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: P436835

Luminaire Tested: **TT-D4-735-U-5MQ-PM-HSS**

Issue Date: 12/2/2020

Report Generated By 670246001

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:	P436835
	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-D4-735-U-5MQ-PM-HSS
Description:	TOPTIER LED SITE LUMINAIRE
	3500K, 70 CRI LEDS AND MEDIUM DISTRIBUTION WITH HOUSE SIDE SHIELD
Light Source:	-
Ballast/Driver:	ELECTRONIC DRIVER

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	6366.9 lumens
Efficiency:	N/A
Efficacy:	110.5 lumens/watt
Luminous Opening:	Circular (Dia: 1.12' x H: 0')
IES Classification:	Type IV - Short
BUG Rating:	B2 - U2 - G2

Input Watts (W):	57.6
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:	28.75 FT

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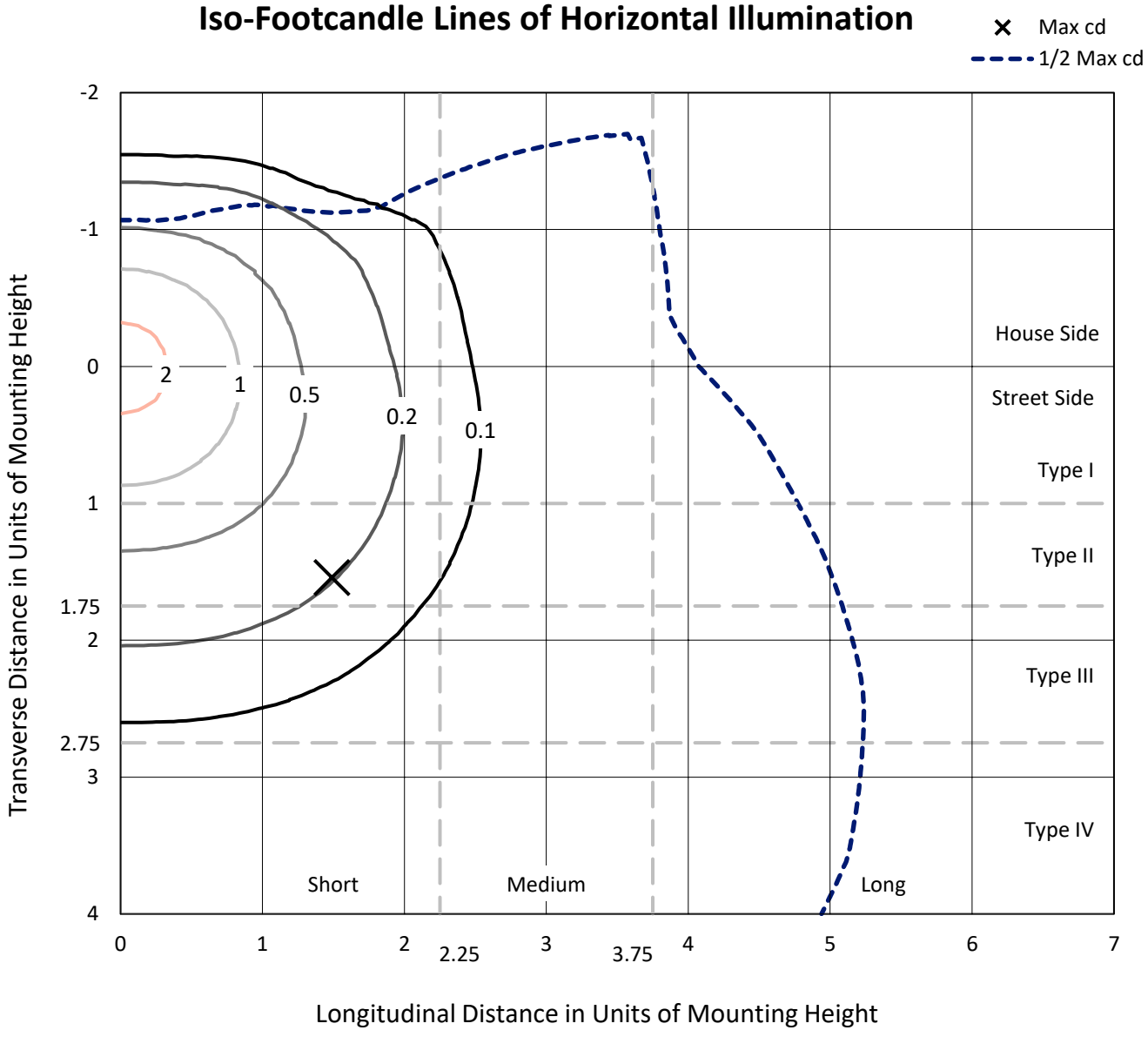
Iso-Footcandle Lines of Horizontal Illumination



