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: P821233

Luminaire Tested: **TT-D4-735-24VDC-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:	P821233
	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-D4-735-24VDC-CQ-HSS
Description:	TOPTIER LED PARKING GARAGE 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:	5982.9 lumens
Efficiency:	N/A
Efficacy:	105.0 lumens/watt
Luminous Opening:	Circular (Dia: 1.12' x H: 0')
IES Classification:	Type IV - Short
BUG Rating:	B2 - U2 - G1

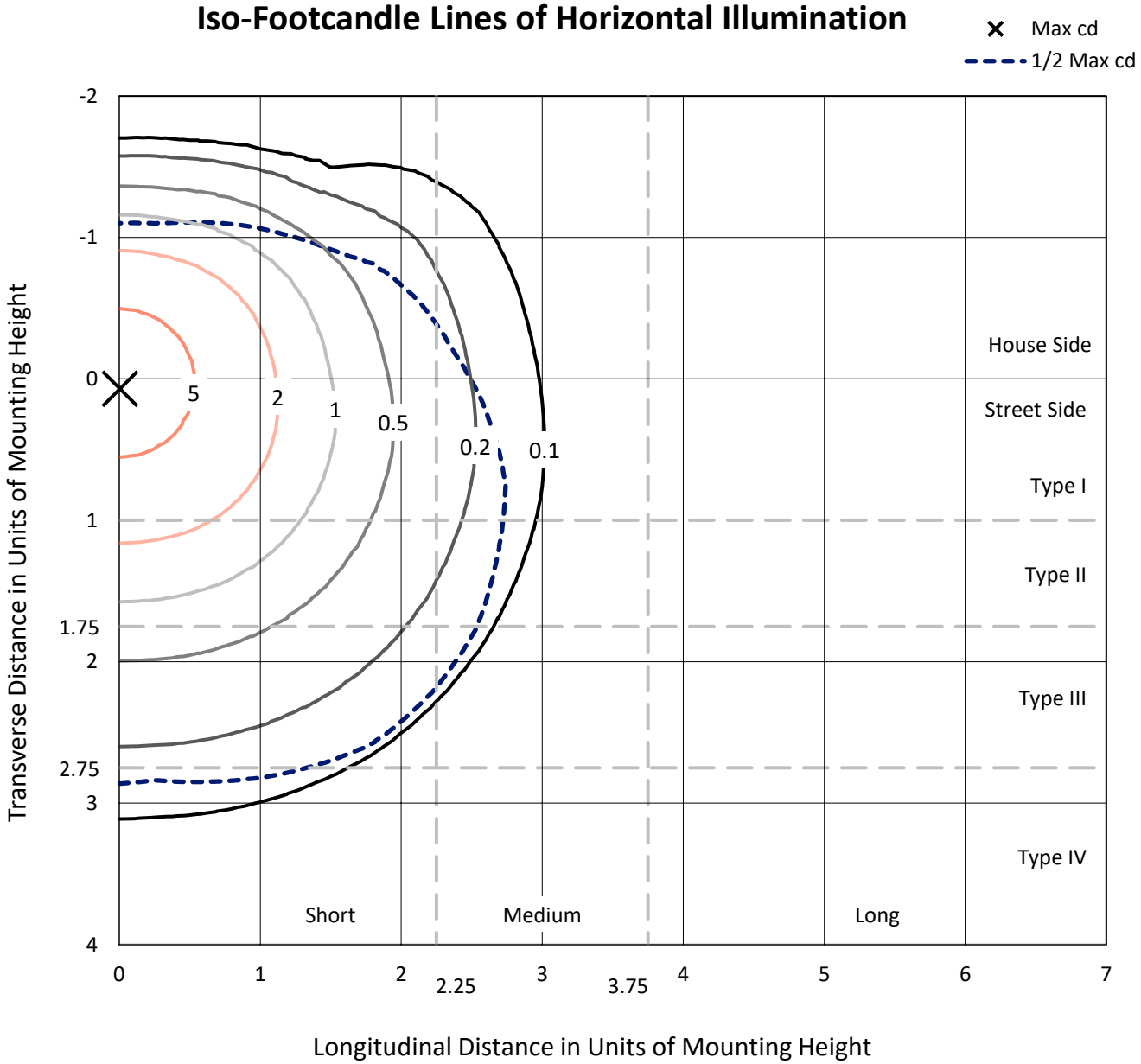
Input Watts (W):	57
Input Voltage (V):	NR
Input Current (Ain):	NR
Voltage Rise (V):	NR
Power Factor:	NR
Total Harmonic Distortion (THDi):	NR
Frequency (hertz):	60
Stabilization Time:	NR
Operation Time:	NR
Ambient Temperature (°C):	NR
Test Distance:	25 FT

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Iso-Footcandle Lines of Horizontal Illumination



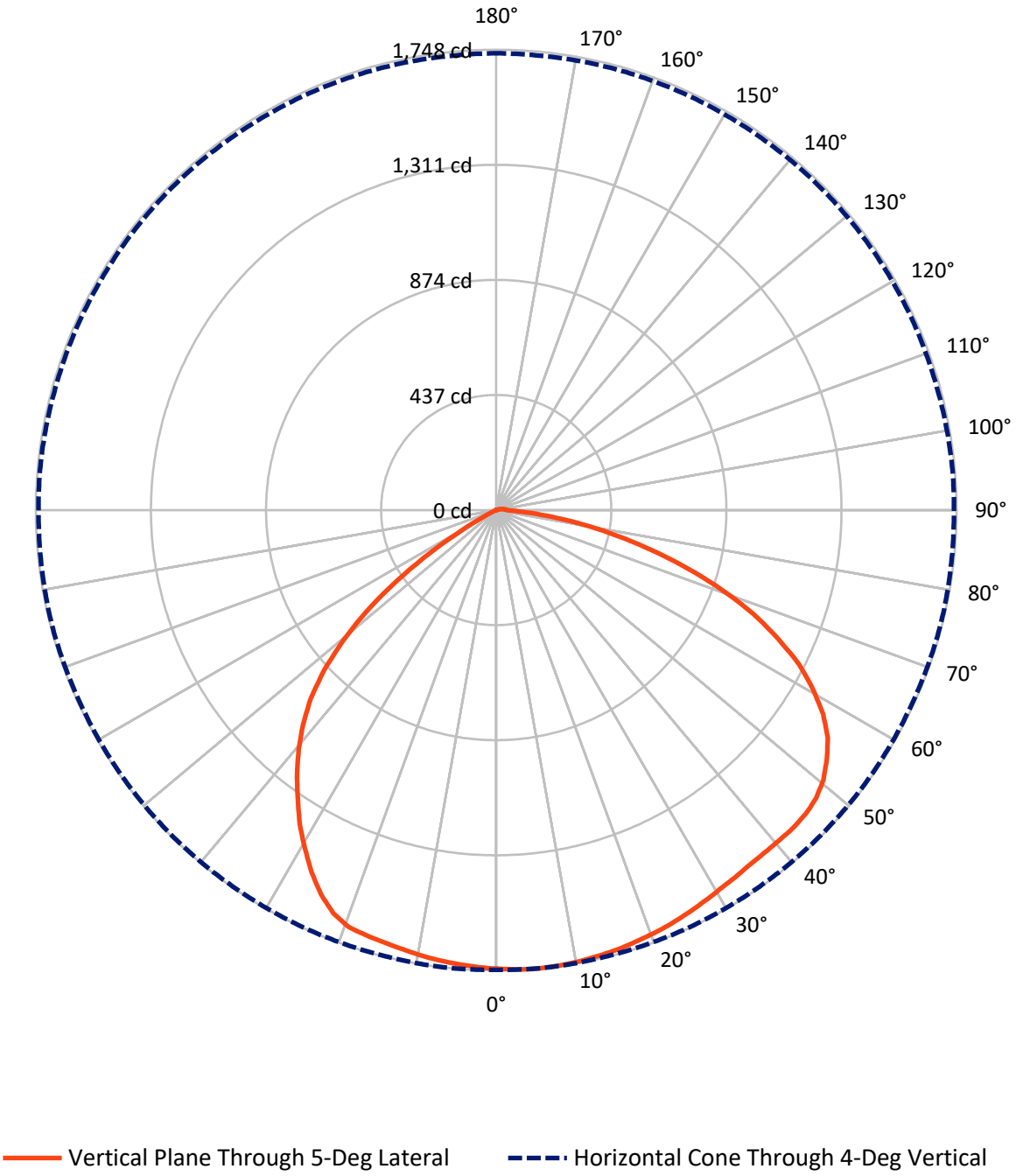
Based on 15 foot mounting height. Maximum calculated value = 7.7 fc
Type IV - Short - N/A

