647	NR	815	1736	NR	945	2170	NR
430	18916	NR	560	82861	NR	690	11944	NR	820	1738	NR	950	2092	NR
435	32496	NR	565	86577	NR	695	10273	NR	825	1790	NR	955	2320	NR
440	53695	NR	570	89513	NR	700	9059	NR	830	1471	NR	960	2007	NR
445	88125	NR	575	91992	NR	705	7898	NR	835	1829	NR	965	2406	NR
450	106644	NR	580	93825	NR	710	7060	NR	840	1809	NR	970	2893	NR
455	77500	NR	585	93790	NR	715	6536	NR	845	2028	NR	975	2095	NR
460	47526	NR	590	92825	NR	720	5852	NR	850	2366	NR	980	1543	NR
465	34654	NR	595	91100	NR	725	5219	NR	855	2108	NR	985	2791	NR
470	23938	NR	600	87857	NR	730	4590	NR	860	1985	NR	990	2873	NR
475	15810	NR	605	83791	NR	735	4101	NR	865	2130	NR	995	2815	NR
480	13021	NR	610	78954	NR	740	3688	NR	870	2275	NR	1000	2806	NR
485	12537	NR	615	74281	NR	745	3307	NR	875	2659	NR			

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

REPORT NUMBER: SP1-2310-196-2

Melanopic Flux vs. Wavelength



Melanopic Lumens: 3004.2 **M/P: 0.58**

λ (nm)	Power (µW/nm)	Lumens (ϕ/nm)	λ (nm)	Power (µW/nm)	Lumens (ϕ/nm)	λ (nm)	Power (µW/nm)	Lumens (ϕ/nm)	λ (nm)	Power (µW/nm)	Lumens (ϕ/nm)	λ (nm)	Power (µW/nm)	Lumens (ϕ/nm)
360	2103	NR	490	13947	NR	620	68035	NR	750	2982	NR	880	2406	NR
365	1882	NR	495	18465	NR	625	62410	NR	755	2945	NR	885	2499	NR
370	1950	NR	500	25369	NR	630	56951	NR	760	2743	NR	890	2213	NR
375	2090	NR	505	33708	NR	635	51259	NR	765	2420	NR	895	1716	NR
380	1982	NR	510	42258	NR	640	45918	NR	770	2074	NR	900	2109	NR
385	1865	NR	515	49906	NR	645	41080	NR	775	2175	NR	905	2259	NR
390	1647	NR	520	56541	NR	650	36394	NR	780	1960	NR	910	2427	NR
395	1590	NR	525	61051	NR	655	32134	NR	785	1681	NR	915	1826	NR
400	1336	NR	530	64990	NR	660	28071	NR	790	1849	NR	920	2166	NR
405	1418	NR	535	68091	NR	665	24535	NR	795	1569	NR	925	2130	NR
410	1773	NR	540	70833	NR	670	21376	NR	800	1631	NR	930	2460	NR
415	2953	NR	545	73585	NR	675	18450	NR	805	1936	NR	935	1766	NR
420	5494	NR	550	76575	NR	680	15825	NR	810	1433	NR	940	1740	NR
425	10426	NR	555	79888	NR	685	13647	NR	815	1736	NR	945	2170	NR
430	18916	NR	560	82861	NR	690	11944	NR	820	1738	NR	950	2092	NR
435	32496	NR	565	86577	NR	695	10273	NR	825	1790	NR	955	2320	NR
440	53695	NR	570	89513	NR	700	9059	NR	830	1471	NR	960	2007	NR
445	88125	NR	575	91992	NR	705	7898	NR	835	1829	NR	965	2406	NR
450	106644	NR	580	93825	NR	710	7060	NR	840	1809	NR	970	2893	NR
455	77500	NR	585	93790	NR	715	6536	NR	845	2028	NR	975	2095	NR
460	47526	NR	590	92825	NR	720	5852	NR	850	2366	NR	980	1543	NR
465	34654	NR	595	91100	NR	725	5219	NR	855	2108	NR	985	2791	NR
470	23938	NR	600	87857	NR	730	4590	NR	860	1985	NR	990	2873	NR
475	15810	NR	605	83791	NR	735	4101	NR	865	2130	NR	995	2815	NR
480	13021	NR	610	78954	NR	740	3688	NR	870	2275	NR	1000	2806	NR
485	12537	NR	615	74281	NR	745	3307	NR	875	2659	NR			

