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: P821387

Luminaire Tested: **TT-D4-750-24VDC-MQ-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:	P821387
	TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2010-017-1)
Test Lab:	INNOVATION CENTER
Issue Date:	12/2/2020
Manufacturer:	COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line:	McGRAW-EDISON
Catalog Number:	TT-D4-750-24VDC-MQ-HSS
Description:	TOPTIER LED PARKING GARAGE LUMINAIRE
	5000K, 70 CRI LEDS AND MEDIUM DISTRIBUTION WITH HOUSE SIDE SHIELD
Light Source:	-
Ballast/Driver:	ELECTRONIC DRIVER

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	6736 lumens
Efficiency:	N/A
Efficacy:	118.2 lumens/watt
Luminous Opening:	Circular (Dia: 1.12' x H: 0')
IES Classification:	Type IV - Short
BUG Rating:	B2 - U2 - G3

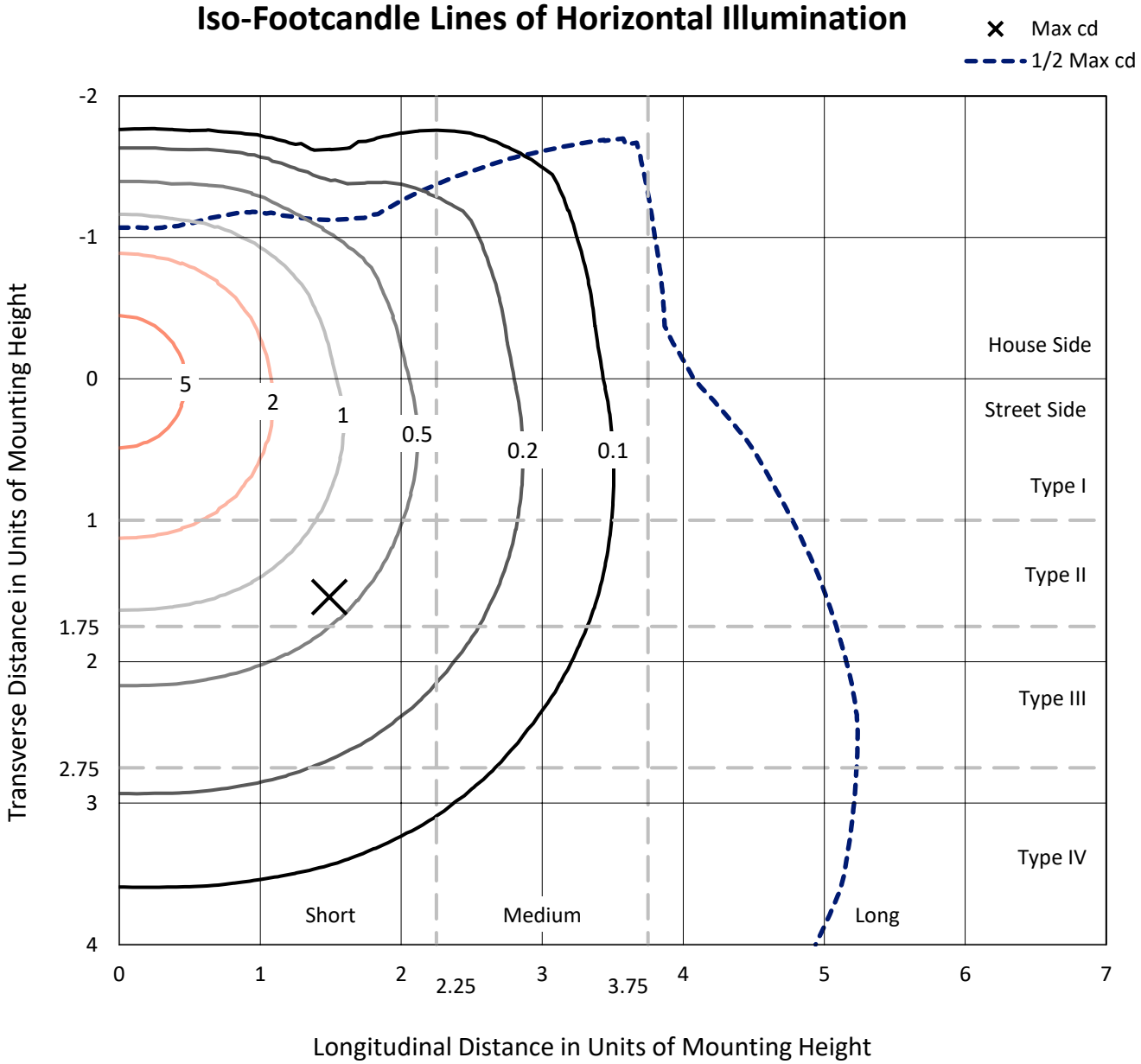
Input Watts (W):	57
Input Voltage (V):	NR
Input Current (Ain):	NR
Voltage Rise (V):	NR
Power Factor:	NR
Total Harmonic Distortion (THDi):	NR
Frequency (hertz):	60
Stabilization Time:	NR
Operation Time:	NR
Ambient Temperature (°C):	NR
Test Distance:	25 FT

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Iso-Footcandle Lines of Horizontal Illumination



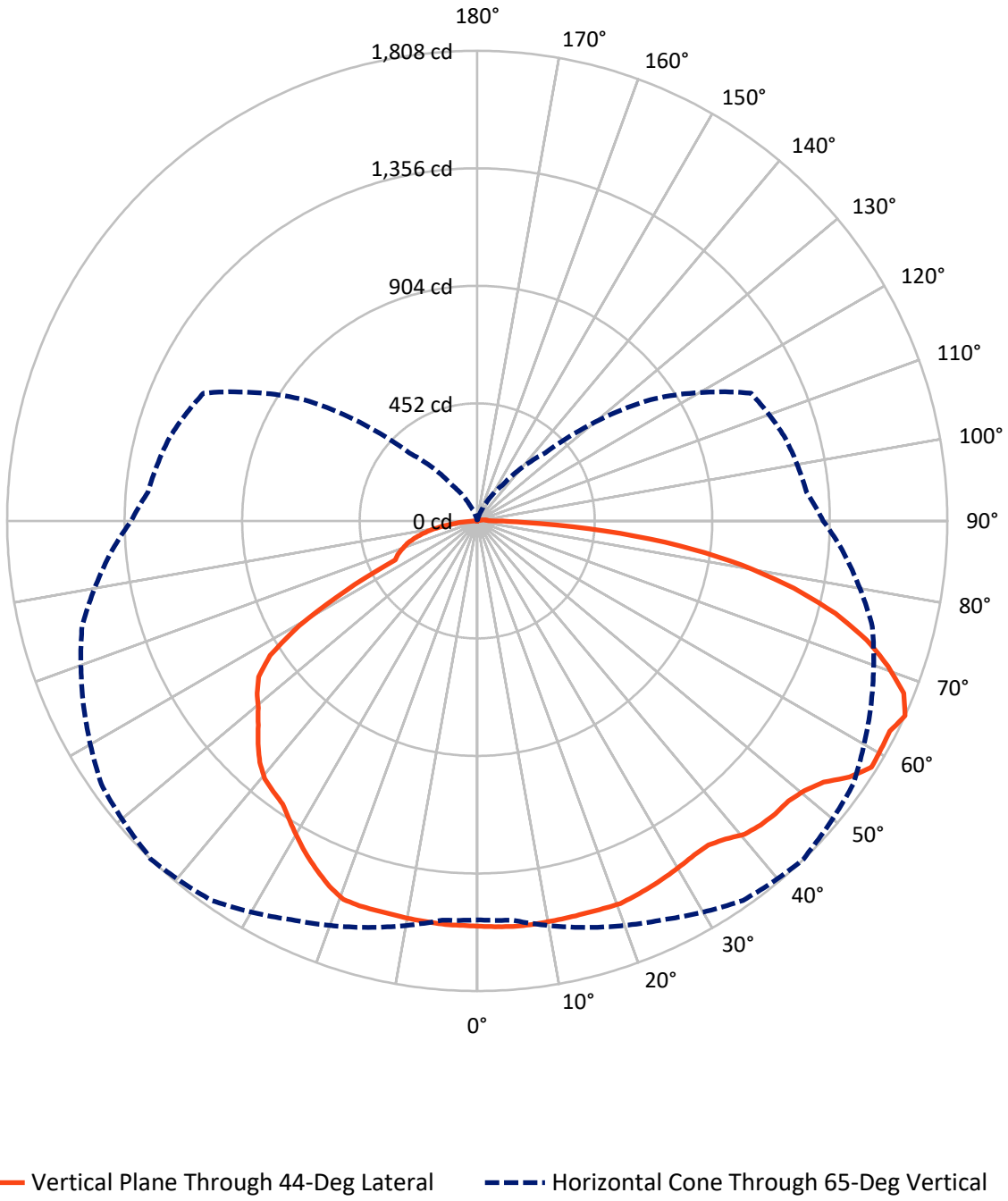
Based on 15 foot mounting height. Maximum calculated value = 6.9 fc
Type IV - Short - N/A