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Luminous Intensity Polar Plot



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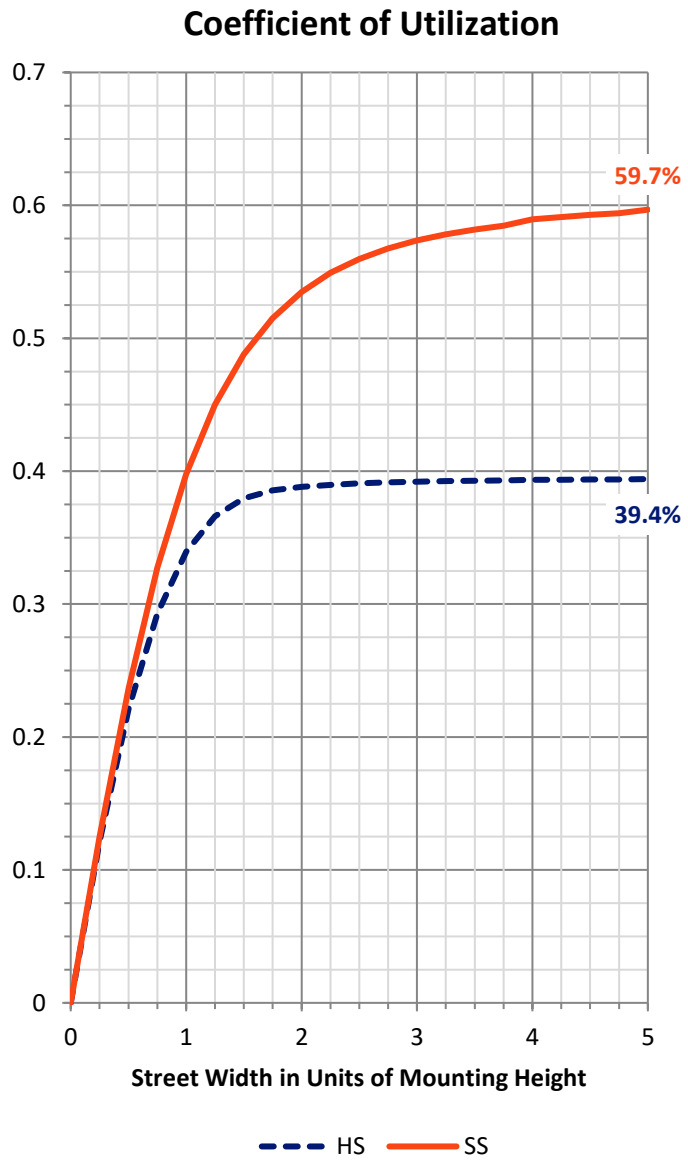
REPORT NUMBER: P821233
CATALOG NUMBER: TT-D4-735-24VDC-CQ-HSS

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2371.0	3.0	2374.0
	% Fixture	39.6	0.0	39.7
Street Side	Lumens	3592.2	16.6	3608.9
	% Fixture	60.0	0.3	60.3
Total	Lumens	5963.2	19.6	5982.9
	% Fixture	99.7	0.3	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	165.6	2.8
10°-20°	485.0	8.1
20°-30°	764.2	12.8
30°-40°	972.5	16.3
40°-50°	1123.3	18.8
50°-60°	1099.9	18.4
60°-70°	819.2	13.7
70°-80°	443.7	7.4
80°-90°	89.9	1.5
90°-100°	11.4	0.2
100°-110°	4.4	0.1
110°-120°	1.2	0.0
120°-130°	0.9	0.0
130°-140°	0.7	0.0
140°-150°	0.5	0.0
150°-160°	0.3	0.0
160°-170°	0.2	0.0
170°-180°	0.1	0.0
0°-90°	5963.2	99.7
0°-180°	5982.9	100.0



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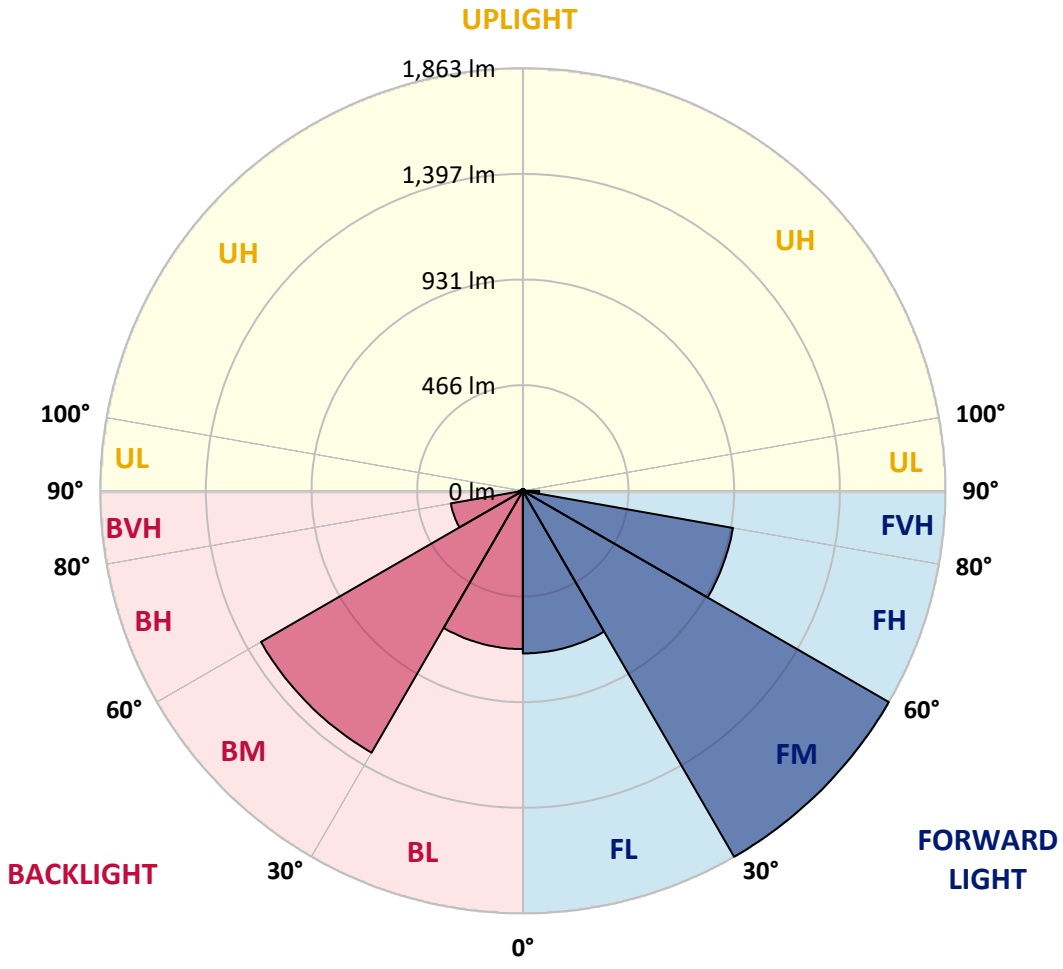
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	716.9	12.0			
FM	(30°-60°)	1862.8	31.1			
FH	(60°-80°)	940.7	15.7			G1/1800
FVH	(80°-90°)	71.8	1.2			G1/100
BL	(0°-30°)	697.8	11.7	B2/1000		
BM	(30°-60°)	1332.9	22.3	B2/2500		
BH	(60°-80°)	322.2	5.4	B1/500		G1/500
BVH	(80°-90°)	18.1	0.3			G1/100
UL	(90°-100°)	11.4	0.2		U2/50	
UH	(100°-180°)	8.2	0.1		U1/10	