Based on 25 foot mounting height. Maximum calculated value = 2.4 fc
Type IV - Short - N/A

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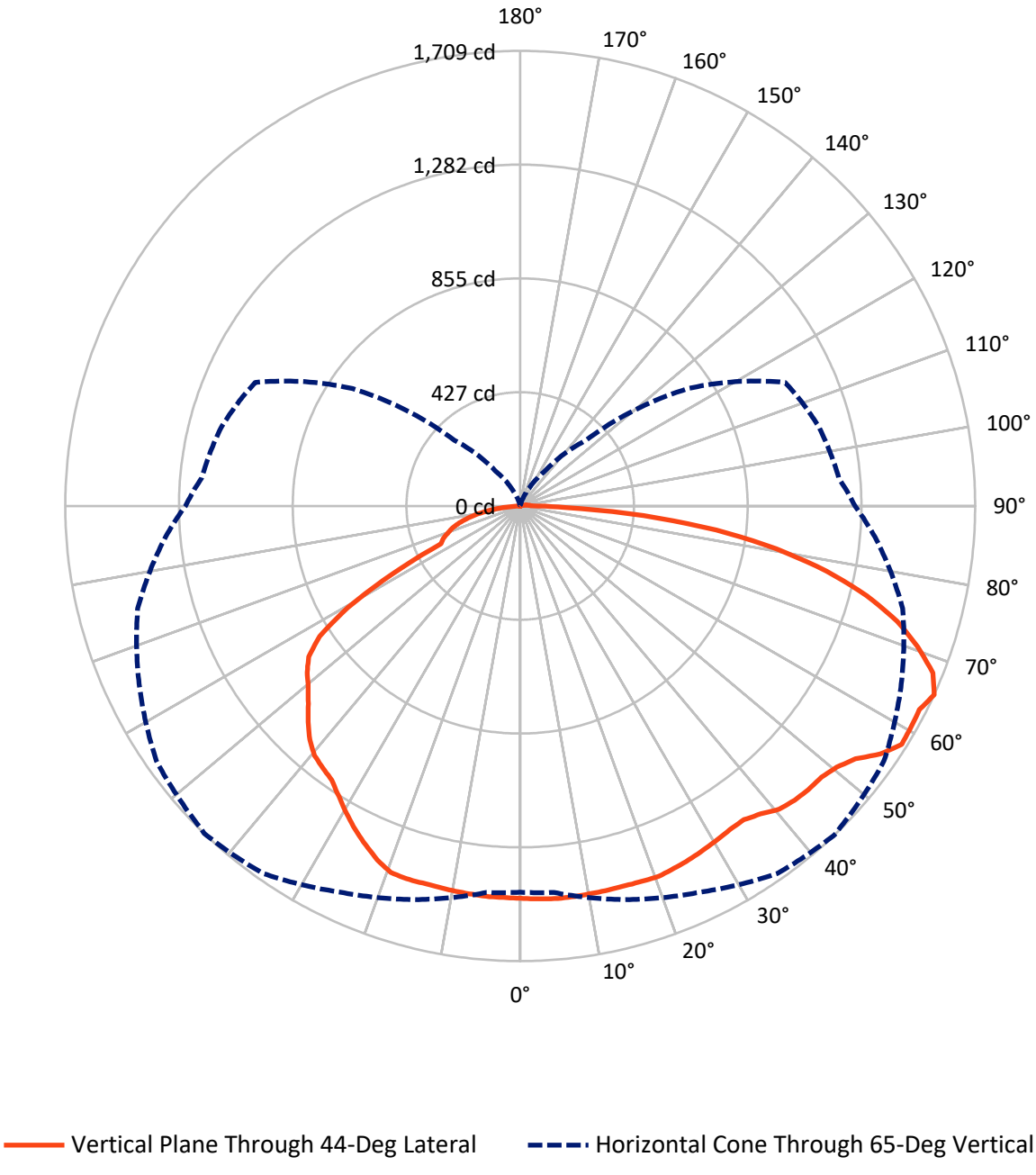
Luminous Intensity Polar Plot