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Luminous Intensity Polar Plot



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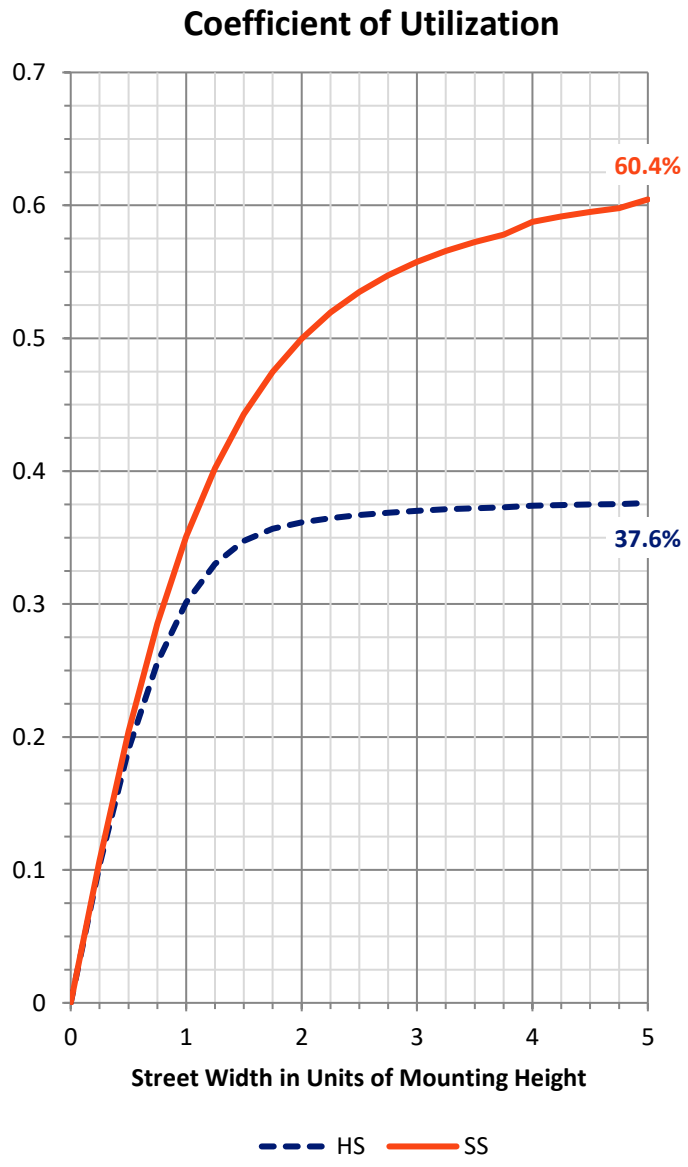
REPORT NUMBER: P821387
CATALOG NUMBER: TT-D4-750-24VDC-MQ-HSS

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2550.6	1.8	2552.3
	% Fixture	37.9	0.0	37.9
Street Side	Lumens	4160.8	22.9	4183.7
	% Fixture	61.8	0.3	62.1
Total	Lumens	6711.4	24.7	6736.0
	% Fixture	99.6	0.4	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	148.9	2.2
10°-20°	440.8	6.5
20°-30°	701.5	10.4
30°-40°	898.7	13.3
40°-50°	1064.7	15.8
50°-60°	1166.1	17.3
60°-70°	1108.4	16.5
70°-80°	882.5	13.1
80°-90°	299.8	4.5
90°-100°	15.8	0.2
100°-110°	5.2	0.1
110°-120°	1.1	0.0
120°-130°	0.7	0.0
130°-140°	0.6	0.0
140°-150°	0.5	0.0
150°-160°	0.4	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-90°	6711.4	99.6
0°-180°	6736.0	100.0



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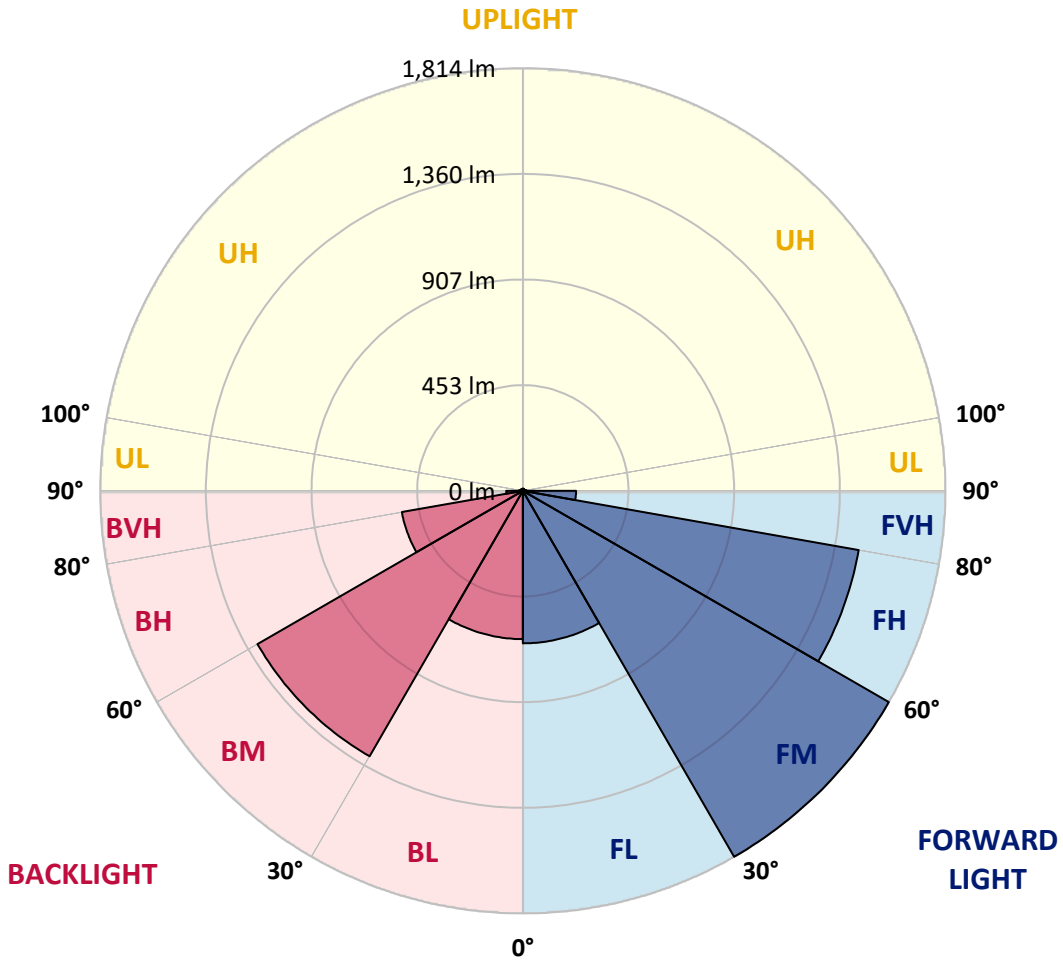
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	654.7	9.7			
FM	(30°-60°)	1813.9	26.9			
FH	(60°-80°)	1463.8	21.7			G1/1800
FVH	(80°-90°)	228.4	3.4			G3/500
BL	(0°-30°)	636.5	9.4	B2/1000		
BM	(30°-60°)	1315.6	19.5	B2/2500		
BH	(60°-80°)	527.1	7.8	B2/1000		G2/1000
BVH	(80°-90°)	71.4	1.1			G1/100
UL	(90°-100°)	15.8	0.2		U2/50	
UH	(100°-180°)	8.9	0.1		U1/10	