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°	1742.6	*1742.6*	1742.6	1742.6	1742.6	1742.6	1742.6	1742.6	1742.6	1742.6	1742.6
2.5°	1744.8	*1747.1*	1746.0	1746.0	1743.7	1744.8	1743.7	1743.7	1742.6	1741.5	1741.5
4°	*1746.0*	*1748.2*	*1746.0*	*1746.0*	*1744.8*	*1744.8*	*1743.7*	*1741.5*	*1742.6*	*1739.2*	*1738.1*
5°	1747.1	*1748.2*	1747.1	1747.1	1744.8	1743.7	1741.5	1741.5	1740.3	1738.1	1738.1
7.5°	1744.8	*1746.0*	1746.0	1744.8	1742.6	1740.3	1739.2	1738.1	1737.0	1733.6	1733.6
10°	1740.3	*1742.6*	1740.3	1740.3	1739.2	1737.0	1733.6	1732.5	1729.1	1726.8	1725.7
12.5°	1735.8	*1737.0*	1735.8	1735.8	1733.6	1730.2	1729.1	1726.8	1722.3	1719.0	1719.0
15°	1729.1	*1731.3*	1730.2	1729.1	1728.0	1724.6	1721.2	1717.8	1714.5	1711.1	1711.1
17.5°	1721.2	*1722.3*	1723.5	1722.3	1720.1	1717.8	1714.5	1710.0	1706.6	1703.2	1702.1
20°	1712.2	*1714.5*	1714.5	1714.5	1712.2	1710.0	1705.5	1701.0	1698.7	1694.2	1693.1
22.5°	1703.2	*1705.5*	1704.3	1705.5	1704.3	1701.0	1696.5	1692.0	1687.5	1684.1	1681.8
25°	1694.2	*1694.2*	1694.2	1694.2	1694.2	1689.7	1685.2	1679.6	1675.1	1669.5	1669.5
27.5°	1683.0	*1683.0*	1684.1	1684.1	1683.0	1679.6	1674.0	1667.2	1660.5	1654.8	1652.6
30°	1672.8	*1671.7*	1674.0	1676.2	1675.1	1671.7	1665.0	1657.1	1647.0	1639.1	1632.3
32.5°	1660.5	*1663.8*	1666.1	1670.6	1671.7	1667.2	1659.3	1649.2	1639.1	1624.5	1612.1
35°	1656.0	*1656.0*	1661.6	1668.3	1670.6	1668.3	1657.1	1645.8	1631.2	1609.8	1595.2
37.5°	1651.5	*1652.6*	1661.6	1671.7	1675.1	1675.1	1662.7	1648.1	1627.8	1597.5	1579.5
40°	1649.2	*1651.5*	1662.7	1677.3	1686.3	1685.2	1670.6	1652.6	1627.8	1588.5	1566.0
42.5°	1647.0	*1651.5*	1663.8	1684.1	1697.6	1696.5	1680.7	1657.1	1625.6	1577.2	1551.3
45°	1643.6	*1647.0*	1663.8	1689.7	1707.7	1711.1	1693.1	1662.7	1625.6	1567.1	1533.3
47.5°	1633.5	*1634.6*	1657.1	1687.5	1714.5	1719.0	1701.0	1665.0	1621.1	1550.2	1510.8
50°	1606.5	*1609.8*	1635.7	1676.2	1707.7	1714.5	1698.7	1659.3	1609.8	1522.1	1474.8
52.5°	1571.6	*1571.6*	1603.1	1648.1	1686.3	1697.6	1683.0	1639.1	1581.7	1480.5	1426.5
55°	1519.8	*1527.7*	1560.3	1607.6	1649.2	1665.0	1644.7	1602.0	1535.6	1427.6	1368.0
57.5°	1461.3	*1463.6*	1497.3	1553.6	1596.3	1606.5	1589.6	1539.0	1474.8	1364.6	1293.7
60°	1377.0	*1381.5*	1424.2	1473.7	1519.8	1533.3	1512.0	1461.3	1393.8	1283.6	1211.6
62.5°	1283.6	*1290.4*	1328.6	1379.2	1423.1	1444.5	1418.6	1365.7	1299.3	1186.9	1123.9
65°	1171.1	*1173.4*	1215.0	1272.4	1316.2	1324.1	1301.6	1249.9	1183.5	1075.5	1019.2
67.5°	1041.7	*1053.0*	1093.5	1136.2	1174.5	1183.5	1167.7	1108.1	1055.2	959.6	904.5
70°	916.9	*911.2*	945.0	987.7	1022.6	1030.5	1012.5	957.4	907.9	817.9	775.1
72.5°	766.1	*761.6*	797.6	830.2	864.0	859.5	841.5	797.6	754.9	678.4	639.0
75°	614.2	*609.7*	637.9	666.0	682.9	685.1	672.7	640.1	594.0	534.4	504.0
77.5°	465.7	*470.2*	482.6	506.2	522.0	528.7	507.4	474.7	445.5	399.4	376.9
80°	331.9	*333.0*	337.5	354.4	365.6	365.6	355.5	329.6	297.0	264.4	253.1
82.5°	209.2	*213.7*	213.7	230.6	230.6	221.6	217.1	200.2	183.4	157.5	141.7
85°	114.7	*112.5*	119.2	120.4	119.2	112.5	105.7	95.6	84.4	66.4	59.6
87.5°	50.6	*49.5*	49.5	49.5	48.4	43.9	37.1	29.2	20.2	12.4	9.0
90°	39.4	*39.4*	38.2	36.0	32.6	29.2	23.6	18.0	11.2	4.5	2.2
92.5°	36.0	*36.0*	34.9	33.7	30.4	27.0	21.4	15.7	10.1	4.5	2.2
95°	31.5	*30.4*	30.4	28.1	25.9	22.5	19.1	13.5	9.0	3.4	2.2
97.5°	25.9	*24.7*	24.7	23.6	21.4	18.0	15.7	11.2	7.9	3.4	2.2
100°	19.1	*20.2*	19.1	18.0	16.9	14.6	12.4	9.0	5.6	2.2	2.2
102.5°	14.6	*14.6*	13.5	13.5	12.4	11.2	9.0	6.7	4.5	2.2	1.1
105°	10.1	*10.1*	10.1	9.0	9.0	7.9	6.7	4.5	3.4	2.2	1.1
107.5°	5.6	*5.6*	5.6	5.6	5.6	5.6	4.5	3.4	2.2	1.1	1.1