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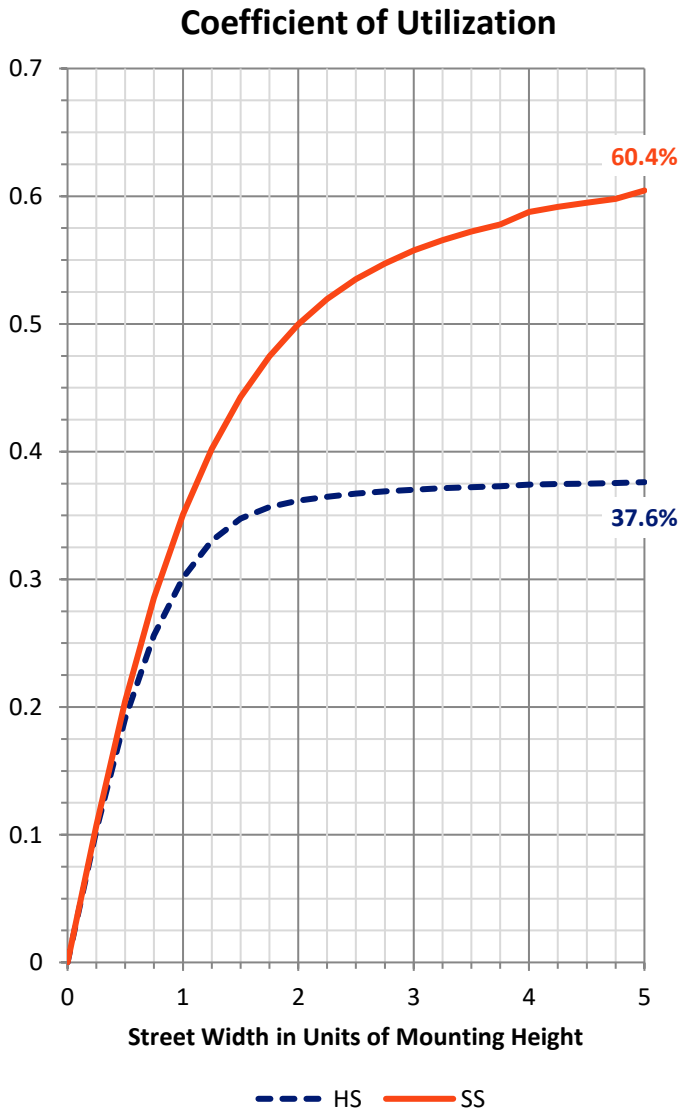
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2410.8	1.6	2412.5
	% Fixture	37.9	0.0	37.9
Street Side	Lumens	3932.9	21.6	3954.5
	% Fixture	61.8	0.3	62.1
Total	Lumens	6343.7	23.2	6366.9
	% Fixture	99.6	0.4	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	140.7	2.2
10°-20°	416.7	6.5
20°-30°	663.0	10.4
30°-40°	849.5	13.3
40°-50°	1006.4	15.8
50°-60°	1102.2	17.3
60°-70°	1047.7	16.5
70°-80°	834.1	13.1
80°-90°	283.4	4.5
90°-100°	14.9	0.2
100°-110°	4.9	0.1
110°-120°	1.1	0.0
120°-130°	0.7	0.0
130°-140°	0.5	0.0
140°-150°	0.5	0.0
150°-160°	0.4	0.0
160°-170°	0.2	0.0
170°-180°	0.1	0.0
0°-90°	6343.7	99.6
0°-180°	6366.9	100.0