BUG Rating: B2-U2-G3
Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	44°	45°	55°	65°	75°	85°
0°	1559.3	1559.3	1559.3	1559.3	1559.3	1559.3	1559.3	1559.3	1559.3	1559.3	1559.3
2.5°	1565.3	1564.1	1564.1	1564.1	1564.1	1562.9	1564.1	1561.7	1562.9	1559.3	1559.3
5°	1568.9	1566.5	1567.7	1567.7	1567.7	1566.5	1567.7	1564.1	1565.3	1560.5	1559.3
7.5°	1570.1	1568.9	1568.9	1568.9	1568.9	1566.5	1567.7	1565.3	1564.1	1560.5	1558.1
10°	1570.1	1568.9	1568.9	1568.9	1567.7	1565.3	1566.5	1562.9	1562.9	1558.1	1555.8
12.5°	1570.1	1568.9	1570.1	1567.7	1567.7	1565.3	1565.3	1561.7	1561.7	1555.8	1553.4
15°	1568.9	1567.7	1567.7	1568.9	1567.7	1565.3	1565.3	1561.7	1560.5	1553.4	1551.0
17.5°	1567.7	1566.5	1567.7	1568.9	1570.1	1567.7	1568.9	1562.9	1560.5	1553.4	1549.8
20°	1568.9	1567.7	1568.9	1571.2	1571.2	1571.2	1571.2	1565.3	1560.5	1553.4	1547.4
22.5°	1565.3	1565.3	1565.3	1565.3	1567.7	1564.1	1564.1	1560.5	1554.6	1548.6	1542.7
25°	1557.0	1557.0	1558.1	1559.3	1559.3	1557.0	1555.8	1552.2	1547.4	1540.3	1533.2
27.5°	1547.4	1547.4	1548.6	1548.6	1551.0	1548.6	1547.4	1542.7	1537.9	1529.6	1521.2
30°	1536.7	1536.7	1536.7	1539.1	1540.3	1540.3	1539.1	1533.2	1527.2	1517.7	1507.0
32.5°	1524.8	1524.8	1528.4	1530.8	1532.0	1532.0	1532.0	1524.8	1517.7	1505.8	1490.3
35°	1515.3	1515.3	1520.1	1528.4	1533.2	1530.8	1529.6	1524.8	1514.1	1501.0	1476.0
37.5°	1521.2	1521.2	1532.0	1543.9	1554.6	1552.2	1552.2	1543.9	1529.6	1508.2	1477.2
40°	1535.5	1536.7	1553.4	1568.9	1582.0	1584.3	1584.3	1574.8	1553.4	1526.0	1483.2
42.5°	1539.1	1541.5	1558.1	1580.8	1592.7	1598.6	1598.6	1585.5	1562.9	1530.8	1480.8
45°	1539.1	1540.3	1559.3	1583.1	1602.2	1607.0	1607.0	1592.7	1564.1	1533.2	1472.4
47.5°	1539.1	1537.9	1554.6	1587.9	1607.0	1610.5	1610.5	1595.0	1567.7	1528.4	1460.5
50°	1535.5	1541.5	1566.5	1592.7	1626.0	1630.8	1629.6	1612.9	1574.8	1534.3	1451.0
52.5°	1543.9	1542.7	1576.0	1628.4	1658.1	1668.8	1670.0	1648.6	1609.3	1551.0	1445.1
55°	1578.4	1579.6	1611.7	1672.4	1717.7	1737.9	1735.5	1708.1	1652.2	1584.3	1461.7
57.5°	1590.3	1602.2	1648.6	1701.0	1770.0	1787.9	1787.9	1754.6	1686.7	1610.5	1473.6
60°	1566.5	1571.2	1628.4	1717.7	1780.7	1784.3	1785.5	1761.7	1690.3	1596.2	1449.8
62.5°	1560.5	1570.1	1614.1	1714.1	1754.6	1780.7	1779.5	1747.4	1686.7	1585.5	1441.5
65°	1534.3	1541.5	1618.9	1692.7	1781.9	1808.1	1802.2	1765.3	1671.2	1573.6	1415.3
67.5°	1480.8	1487.9	1559.3	1662.9	1743.8	1768.8	1774.8	1731.9	1634.3	1517.7	1359.4
70°	1391.5	1402.2	1474.8	1576.0	1661.7	1676.0	1673.6	1647.4	1549.8	1424.8	1277.2
72.5°	1266.5	1283.2	1374.8	1471.3	1545.1	1566.5	1557.0	1527.2	1447.4	1312.9	1165.3
75°	1134.4	1149.9	1222.5	1330.8	1408.2	1422.4	1415.3	1379.6	1298.7	1166.5	1033.2
77.5°	990.4	1003.5	1065.3	1176.1	1233.2	1245.1	1248.7	1201.0	1124.9	1005.8	886.8
80°	796.3	802.3	885.6	958.2	1008.2	1032.0	1029.6	993.9	917.7	818.9	699.9
82.5°	588.0	592.8	657.1	719.0	764.2	785.6	773.7	738.0	677.3	592.8	502.3
85°	360.7	352.3	404.7	451.1	478.5	492.8	480.9	460.7	407.1	340.4	277.3
87.5°	129.7	122.6	146.4	153.6	184.5	179.7	190.5	153.6	123.8	88.1	61.9
90°	57.1	57.1	55.9	53.6	48.8	44.0	42.9	35.7	26.2	16.7	6.0
92.5°	52.4	52.4	51.2	48.8	44.0	39.3	39.3	32.1	23.8	15.5	6.0
95°	44.0	44.0	42.9	40.5	36.9	33.3	33.3	26.2	20.2	13.1	4.8
97.5°	34.5	34.5	33.3	32.1	28.6	26.2	26.2	21.4	15.5	9.5	3.6
100°	26.2	26.2	25.0	23.8	22.6	20.2	19.0	15.5	11.9	7.1	2.4
102.5°	19.0	19.0	19.0	17.9	15.5	14.3	14.3	11.9	8.3	6.0	2.4
105°	13.1	13.1	13.1	11.9	10.7	9.5	9.5	8.3	6.0	3.6	1.2
107.5°	8.3	8.3	8.3	8.3	7.1	6.0	6.0	4.8	3.6	2.4	1.2
110°	4.8	3.6	4.8	4.8	4.8	3.6	3.6	2.4	2.4	1.2	1.2

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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	44°	45°	55°	65°	75°	85°
112.5°	2.4	2.4	2.4	2.4	2.4	*2.4*	2.4	1.2	1.2	1.2	1.2
115°	1.2	1.2	1.2	2.4	2.4	*1.2*	1.2	1.2	1.2	1.2	1.2
117.5°	0.0	1.2	1.2	1.2	1.2	*1.2*	1.2	1.2	1.2	1.2	1.2
120°	0.0	0.0	1.2	1.2	1.2	*1.2*	1.2	1.2	1.2	1.2	1.2
122.5°	0.0	0.0	0.0	1.2	1.2	*1.2*	1.2	1.2	1.2	1.2	1.2
125°	0.0	0.0	0.0	1.2	1.2	*1.2*	1.2	1.2	1.2	1.2	1.2
127.5°	0.0	0.0	0.0	1.2	1.2	*1.2*	1.2	1.2	1.2	1.2	1.2
130°	0.0	0.0	0.0	1.2	1.2	*1.2*	1.2	1.2	1.2	1.2	1.2
132.5°	0.0	0.0	0.0	1.2	1.2	*1.2*	1.2	1.2	1.2	1.2	1.2
135°	0.0	0.0	0.0	0.0	1.2	*1.2*	1.2	1.2	1.2	1.2	1.2
137.5°	0.0	0.0	0.0	0.0	1.2	*1.2*	1.2	1.2	1.2	1.2	1.2
140°	0.0	1.2	1.2	0.0	0.0	*1.2*	1.2	1.2	1.2	1.2	1.2
142.5°	1.2	1.2	1.2	1.2	1.2	*1.2*	1.2	1.2	1.2	1.2	1.2
145°	1.2	1.2	1.2	1.2	1.2	*1.2*	1.2	1.2	1.2	1.2	1.2
147.5°	1.2	1.2	0.0	0.0	1.2	*1.2*	1.2	1.2	1.2	1.2	1.2
150°	1.2	1.2	1.2	0.0	0.0	*1.2*	1.2	1.2	1.2	1.2	1.2
152.5°	1.2	1.2	1.2	1.2	1.2	*1.2*	1.2	1.2	1.2	1.2	1.2
155°	1.2	1.2	1.2	1.2	1.2	*1.2*	1.2	1.2	1.2	1.2	1.2
157.5°	1.2	1.2	1.2	0.0	1.2	*1.2*	1.2	1.2	1.2	1.2	1.2
160°	1.2	1.2	1.2	1.2	1.2	*1.2*	1.2	1.2	1.2	1.2	1.2
162.5°	1.2	1.2	1.2	1.2	1.2	*1.2*	1.2	1.2	1.2	1.2	1.2
165°	1.2	1.2	1.2	1.2	1.2	*1.2*	1.2	1.2	1.2	1.2	1.2
167.5°	1.2	1.2	1.2	1.2	1.2	*1.2*	1.2	1.2	1.2	1.2	1.2
170°	1.2	1.2	1.2	1.2	1.2	*1.2*	1.2	1.2	1.2	1.2	1.2
172.5°	1.2	1.2	1.2	1.2	1.2	*1.2*	1.2	1.2	1.2	1.2	1.2
175°	1.2	1.2	1.2	1.2	1.2	*1.2*	1.2	1.2	1.2	1.2	1.2
177.5°	1.2	1.2	1.2	1.2	1.2	*1.2*	1.2	1.2	1.2	1.2	1.2
180°	1.2	1.2	1.2	1.2	1.2	*1.2*	1.2	1.2	1.2	1.2	1.2