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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
110°	3.4	*3.4*	3.4	3.4	3.4	3.4	2.2	2.2	1.1	1.1	1.1
112.5°	1.1	*1.1*	2.2	2.2	2.2	2.2	2.2	1.1	1.1	1.1	1.1
115°	1.1	*1.1*	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
117.5°	0.0	*0.0*	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
120°	0.0	*0.0*	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
122.5°	0.0	*0.0*	0.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
125°	0.0	*0.0*	0.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
127.5°	0.0	*0.0*	0.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
130°	0.0	*0.0*	0.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
132.5°	0.0	*0.0*	0.0	0.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1
135°	0.0	*0.0*	0.0	0.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1
137.5°	0.0	*0.0*	0.0	0.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1
140°	0.0	*0.0*	0.0	0.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1
142.5°	0.0	*0.0*	0.0	0.0	0.0	1.1	1.1	1.1	1.1	1.1	1.1
145°	1.1	*1.1*	0.0	0.0	0.0	1.1	1.1	1.1	1.1	1.1	1.1
147.5°	1.1	*1.1*	0.0	0.0	0.0	1.1	1.1	1.1	1.1	1.1	1.1
150°	1.1	*0.0*	0.0	0.0	0.0	1.1	1.1	1.1	1.1	1.1	1.1
152.5°	0.0	*0.0*	0.0	0.0	0.0	1.1	1.1	1.1	1.1	1.1	1.1
155°	0.0	*0.0*	0.0	0.0	0.0	1.1	1.1	1.1	1.1	1.1	1.1
157.5°	0.0	*0.0*	0.0	0.0	0.0	1.1	1.1	1.1	1.1	1.1	1.1
160°	0.0	*0.0*	0.0	0.0	0.0	1.1	1.1	1.1	1.1	1.1	1.1
162.5°	0.0	*0.0*	0.0	0.0	0.0	1.1	1.1	1.1	1.1	1.1	1.1
165°	0.0	*0.0*	0.0	0.0	0.0	1.1	1.1	1.1	1.1	1.1	1.1
167.5°	0.0	*0.0*	0.0	0.0	0.0	1.1	1.1	1.1	1.1	1.1	1.1
170°	0.0	*0.0*	0.0	0.0	0.0	1.1	1.1	1.1	1.1	1.1	1.1
172.5°	0.0	*0.0*	0.0	0.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1
175°	0.0	*0.0*	0.0	0.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1
177.5°	0.0	*0.0*	0.0	0.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1
180°	1.1	*1.1*	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1

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CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1742.6	1742.6	1742.6	1742.6	1742.6	1742.6	1742.6	1742.6	1742.6	1742.6
2.5°	1740.3	1737.0	1739.2	1738.1	1739.2	1737.0	1737.0	1737.0	1738.1	1735.8
4°	*1739.2*	*1737.0*	*1737.0*	*1737.0*	*1737.0*	*1734.7*	*1734.7*	*1734.7*	*1733.6*	*1734.7*
5°	1737.0	1735.8	1734.7	1733.6	1734.7	1732.5	1731.3	1731.3	1731.3	1732.5
7.5°	1732.5	1729.1	1729.1	1725.7	1726.8	1725.7	1724.6	1725.7	1724.6	1724.6
10°	1724.6	1722.3	1721.2	1719.0	1719.0	1716.7	1715.6	1715.6	1715.6	1714.5
12.5°	1716.7	1714.5	1713.3	1711.1	1710.0	1707.7	1706.6	1707.7	1705.5	1705.5
15°	1707.7	1705.5	1704.3	1704.3	1702.1	1699.8	1698.7	1696.5	1696.5	1696.5
17.5°	1699.8	1697.6	1698.7	1696.5	1695.3	1693.1	1693.1	1688.6	1688.6	1687.5
20°	1692.0	1689.7	1689.7	1688.6	1688.6	1686.3	1683.0	1680.7	1679.6	1679.6
22.5°	1681.8	1678.5	1672.8	1665.0	1660.5	1657.1	1656.0	1652.6	1651.5	1649.2
25°	1666.1	1657.1	1644.7	1631.2	1617.7	1611.0	1608.7	1604.2	1604.2	1604.2
27.5°	1647.0	1630.1	1613.2	1593.0	1572.7	1559.2	1550.2	1545.7	1543.5	1543.5
30°	1622.2	1600.8	1577.2	1551.3	1528.8	1504.1	1488.3	1479.3	1474.8	1476.0
32.5°	1599.7	1572.7	1545.7	1513.1	1482.7	1453.5	1426.5	1413.0	1407.3	1405.1
35°	1577.2	1546.8	1514.2	1479.3	1440.0	1397.2	1361.2	1341.0	1329.7	1330.8
37.5°	1560.3	1524.3	1488.3	1445.6	1400.6	1348.8	1302.7	1270.1	1256.6	1258.9
40°	1542.3	1501.8	1462.5	1413.0	1360.1	1298.2	1238.6	1194.7	1179.0	1175.6
42.5°	1525.5	1478.2	1433.2	1380.3	1314.0	1244.2	1171.1	1119.4	1095.7	1092.4
45°	1504.1	1451.2	1402.8	1342.1	1269.0	1182.4	1096.9	1029.4	1004.6	994.5
47.5°	1476.0	1417.5	1363.5	1293.7	1213.9	1116.0	1009.1	925.9	894.4	886.5
50°	1434.3	1366.8	1311.7	1233.0	1136.2	1028.2	909.0	806.6	765.0	759.4
52.5°	1379.2	1310.6	1248.7	1158.7	1040.6	913.5	778.5	672.7	624.4	621.0
55°	1312.8	1238.6	1171.1	1069.9	931.5	784.1	643.5	509.6	462.4	456.7
57.5°	1235.2	1158.7	1085.6	960.7	801.0	636.7	473.6	345.4	300.4	289.1
60°	1149.7	1071.0	988.9	837.0	625.5	451.1	286.9	183.4	149.6	138.4
62.5°	1066.5	981.0	894.4	689.6	428.6	257.6	130.5	52.9	33.7	32.6
65°	968.6	887.6	798.7	555.7	271.1	115.9	38.2	1.1	0.0	0.0
67.5°	855.0	786.4	707.6	497.2	239.6	101.2	32.6	1.1	0.0	0.0
70°	733.5	679.5	609.7	427.5	205.9	85.5	28.1	0.0	0.0	0.0
72.5°	605.2	559.1	507.4	355.5	171.0	70.9	22.5	0.0	0.0	0.0
75°	474.7	445.5	399.4	281.2	132.7	54.0	16.9	0.0	0.0	0.0
77.5°	352.1	328.5	294.7	207.0	100.1	39.4	12.4	0.0	0.0	0.0
80°	237.4	219.4	200.2	140.6	67.5	25.9	7.9	0.0	0.0	0.0
82.5°	138.4	124.9	112.5	79.9	37.1	14.6	3.4	0.0	0.0	0.0
85°	56.2	51.7	49.5	33.7	14.6	4.5	1.1	0.0	0.0	0.0
87.5°	6.7	5.6	5.6	3.4	1.1	0.0	0.0	0.0	0.0	0.0
90°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
92.5°	1.1	1.1	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0
95°	1.1	1.1	1.1	1.1	1.1	1.1	0.0	0.0	0.0	0.0
97.5°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	0.0
100°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
102.5°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
105°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
107.5°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1