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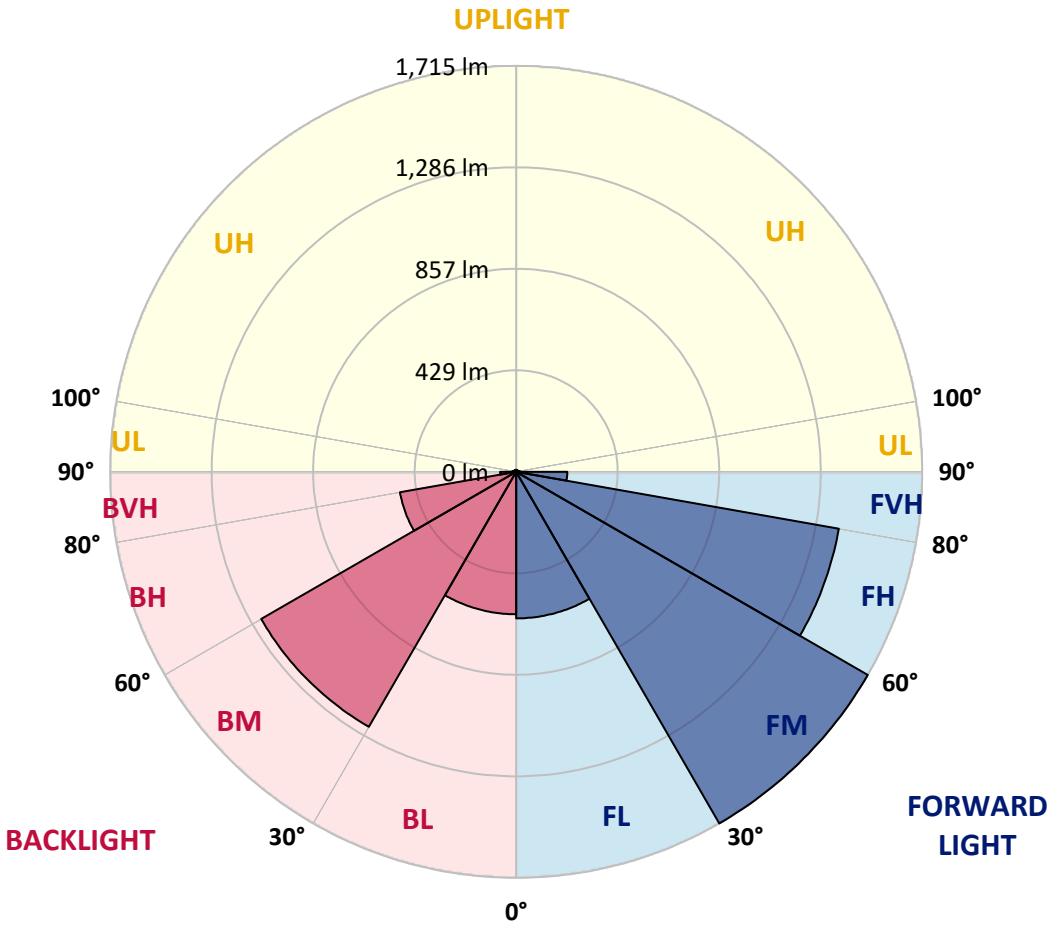
LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	618.9	9.7			
FM	(30°-60°)	1714.6	26.9			
FH	(60°-80°)	1383.6	21.7			G1/1800
FVH	(80°-90°)	215.8	3.4			G2/225
BL	(0°-30°)	601.6	9.4	B2/1000		
BM	(30°-60°)	1243.5	19.5	B2/2500		
BH	(60°-80°)	498.2	7.8	B1/500		G1/500
BVH	(80°-90°)	67.5	1.1			G1/100
UL	(90°-100°)	14.9	0.2		U2/50	
UH	(100°-180°)	8.3	0.1		U1/10	