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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1559.3	1559.3	1559.3	1559.3	1559.3	1559.3	1559.3	1559.3	1559.3	1559.3	1559.3
2.5°	1559.3	1558.1	1557.0	1558.1	1557.0	1557.0	1555.8	1555.8	1554.6	1554.6	1553.4
5°	1559.3	1558.1	1557.0	1558.1	1555.8	1557.0	1557.0	1555.8	1554.6	1553.4	1552.2
7.5°	1558.1	1558.1	1555.8	1557.0	1554.6	1554.6	1553.4	1553.4	1552.2	1552.2	1551.0
10°	1555.8	1554.6	1554.6	1554.6	1552.2	1552.2	1551.0	1549.8	1549.8	1548.6	1547.4
12.5°	1553.4	1552.2	1551.0	1551.0	1549.8	1548.6	1547.4	1547.4	1546.2	1545.1	1543.9
15°	1549.8	1548.6	1548.6	1548.6	1547.4	1547.4	1546.2	1545.1	1542.7	1541.5	1540.3
17.5°	1548.6	1547.4	1548.6	1548.6	1547.4	1548.6	1546.2	1543.9	1541.5	1540.3	1539.1
20°	1547.4	1547.4	1547.4	1546.2	1545.1	1543.9	1542.7	1541.5	1540.3	1539.1	1537.9
22.5°	1541.5	1540.3	1537.9	1530.8	1522.4	1516.5	1515.3	1517.7	1517.7	1517.7	1514.1
25°	1530.8	1527.2	1517.7	1504.6	1490.3	1480.8	1474.8	1474.8	1473.6	1471.3	1470.1
27.5°	1517.7	1510.5	1493.9	1477.2	1457.0	1445.1	1430.8	1422.4	1418.9	1417.7	1415.3
30°	1499.8	1489.1	1467.7	1446.3	1421.3	1404.6	1382.0	1367.7	1359.4	1355.8	1353.4
32.5°	1478.4	1467.7	1442.7	1416.5	1386.7	1362.9	1334.4	1311.7	1296.3	1289.1	1285.6
35°	1464.1	1448.6	1420.1	1389.1	1359.4	1324.8	1290.3	1259.4	1235.6	1227.2	1222.5
37.5°	1458.2	1443.9	1412.9	1382.0	1348.6	1307.0	1266.5	1222.5	1190.3	1176.1	1171.3
40°	1461.7	1443.9	1409.4	1376.0	1336.7	1290.3	1236.8	1182.0	1140.3	1120.1	1115.3
42.5°	1453.4	1433.2	1392.7	1357.0	1308.2	1255.8	1190.3	1127.2	1071.3	1054.6	1047.5
45°	1439.1	1414.1	1370.1	1324.8	1273.7	1209.4	1141.5	1060.6	993.9	973.7	967.7
47.5°	1424.8	1390.3	1337.9	1296.3	1234.4	1159.4	1079.6	989.2	905.8	885.6	882.0
50°	1403.4	1371.3	1315.3	1266.5	1203.4	1116.5	1026.1	913.0	818.9	784.4	774.9
52.5°	1393.9	1352.2	1298.7	1260.6	1184.4	1085.6	971.3	849.9	714.2	671.3	661.8
55°	1403.4	1351.0	1293.9	1257.0	1168.9	1046.3	905.8	751.1	594.0	548.7	535.7
57.5°	1386.7	1341.5	1284.4	1242.7	1128.4	965.4	810.6	611.8	448.8	390.4	385.7
60°	1365.3	1301.0	1247.5	1209.4	1043.9	813.0	630.9	435.7	270.2	220.2	210.7
62.5°	1357.0	1290.3	1228.4	1182.0	930.8	597.5	384.5	220.2	111.9	78.6	71.4
65°	*1330.8*	*1271.3*	*1227.2*	*1161.8*	*813.0*	*369.0*	*165.5*	*65.5*	*4.8*	*3.6*	*3.6*
67.5°	1280.8	1220.1	1190.3	1152.2	801.1	352.3	150.0	59.5	2.4	0.0	0.0
70°	1195.1	1147.5	1127.2	1107.0	766.6	326.2	136.9	53.6	1.2	0.0	0.0
72.5°	1082.0	1049.9	1046.3	1043.9	716.6	301.2	122.6	47.6	1.2	0.0	0.0
75°	968.9	929.7	935.6	949.9	654.7	266.6	105.9	41.7	1.2	0.0	0.0
77.5°	826.1	797.5	811.8	835.6	573.7	226.2	86.9	33.3	1.2	0.0	0.0
80°	649.9	630.9	663.0	684.4	469.0	179.7	65.5	23.8	0.0	0.0	0.0
82.5°	461.8	451.1	480.9	508.3	348.8	127.4	45.2	15.5	0.0	0.0	0.0
85°	248.8	242.8	271.4	301.2	209.5	72.6	22.6	7.1	0.0	0.0	0.0
87.5°	61.9	57.1	58.3	70.2	51.2	15.5	3.6	1.2	0.0	0.0	0.0
90°	1.2	1.2	1.2	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
92.5°	1.2	1.2	1.2	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	1.2	1.2	1.2	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
97.5°	1.2	1.2	1.2	1.2	1.2	0.0	0.0	0.0	0.0	0.0	0.0
100°	1.2	1.2	1.2	1.2	1.2	1.2	0.0	0.0	0.0	0.0	0.0
102.5°	1.2	1.2	1.2	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105°	1.2	1.2	1.2	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	1.2	1.2	1.2	1.2	1.2	1.2	0.0	0.0	0.0	0.0	0.0
110°	1.2	1.2	1.2	1.2	1.2	1.2	0.0	0.0	0.0	0.0	0.0

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

Scaled Data Report

REPORT NUMBER: P821387
CATALOG NUMBER: TT-D4-750-24VDC-MQ-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
112.5°	1.2	1.2	1.2	1.2	1.2	1.2	0.0	0.0	0.0	0.0	0.0
115°	1.2	1.2	1.2	1.2	1.2	1.2	0.0	0.0	0.0	0.0	0.0
117.5°	1.2	1.2	1.2	1.2	1.2	0.0	0.0	0.0	0.0	0.0	0.0
120°	1.2	1.2	1.2	1.2	1.2	1.2	0.0	0.0	0.0	0.0	0.0
122.5°	1.2	1.2	1.2	1.2	1.2	1.2	0.0	0.0	0.0	0.0	0.0
125°	1.2	1.2	1.2	1.2	1.2	1.2	0.0	0.0	0.0	0.0	0.0
127.5°	1.2	1.2	1.2	1.2	1.2	1.2	0.0	0.0	0.0	0.0	0.0
130°	1.2	1.2	1.2	1.2	1.2	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	1.2	1.2	1.2	1.2	1.2	1.2	0.0	0.0	0.0	0.0	0.0
135°	1.2	1.2	1.2	1.2	1.2	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	1.2	1.2	1.2	1.2	1.2	0.0	0.0	0.0	0.0	0.0	0.0
140°	1.2	1.2	1.2	1.2	1.2	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	1.2	1.2	1.2	1.2	1.2	0.0	0.0	0.0	0.0	0.0	0.0
145°	1.2	1.2	1.2	1.2	1.2	1.2	0.0	0.0	0.0	0.0	0.0
147.5°	1.2	1.2	1.2	1.2	1.2	0.0	0.0	0.0	0.0	0.0	0.0
150°	1.2	1.2	1.2	1.2	1.2	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	1.2	1.2	1.2	1.2	1.2	0.0	0.0	0.0	0.0	0.0	0.0
155°	1.2	1.2	1.2	1.2	1.2	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	1.2	1.2	1.2	1.2	1.2	0.0	0.0	0.0	0.0	0.0	0.0
160°	1.2	1.2	1.2	1.2	1.2	1.2	0.0	0.0	0.0	0.0	0.0
162.5°	1.2	1.2	1.2	1.2	1.2	1.2	0.0	0.0	0.0	0.0	0.0
165°	1.2	1.2	1.2	1.2	1.2	1.2	0.0	0.0	0.0	0.0	0.0
167.5°	1.2	1.2	1.2	1.2	1.2	1.2	0.0	0.0	0.0	0.0	0.0
170°	1.2	1.2	1.2	1.2	1.2	1.2	0.0	0.0	0.0	0.0	0.0
172.5°	1.2	1.2	1.2	1.2	1.2	1.2	0.0	0.0	0.0	0.0	0.0
175°	1.2	1.2	1.2	1.2	1.2	1.2	0.0	0.0	0.0	0.0	0.0
177.5°	1.2	1.2	1.2	1.2	1.2	1.2	0.0	0.0	0.0	0.0	0.0
180°	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2

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: SP1-2407-176-6

Test Date: 09/26/2024

Luminaire Tested: MEM2-HTN-VA-30-750-U-WQ

Data in this report applies to families of products including MEM2-HTN-VA-30-750-U-WQ

Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

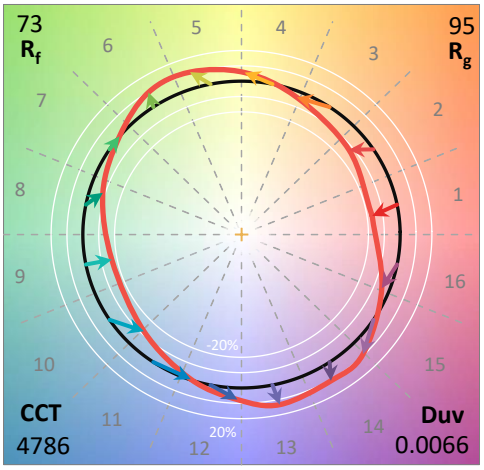
Test Information

Test Method:	LM-79-2019
Report Number:	SP1-2407-176-6
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-30-750-U-WQ**
Description:	EPIC MODERN VISUAL COMFORT 30W WAVESTREAM WIDE