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

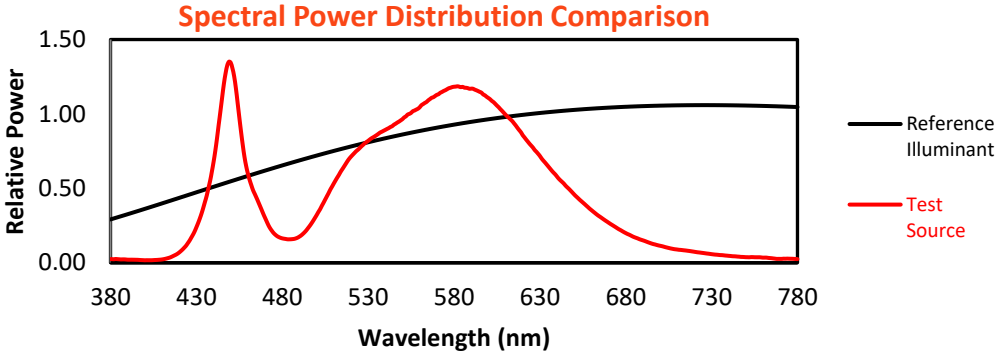
REPORT NUMBER: SP1-2310-196-2

TM-30-18

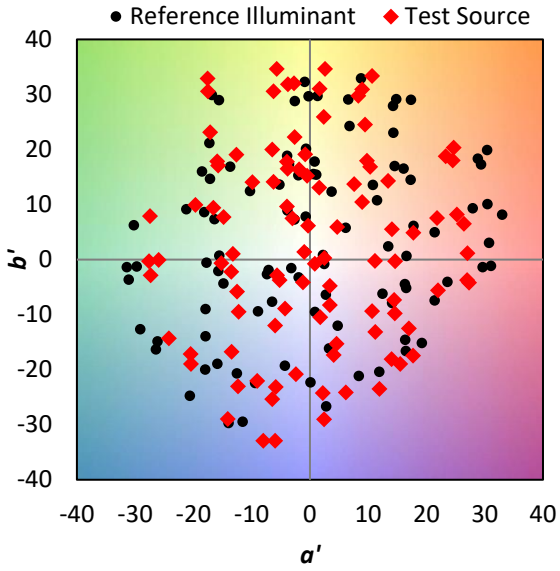
Summary

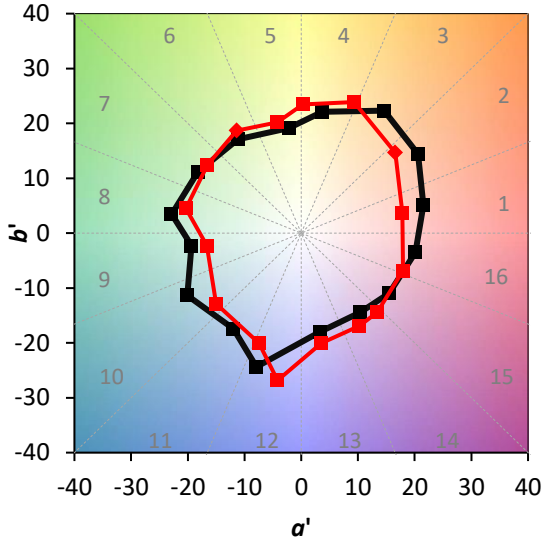
R_f = 74.3
R_g = 93.2
CIE R_a = 71.5
R_9 = -35.5