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

Scaled Data Report

REPORT NUMBER: P821233
CATALOG NUMBER: TT-D4-735-24VDC-CQ-HSS

CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
110°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
112.5°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
115°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
117.5°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
120°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
122.5°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
125°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
127.5°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
130°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
132.5°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
135°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
137.5°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	0.0	0.0
140°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	0.0	0.0
142.5°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	0.0	0.0	0.0
145°	1.1	1.1	1.1	1.1	1.1	1.1	0.0	0.0	0.0	0.0
147.5°	1.1	1.1	1.1	1.1	1.1	1.1	0.0	0.0	0.0	1.1
150°	1.1	1.1	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0
152.5°	1.1	1.1	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0
155°	1.1	1.1	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0
157.5°	1.1	1.1	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0
160°	1.1	1.1	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0
162.5°	1.1	1.1	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0
165°	1.1	1.1	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0
167.5°	1.1	1.1	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0
170°	1.1	1.1	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0
172.5°	1.1	1.1	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0
175°	1.1	1.1	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0
177.5°	1.1	1.1	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0
180°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1

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

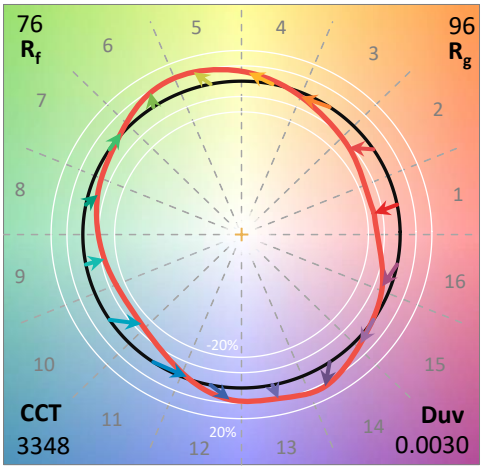
Test Information

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

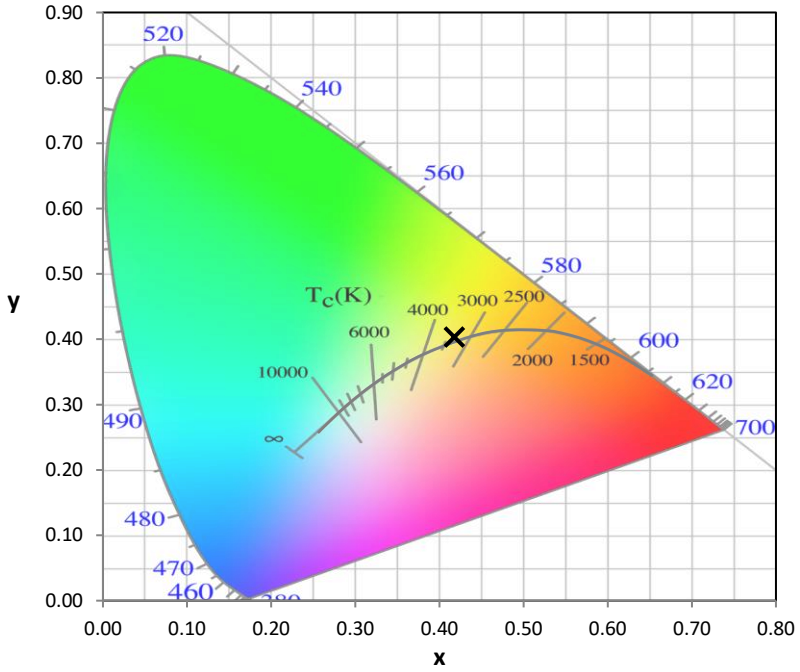
Stabilization Time:	30M
Operation Time:	1H 30M
Sphere Temperature (°C):	25.2

REPORT NUMBER: SP1-2407-176-4

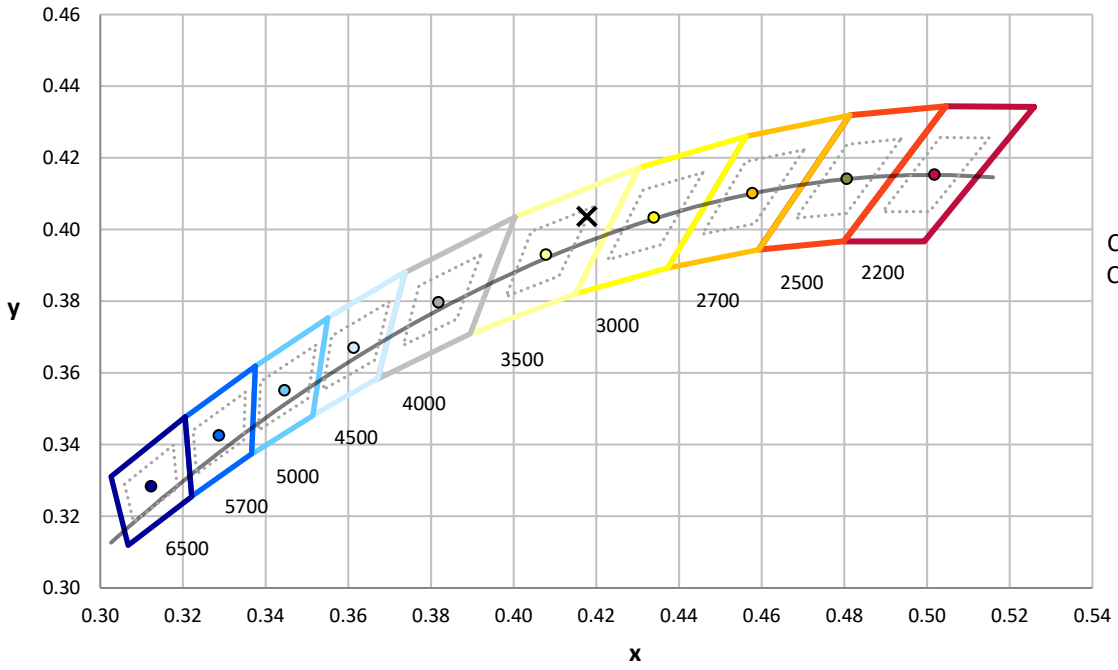
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