Spectral Parameters

CCT (K):	4786
CIE u':	0.2093
CIE v':	0.4953
Duv:	0.0066
CIE x:	0.3533
CIE y:	0.3716
CIE z:	0.2751
Peak Wavelength (nm):	449
Dominant Wavelength (nm):	570
Purity:	17.53512
Rf:	73
Rg:	94.6

CRI (Ra):	70.9				
R1:	67.8	R9:	-29.8		
R2:	75.1	R10:	40.9		
R3:	80.6	R11:	67.4		
R4:	71.6	R12:	35.3		
R5:	67.8	R13:	68.5		
R6:	65.4	R14:	89.0		
R7:	82.0	R15:	60.9		
R8:	57.0				



Test Conditions

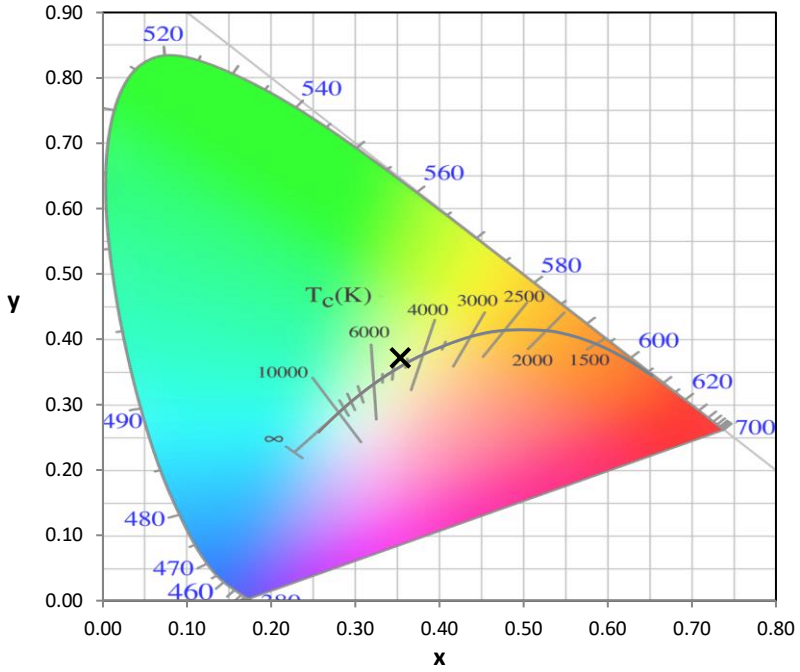
Stabilization Time:	45M
Operation Time:	1H 45M
Sphere Temperature (°C):	25.2

REPORT NUMBER: SP1-2407-176-6

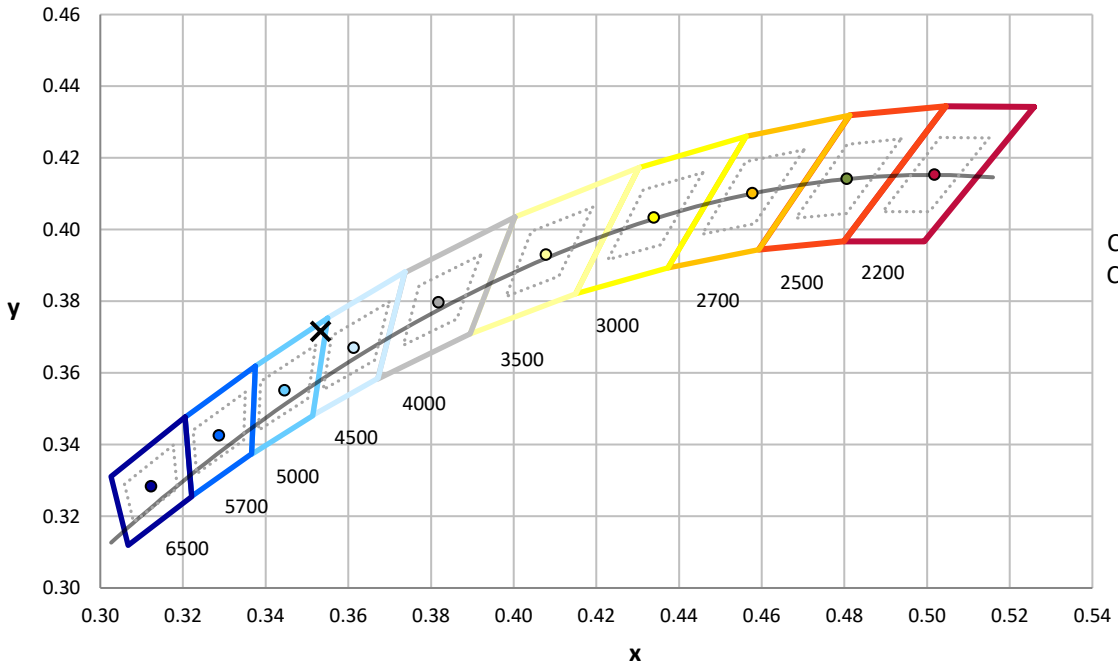
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