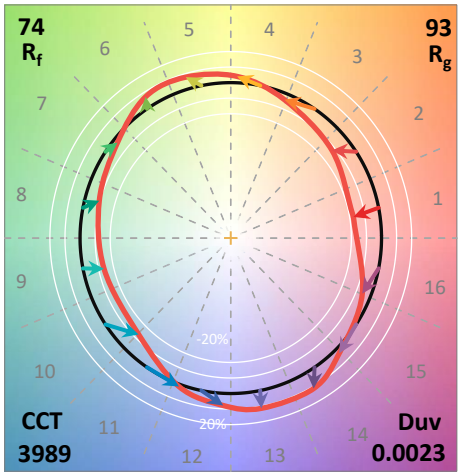
Spectral Power Distribution Comparison

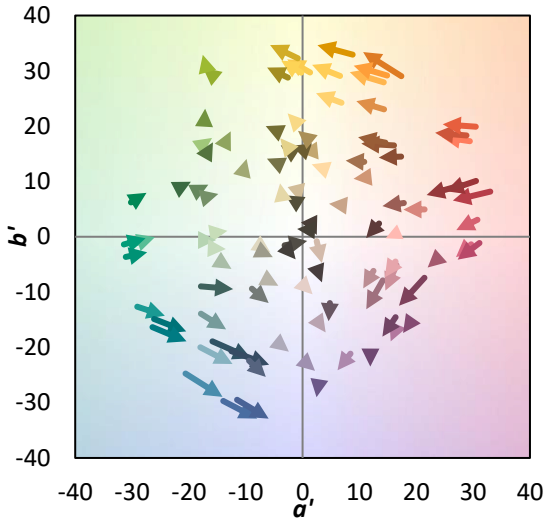


Color Vector Graphics









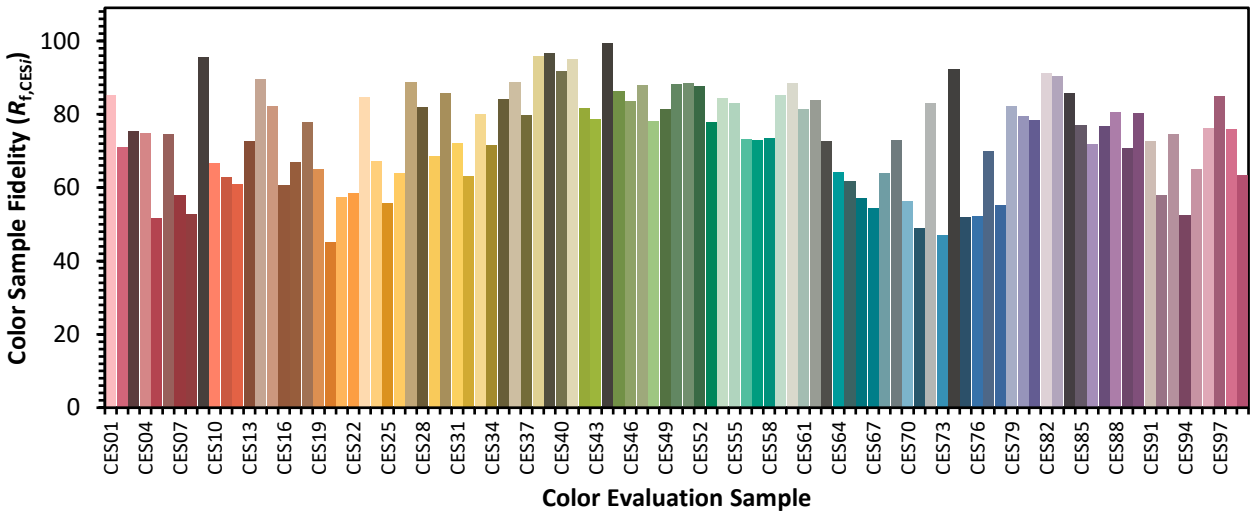
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

REPORT NUMBER: SP1-2310-196-2

TM-30-18

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

CES01 = 85	CES26 = 64	CES51 = 88	CES76 = 52
CES02 = 61	CES27 = 89	CES52 = 88	CES77 = 70
CES03 = 30	CES28 = 82	CES53 = 78	CES78 = 55
CES04 = 70	CES29 = 68	CES54 = 84	CES79 = 82
CES05 = 47	CES30 = 86	CES55 = 83	CES80 = 79
CES06 = 50	CES31 = 72	CES56 = 73	CES81 = 78
CES07 = 40	CES32 = 63	CES57 = 73	CES82 = 91
CES08 = 39	CES33 = 80	CES58 = 74	CES83 = 90
CES09 = 29	CES34 = 72	CES59 = 85	CES84 = 86
CES10 = 74	CES35 = 84	CES60 = 88	CES85 = 77
CES11 = 57	CES36 = 89	CES61 = 81	CES86 = 72
CES12 = 63	CES37 = 80	CES62 = 84	CES87 = 77
CES13 = 42	CES38 = 96	CES63 = 73	CES88 = 81
CES14 = 74	CES39 = 97	CES64 = 64	CES89 = 71
CES15 = 71	CES40 = 92	CES65 = 62	CES90 = 80
CES16 = 46	CES41 = 95	CES66 = 57	CES91 = 73
CES17 = 49	CES42 = 82	CES67 = 54	CES92 = 58
CES18 = 56	CES43 = 79	CES68 = 64	CES93 = 74
CES19 = 72	CES44 = 99	CES69 = 73	CES94 = 52
CES20 = 64	CES45 = 86	CES70 = 56	CES95 = 65
CES21 = 86	CES46 = 84	CES71 = 49	CES96 = 76
CES22 = 78	CES47 = 88	CES72 = 83	CES97 = 85
CES23 = 92	CES48 = 78	CES73 = 47	CES98 = 76
CES24 = 91	CES49 = 81	CES74 = 92	CES99 = 63
CES25 = 72	CES50 = 88	CES75 = 52	