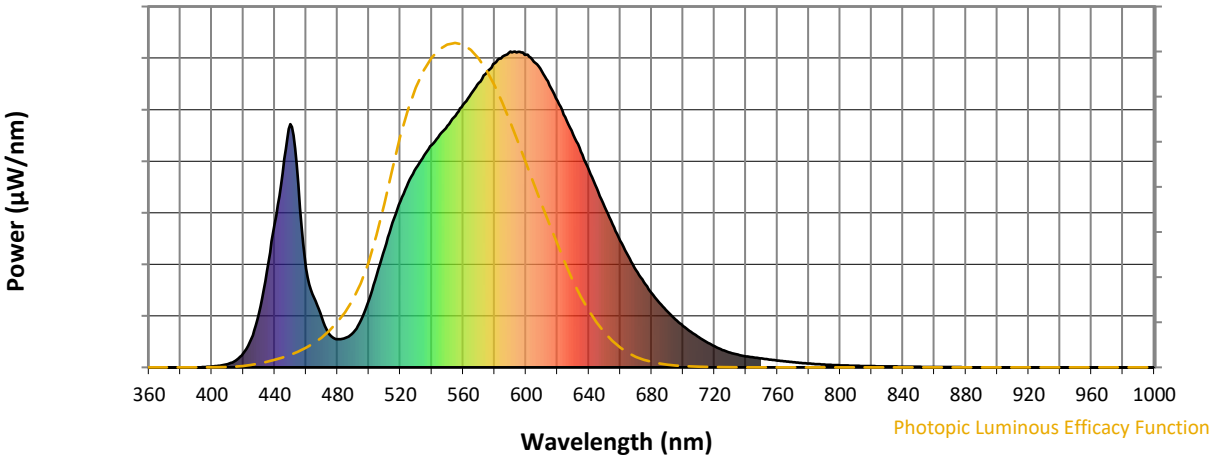


CCT = 3348K
CIE x = 0.4177
CIE y = 0.4036
Duv = 0.0030

Point lies inside the ANSI 3500K 4-step quadrangle

REPORT NUMBER: SP1-2407-176-4

Photopic Flux vs. Wavelength

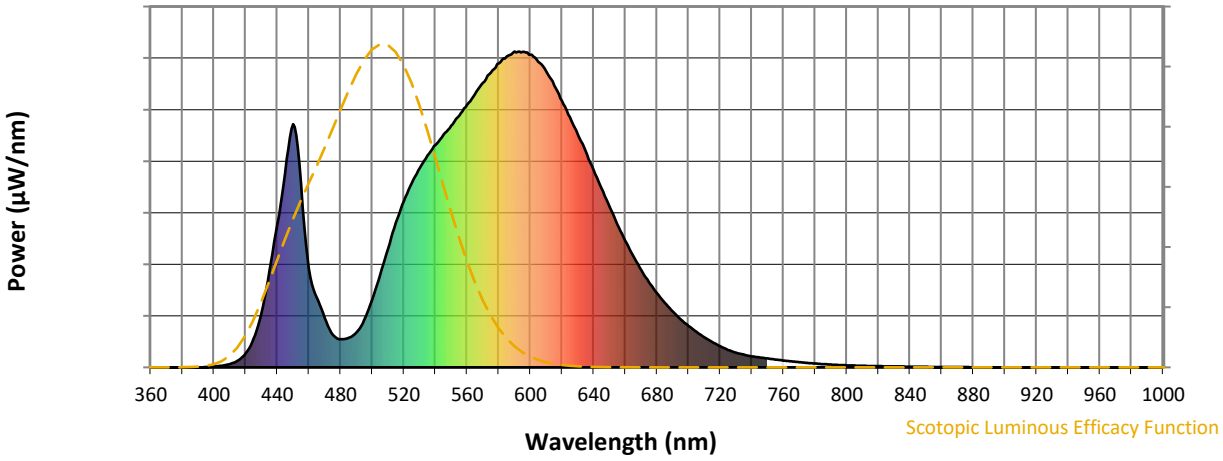


Photopic Lumens: NR

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

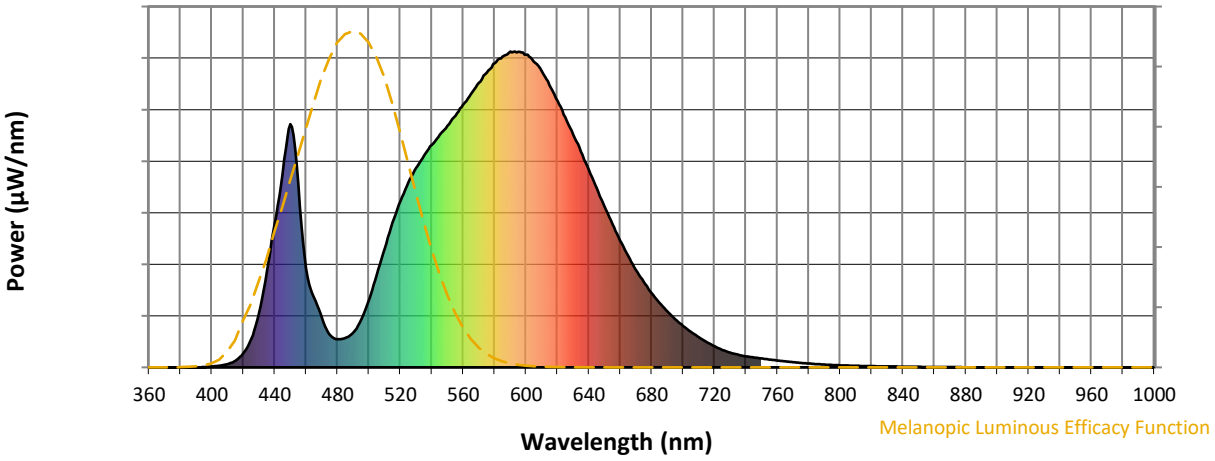


Scotopic Lumens: NR **S/P: 1.31**

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			

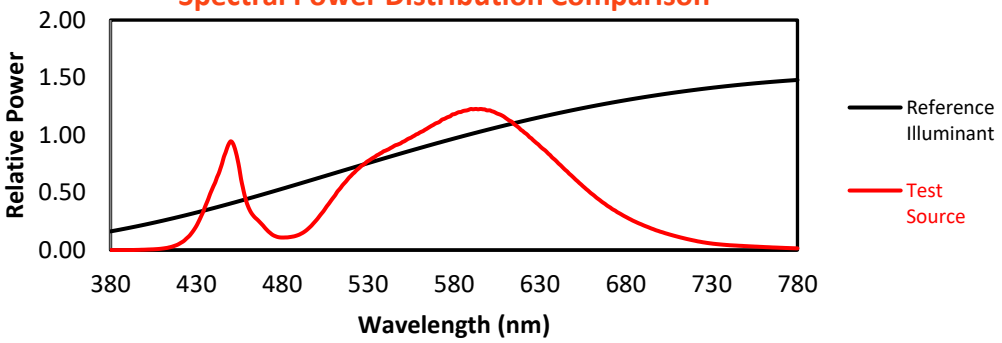
REPORT NUMBER: SP1-2407-176-4

TM-30-18

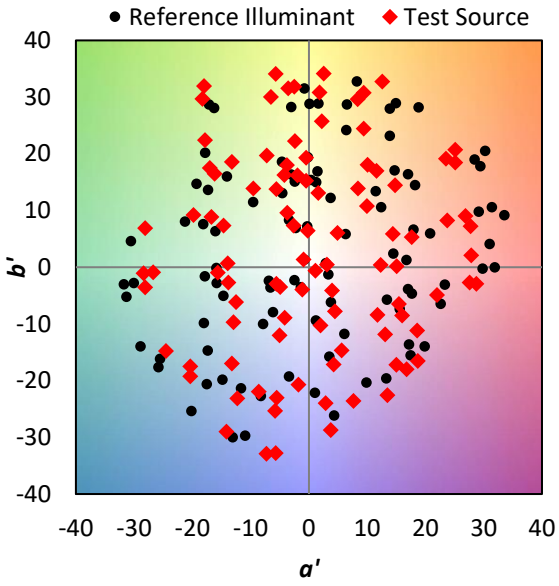
Summary

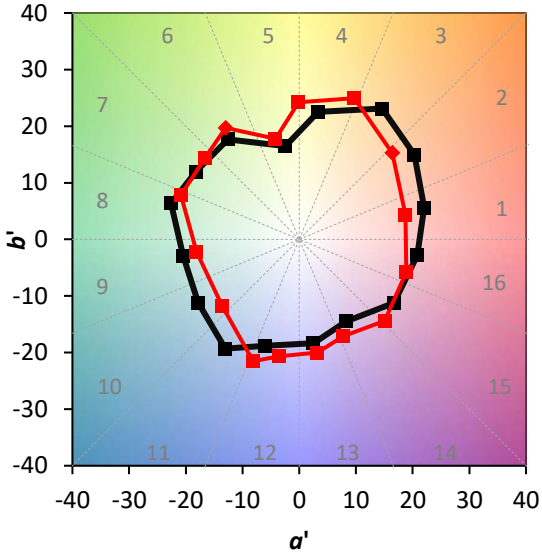
R_f = 75.8
R_g = 95.8
CIE R_a = 73.4
R_9 = -19.2