REPORT NUMBER: SP1-2407-176-6

CIE 1931 Chromaticity Diagram



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

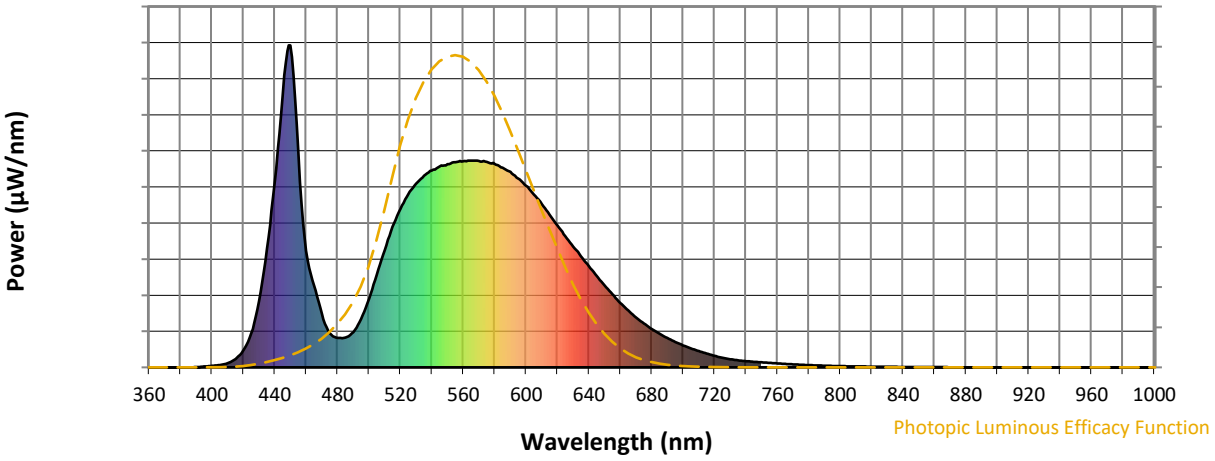


CCT = 4786K
CIE x = 0.3533
CIE y = 0.3716
Duv = 0.0066

Point lies inside the ANSI 5000K 7-step quadrangle

REPORT NUMBER: SP1-2407-176-6

Photopic Flux vs. Wavelength

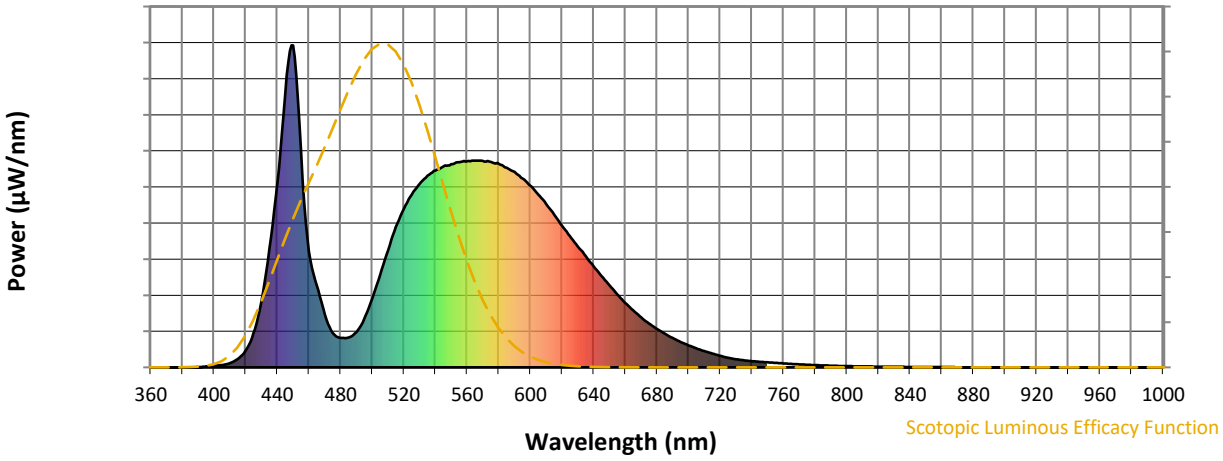


Photopic Lumens: NR

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	440	NR	750	16	NR	880	0	NR
365	0	NR	495	150	NR	625	407	NR	755	14	NR	885	0	NR
370	0	NR	500	213	NR	630	375	NR	760	12	NR	890	0	NR
375	0	NR	505	288	NR	635	345	NR	765	11	NR	895	0	NR
380	0	NR	510	364	NR	640	314	NR	770	9	NR	900	0	NR
385	0	NR	515	436	NR	645	283	NR	775	8	NR	905	0	NR
390	1	NR	520	492	NR	650	254	NR	780	7	NR	910	0	NR
395	3	NR	525	537	NR	655	227	NR	785	6	NR	915	0	NR
400	5	NR	530	570	NR	660	200	NR	790	5	NR	920	0	NR
405	7	NR	535	595	NR	665	177	NR	795	4	NR	925	0	NR
410	13	NR	540	611	NR	670	155	NR	800	4	NR	930	0	NR
415	25	NR	545	624	NR	675	136	NR	805	3	NR	935	0	NR
420	52	NR	550	631	NR	680	119	NR	810	3	NR	940	0	NR
425	106	NR	555	637	NR	685	104	NR	815	3	NR	945	0	NR
430	204	NR	560	640	NR	690	91	NR	820	2	NR	950	0	NR
435	369	NR	565	642	NR	695	79	NR	825	2	NR	955	0	NR
440	573	NR	570	641	NR	700	68	NR	830	2	NR	960	0	NR
445	844	NR	575	638	NR	705	59	NR	835	2	NR	965	0	NR
450	999	NR	580	632	NR	710	50	NR	840	1	NR	970	0	NR
455	668	NR	585	620	NR	715	43	NR	845	1	NR	975	0	NR
460	361	NR	590	607	NR	720	36	NR	850	1	NR	980	0	NR
465	255	NR	595	586	NR	725	30	NR	855	1	NR	985	0	NR
470	165	NR	600	564	NR	730	25	NR	860	1	NR	990	0	NR
475	106	NR	605	537	NR	735	22	NR	865	1	NR	995	0	NR
480	91	NR	610	507	NR	740	19	NR	870	0	NR	1000	0	NR
485	93	NR	615	474	NR	745	17	NR	875	0	NR			

REPORT NUMBER: SP1-2407-176-6

Scotopic Flux vs. Wavelength

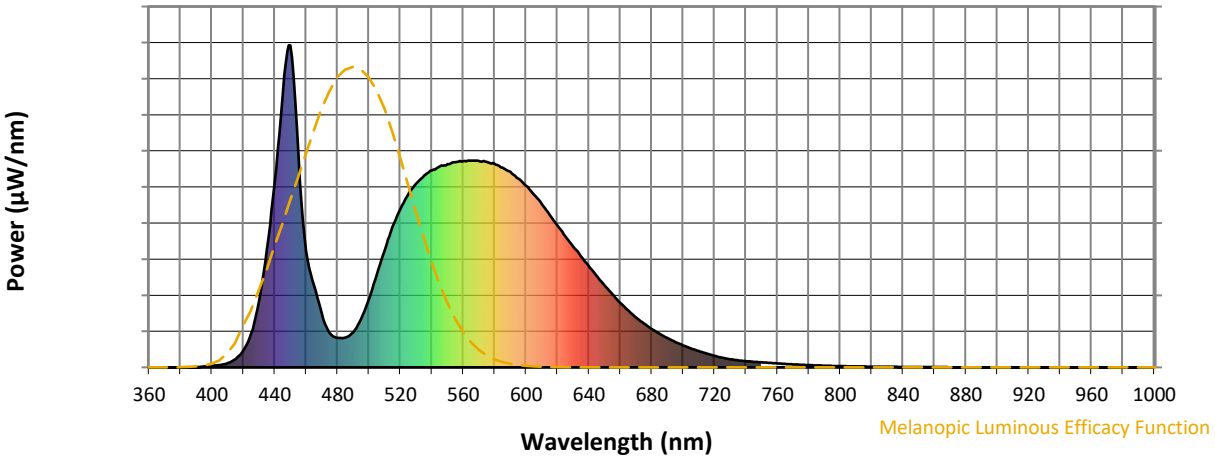


Scotopic Lumens: NR **S/P: 1.69**

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	440	NR	750	16	NR	880	0	NR
365	0	NR	495	150	NR	625	407	NR	755	14	NR	885	0	NR
370	0	NR	500	213	NR	630	375	NR	760	12	NR	890	0	NR
375	0	NR	505	288	NR	635	345	NR	765	11	NR	895	0	NR
380	0	NR	510	364	NR	640	314	NR	770	9	NR	900	0	NR
385	0	NR	515	436	NR	645	283	NR	775	8	NR	905	0	NR
390	1	NR	520	492	NR	650	254	NR	780	7	NR	910	0	NR
395	3	NR	525	537	NR	655	227	NR	785	6	NR	915	0	NR
400	5	NR	530	570	NR	660	200	NR	790	5	NR	920	0	NR
405	7	NR	535	595	NR	665	177	NR	795	4	NR	925	0	NR
410	13	NR	540	611	NR	670	155	NR	800	4	NR	930	0	NR
415	25	NR	545	624	NR	675	136	NR	805	3	NR	935	0	NR
420	52	NR	550	631	NR	680	119	NR	810	3	NR	940	0	NR
425	106	NR	555	637	NR	685	104	NR	815	3	NR	945	0	NR
430	204	NR	560	640	NR	690	91	NR	820	2	NR	950	0	NR
435	369	NR	565	642	NR	695	79	NR	825	2	NR	955	0	NR
440	573	NR	570	641	NR	700	68	NR	830	2	NR	960	0	NR
445	844	NR	575	638	NR	705	59	NR	835	2	NR	965	0	NR
450	999	NR	580	632	NR	710	50	NR	840	1	NR	970	0	NR
455	668	NR	585	620	NR	715	43	NR	845	1	NR	975	0	NR
460	361	NR	590	607	NR	720	36	NR	850	1	NR	980	0	NR
465	255	NR	595	586	NR	725	30	NR	855	1	NR	985	0	NR
470	165	NR	600	564	NR	730	25	NR	860	1	NR	990	0	NR
475	106	NR	605	537	NR	735	22	NR	865	1	NR	995	0	NR
480	91	NR	610	507	NR	740	19	NR	870	0	NR	1000	0	NR
485	93	NR	615	474	NR	745	17	NR	875	0	NR			

REPORT NUMBER: SP1-2407-176-6

Melanopic Flux vs. Wavelength



Melanopic Lumens: NR **M/P: 3.36**

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	440	NR	750	16	NR	880	0	NR
365	0	NR	495	150	NR	625	407	NR	755	14	NR	885	0	NR
370	0	NR	500	213	NR	630	375	NR	760	12	NR	890	0	NR
375	0	NR	505	288	NR	635	345	NR	765	11	NR	895	0	NR
380	0	NR	510	364	NR	640	314	NR	770	9	NR	900	0	NR
385	0	NR	515	436	NR	645	283	NR	775	8	NR	905	0	NR
390	1	NR	520	492	NR	650	254	NR	780	7	NR	910	0	NR
395	3	NR	525	537	NR	655	227	NR	785	6	NR	915	0	NR
400	5	NR	530	570	NR	660	200	NR	790	5	NR	920	0	NR
405	7	NR	535	595	NR	665	177	NR	795	4	NR	925	0	NR
410	13	NR	540	611	NR	670	155	NR	800	4	NR	930	0	NR
415	25	NR	545	624	NR	675	136	NR	805	3	NR	935	0	NR
420	52	NR	550	631	NR	680	119	NR	810	3	NR	940	0	NR
425	106	NR	555	637	NR	685	104	NR	815	3	NR	945	0	NR
430	204	NR	560	640	NR	690	91	NR	820	2	NR	950	0	NR
435	369	NR	565	642	NR	695	79	NR	825	2	NR	955	0	NR
440	573	NR	570	641	NR	700	68	NR	830	2	NR	960	0	NR
445	844	NR	575	638	NR	705	59	NR	835	2	NR	965	0	NR
450	999	NR	580	632	NR	710	50	NR	840	1	NR	970	0	NR
455	668	NR	585	620	NR	715	43	NR	845	1	NR	975	0	NR
460	361	NR	590	607	NR	720	36	NR	850	1	NR	980	0	NR
465	255	NR	595	586	NR	725	30	NR	855	1	NR	985	0	NR
470	165	NR	600	564	NR	730	25	NR	860	1	NR	990	0	NR
475	106	NR	605	537	NR	735	22	NR	865	1	NR	995	0	NR
480	91	NR	610	507	NR	740	19	NR	870	0	NR	1000	0	NR
485	93	NR	615	474	NR	745	17	NR	875	0	NR			