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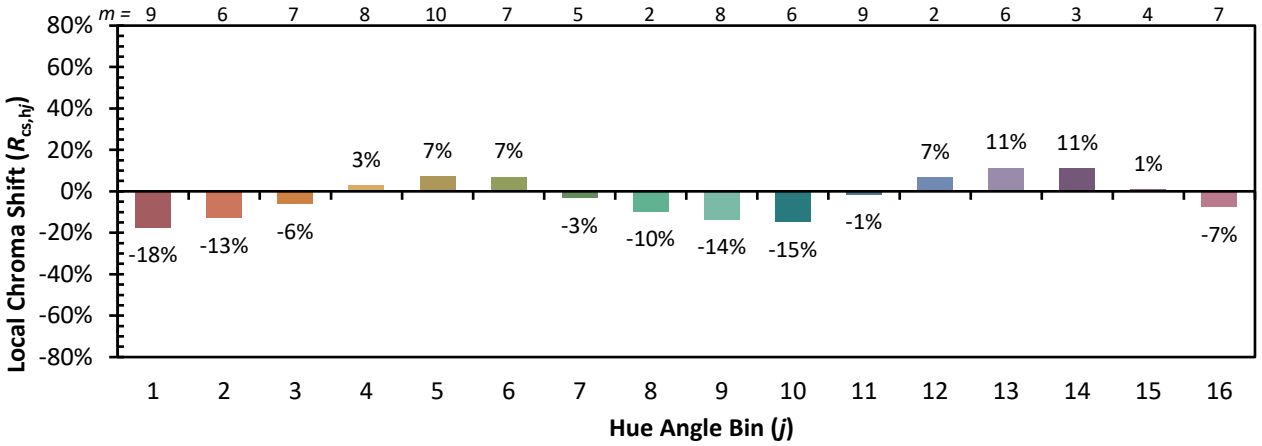
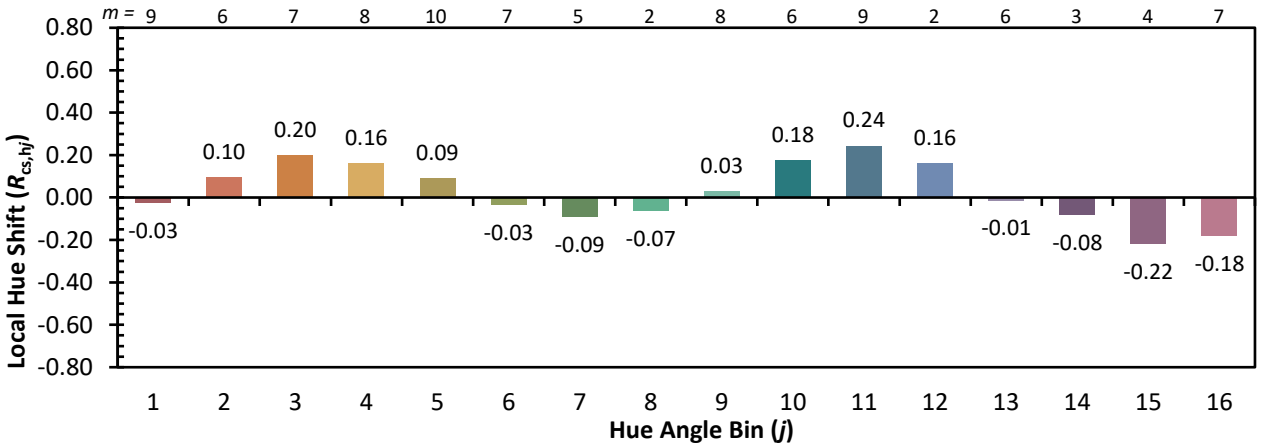
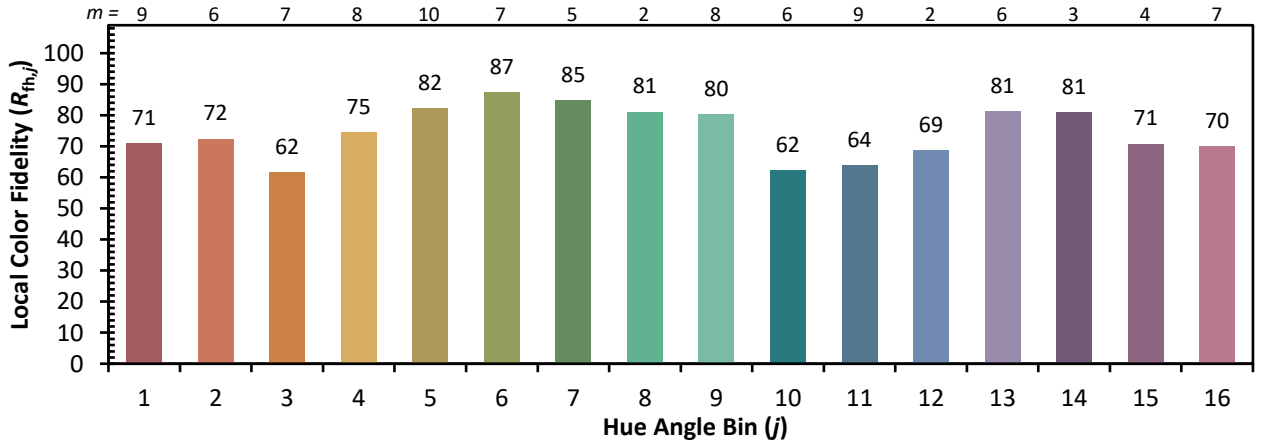
Color Rendition by Hue-Angle Bin