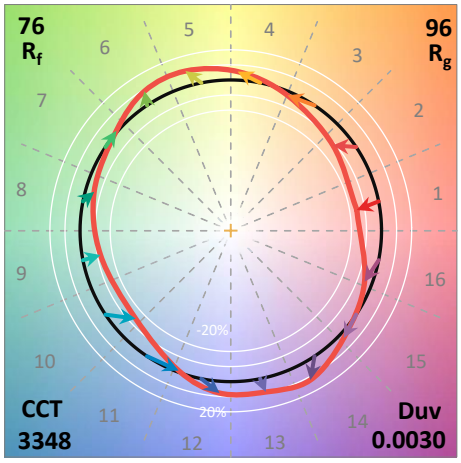
Spectral Power Distribution Comparison

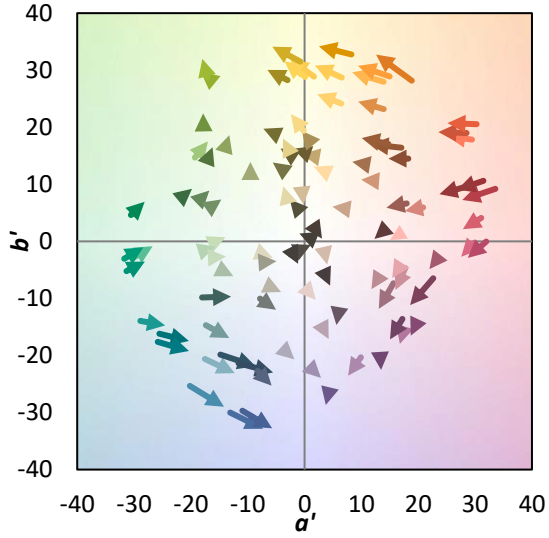


Color Vector Graphics







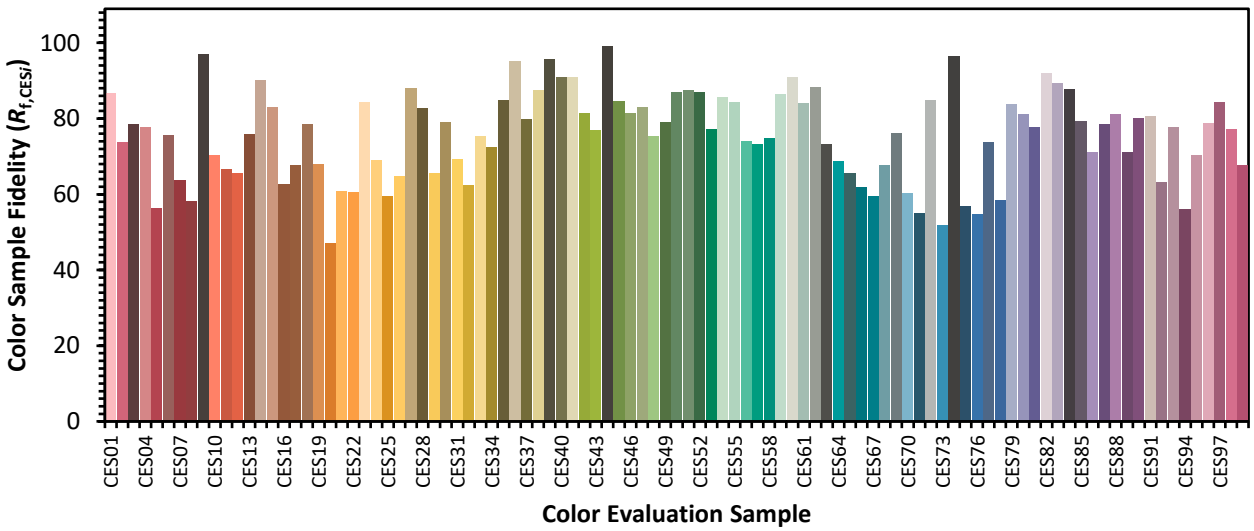


REPORT NUMBER: SP1-2407-176-4

TM-30-18

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

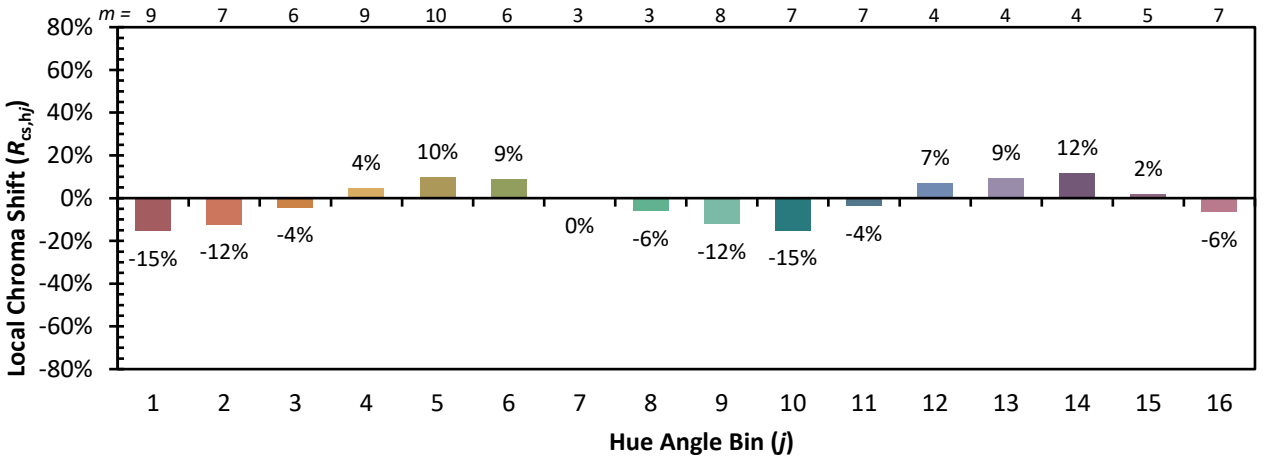
CES01 = 86	CES26 = 65	CES51 = 88	CES76 = 55
CES02 = 62	CES27 = 88	CES52 = 87	CES77 = 74
CES03 = 31	CES28 = 83	CES53 = 77	CES78 = 58
CES04 = 70	CES29 = 66	CES54 = 86	CES79 = 84
CES05 = 48	CES30 = 79	CES55 = 84	CES80 = 81
CES06 = 51	CES31 = 69	CES56 = 74	CES81 = 78
CES07 = 41	CES32 = 62	CES57 = 73	CES82 = 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	