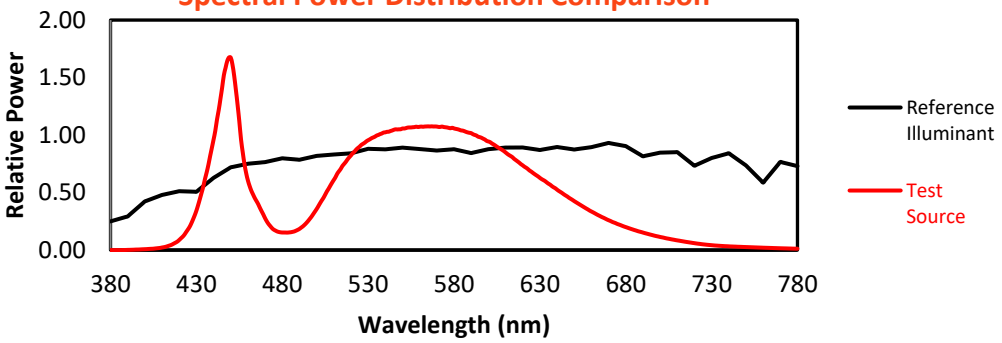
REPORT NUMBER: SP1-2407-176-6

TM-30-18

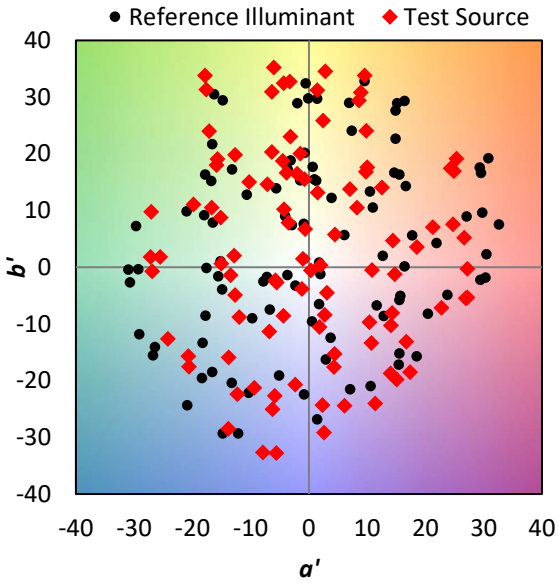
Summary

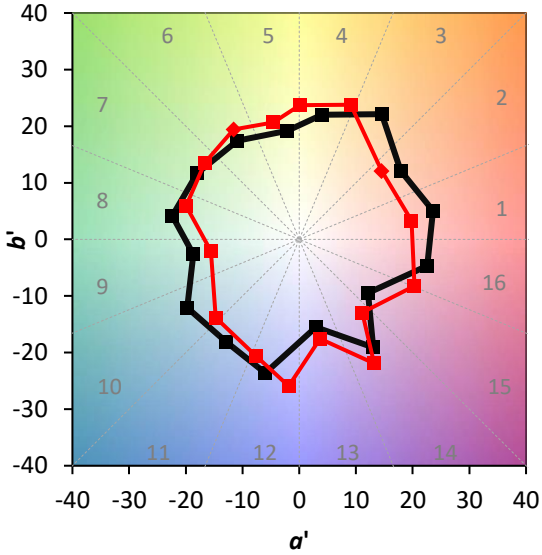
R_f = 73
R_g = 94.6
CIE R_a = 70.9
R_9 = -29.8