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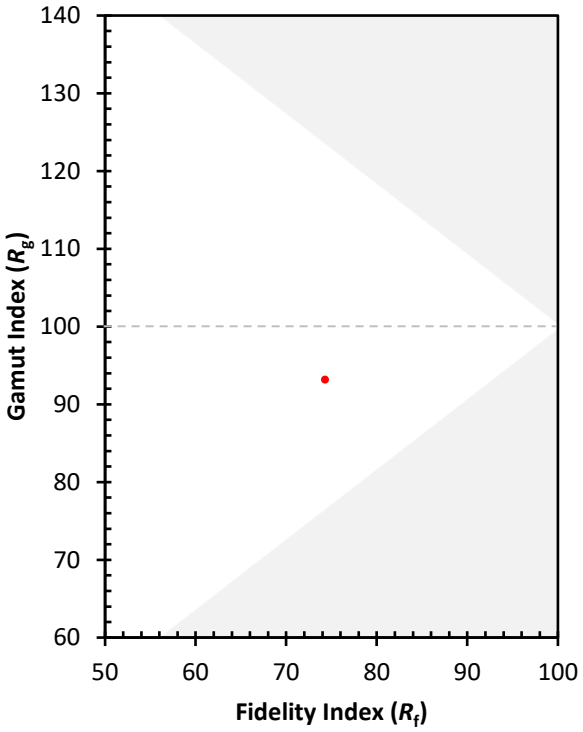
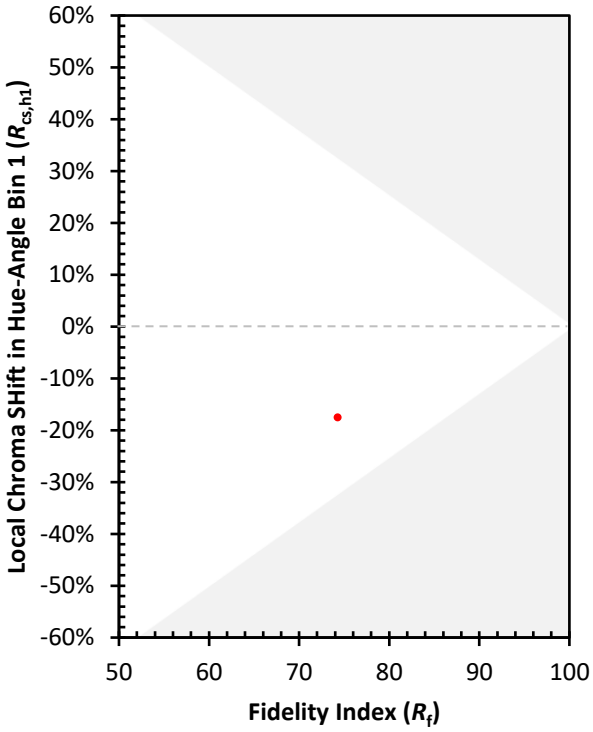
Measure Comparisons





(END OF REPORT)