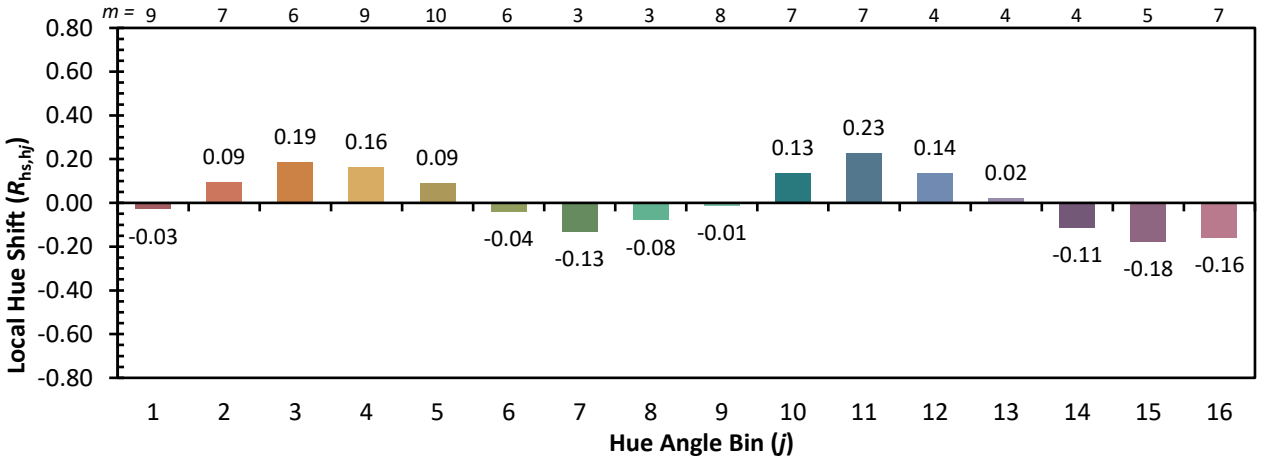


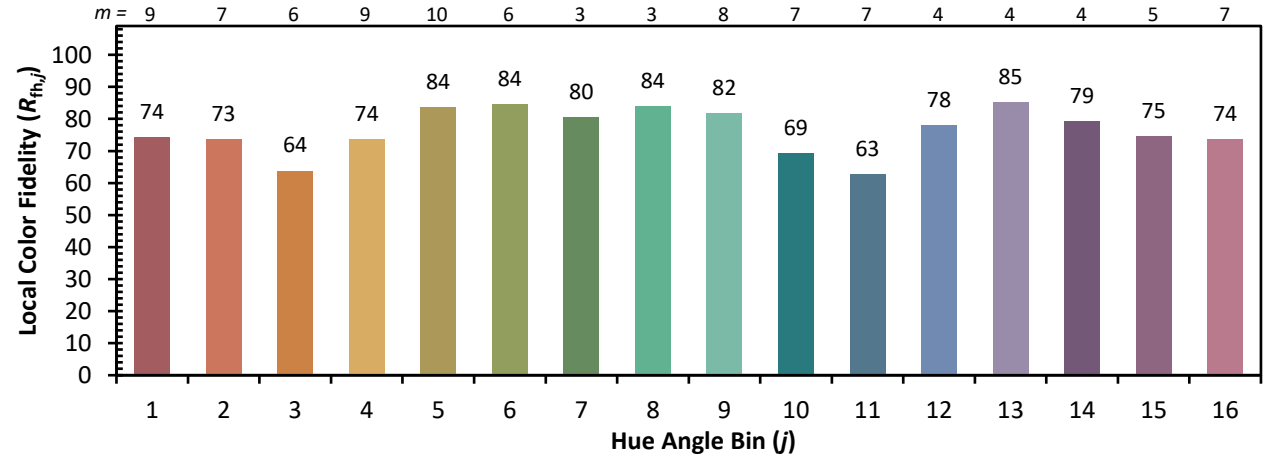
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Color Rendition by Hue-Angle Bin



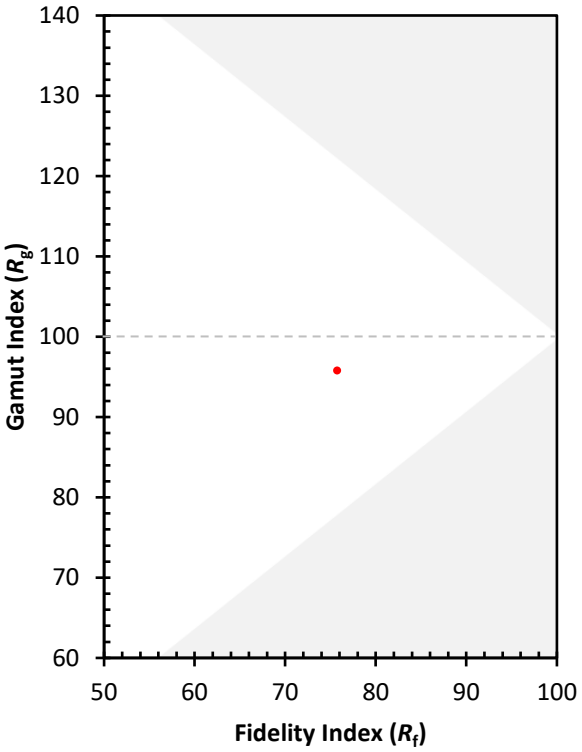


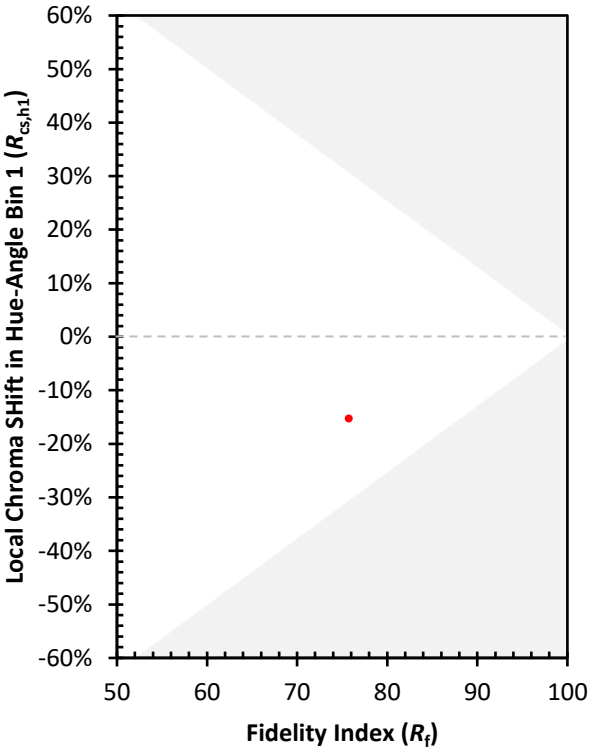


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Measure Comparisons





(END OF REPORT)