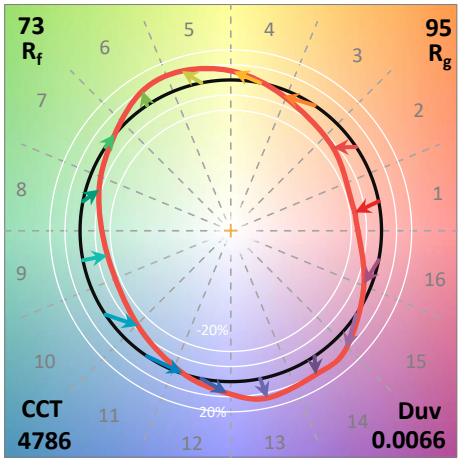
Spectral Power Distribution Comparison

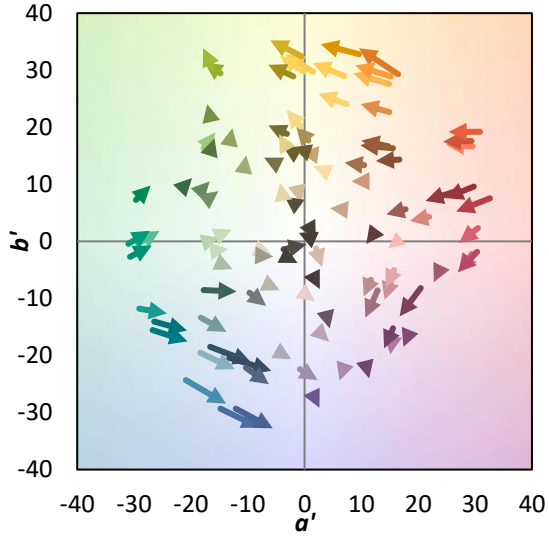


Color Vector Graphics







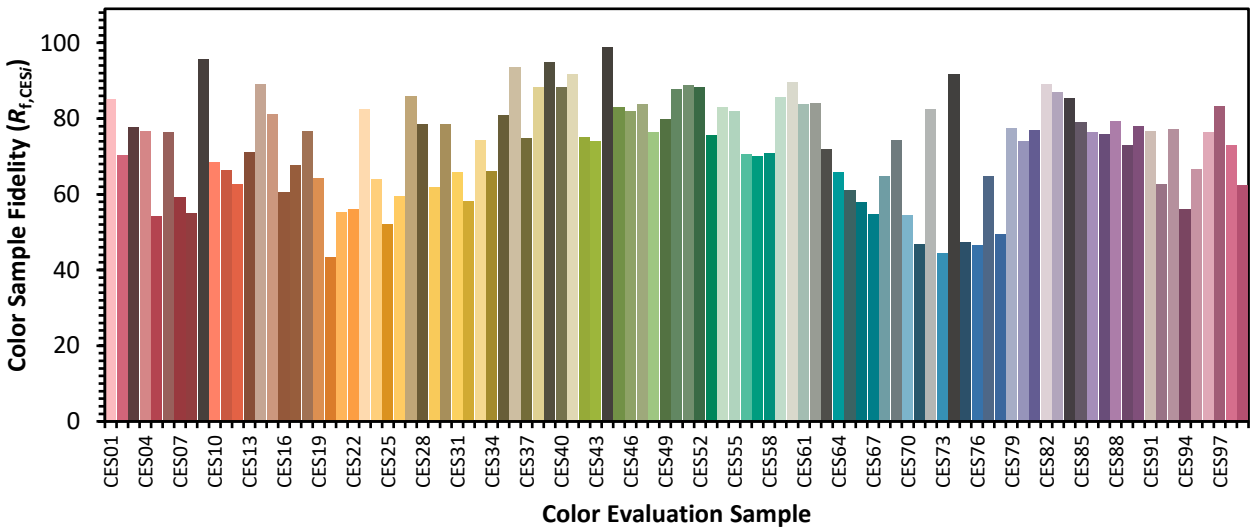


REPORT NUMBER: SP1-2407-176-6

TM-30-18

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

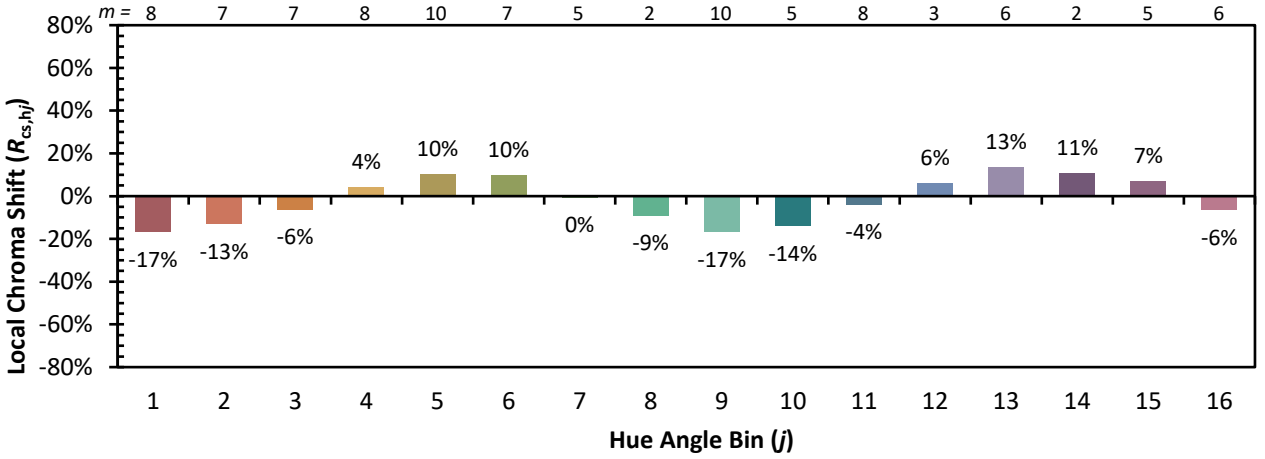
CES01 = 85	CES26 = 60	CES51 = 89	CES76 = 46
CES02 = 59	CES27 = 86	CES52 = 88	CES77 = 65
CES03 = 30	CES28 = 78	CES53 = 76	CES78 = 49
CES04 = 69	CES29 = 62	CES54 = 83	CES79 = 78
CES05 = 46	CES30 = 79	CES55 = 82	CES80 = 74
CES06 = 50	CES31 = 66	CES56 = 71	CES81 = 77
CES07 = 39	CES32 = 58	CES57 = 70	CES82 = 89
CES08 = 38	CES33 = 74	CES58 = 71	CES83 = 87
CES09 = 29	CES34 = 66	CES59 = 86	CES84 = 86
CES10 = 72	CES35 = 81	CES60 = 90	CES85 = 79
CES11 = 56	CES36 = 94	CES61 = 84	CES86 = 76
CES12 = 61	CES37 = 75	CES62 = 84	CES87 = 76
CES13 = 41	CES38 = 88	CES63 = 72	CES88 = 79
CES14 = 74	CES39 = 95	CES64 = 66	CES89 = 73
CES15 = 70	CES40 = 88	CES65 = 61	CES90 = 78
CES16 = 46	CES41 = 92	CES66 = 58	CES91 = 77
CES17 = 49	CES42 = 75	CES67 = 55	CES92 = 63
CES18 = 55	CES43 = 74	CES68 = 65	CES93 = 77
CES19 = 71	CES44 = 99	CES69 = 74	CES94 = 56
CES20 = 64	CES45 = 83	CES70 = 55	CES95 = 67
CES21 = 85	CES46 = 82	CES71 = 47	CES96 = 76
CES22 = 77	CES47 = 84	CES72 = 82	CES97 = 83
CES23 = 91	CES48 = 76	CES73 = 44	CES98 = 73
CES24 = 90	CES49 = 80	CES74 = 92	CES99 = 62
CES25 = 71	CES50 = 88	CES75 = 47	

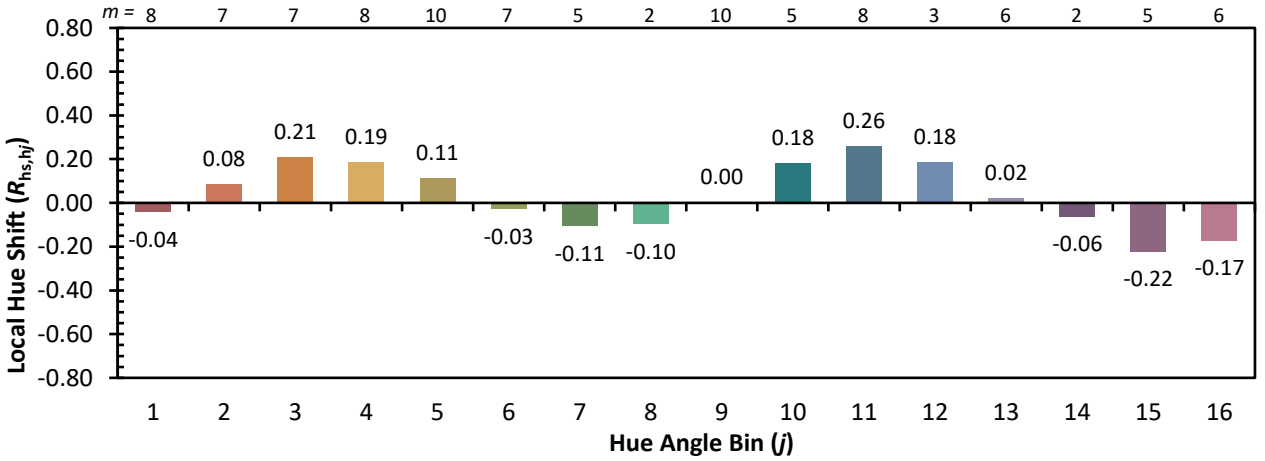


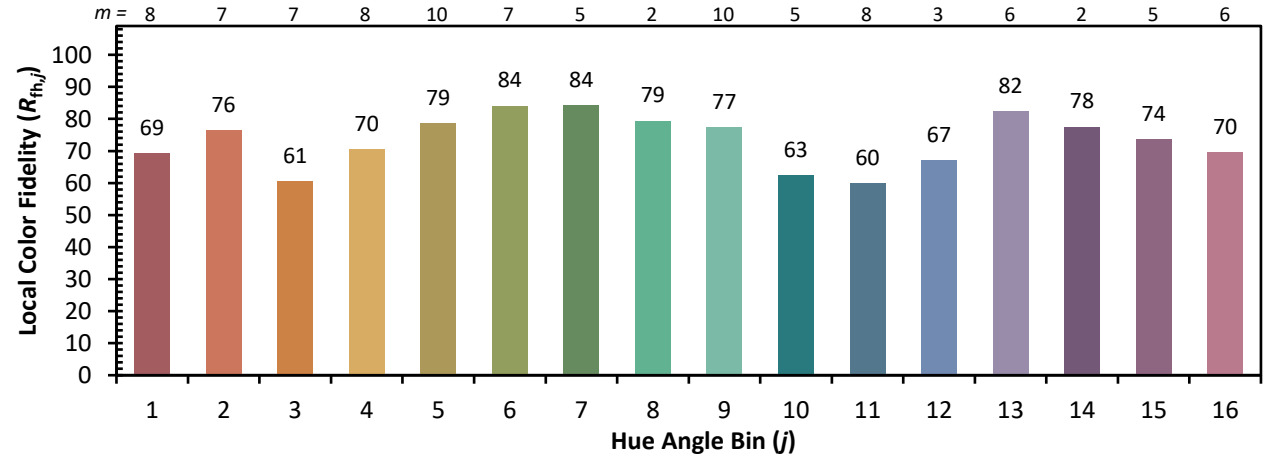
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Color Rendition by Hue-Angle Bin



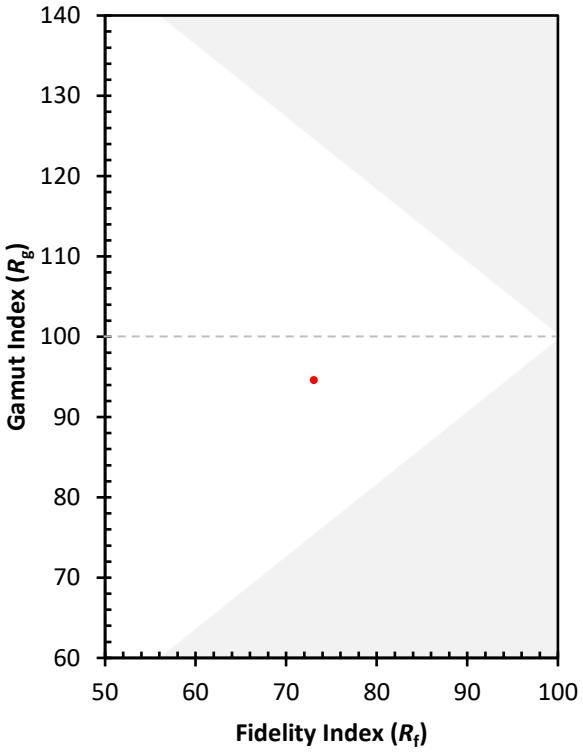


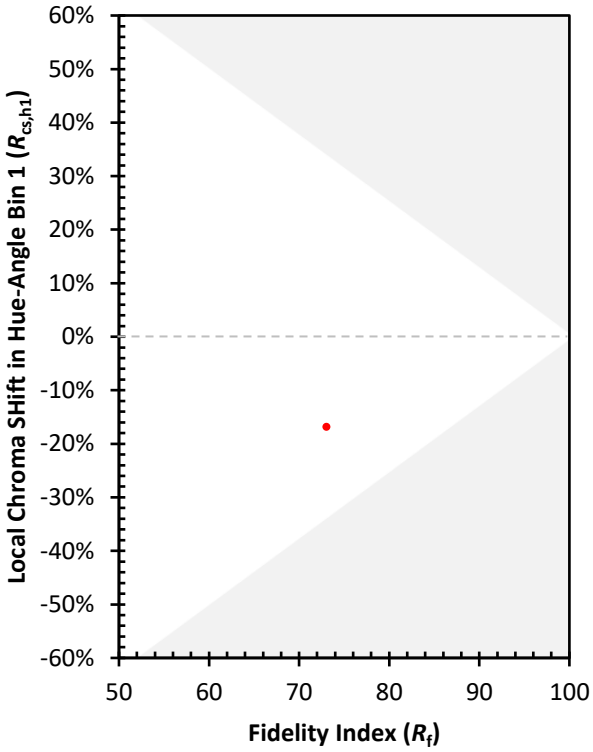


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Measure Comparisons





(END OF REPORT)