BUG Rating: B2-U2-G2
Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	44°	45°	55°	65°	75°	85°
0°	1473.9	1473.9	1473.9	1473.9	1473.9	*1473.9*	1473.9	1473.9	1473.9	1473.9	1473.9
2.5°	1479.5	1478.4	1478.4	1478.4	1478.4	*1477.3*	1478.4	1476.2	1477.3	1473.9	1473.9
5°	1482.9	1480.7	1481.8	1481.8	1481.8	*1480.7*	1481.8	1478.4	1479.5	1475.0	1473.9
7.5°	1484.0	1482.9	1482.9	1482.9	1482.9	*1480.7*	1481.8	1479.5	1478.4	1475.0	1472.8
10°	1484.0	1482.9	1482.9	1482.9	1481.8	*1479.5*	1480.7	1477.3	1477.3	1472.8	1470.5
12.5°	1484.0	1482.9	1484.0	1481.8	1481.8	*1479.5*	1479.5	1476.2	1476.2	1470.5	1468.3
15°	1482.9	1481.8	1481.8	1482.9	1481.8	*1479.5*	1479.5	1476.2	1475.0	1468.3	1466.0
17.5°	1481.8	1480.7	1481.8	1482.9	1484.0	*1481.8*	1482.9	1477.3	1475.0	1468.3	1464.9
20°	1482.9	1481.8	1482.9	1485.2	1485.2	*1485.2*	1485.2	1479.5	1475.0	1468.3	1462.7
22.5°	1479.5	1479.5	1479.5	1479.5	1481.8	*1478.4*	1478.4	1475.0	1469.4	1463.8	1458.2
25°	1471.7	1471.7	1472.8	1473.9	1473.9	*1471.7*	1470.5	1467.2	1462.7	1455.9	1449.2
27.5°	1462.7	1462.7	1463.8	1463.8	1466.0	*1463.8*	1462.7	1458.2	1453.7	1445.8	1437.9
30°	1452.5	1452.5	1452.5	1454.8	1455.9	*1455.9*	1454.8	1449.2	1443.5	1434.5	1424.4
32.5°	1441.3	1441.3	1444.7	1446.9	1448.0	*1448.0*	1448.0	1441.3	1434.5	1423.3	1408.7
35°	1432.3	1432.3	1436.8	1444.7	1449.2	*1446.9*	1445.8	1441.3	1431.2	1418.8	1395.2
37.5°	1437.9	1437.9	1448.0	1459.3	1469.4	*1467.2*	1467.2	1459.3	1445.8	1425.5	1396.3
40°	1451.4	1452.5	1468.3	1482.9	1495.3	*1497.5*	1497.5	1488.5	1468.3	1442.4	1401.9
42.5°	1454.8	1457.0	1472.8	1494.2	1505.4	*1511.0*	1511.0	1498.7	1477.3	1446.9	1399.7
45°	1454.8	1455.9	1473.9	1496.4	1514.4	*1518.9*	1518.9	1505.4	1478.4	1449.2	1391.8
47.5°	1454.8	1453.7	1469.4	1500.9	1518.9	*1522.3*	1522.3	1507.7	1481.8	1444.7	1380.5
50°	1451.4	1457.0	1480.7	1505.4	1536.9	*1541.4*	1540.3	1524.5	1488.5	1450.3	1371.5
52.5°	1459.3	1458.2	1489.7	1539.2	1567.3	*1577.4*	1578.6	1558.3	1521.2	1466.0	1365.9
55°	1491.9	1493.0	1523.4	1580.8	1623.6	*1642.7*	1640.4	1614.6	1561.7	1497.5	1381.7
57.5°	1503.2	1514.4	1558.3	1607.8	1673.1	*1689.9*	1689.9	1658.4	1594.3	1522.3	1392.9
60°	1480.7	1485.2	1539.2	1623.6	1683.2	*1686.6*	1687.7	1665.2	1597.7	1508.8	1370.4
62.5°	1475.0	1484.0	1525.7	1620.2	1658.4	*1683.2*	1682.1	1651.7	1594.3	1498.7	1362.5
65°	*1450.3*	*1457.0*	*1530.2*	*1599.9*	*1684.3*	*1709.1*	*1703.4*	*1668.6*	*1579.7*	*1487.4*	*1337.8*
67.5°	1399.7	1406.4	1473.9	1571.8	1648.3	*1671.9*	1677.6	1637.1	1544.8	1434.5	1284.9
70°	1315.3	1325.4	1394.0	1489.7	1570.7	*1584.2*	1581.9	1557.2	1464.9	1346.8	1207.3
72.5°	1197.1	1212.9	1299.5	1390.7	1460.4	*1480.7*	1471.7	1443.5	1368.2	1241.0	1101.5
75°	1072.2	1086.9	1155.5	1257.9	1331.0	*1344.5*	1337.8	1304.0	1227.5	1102.6	976.6
77.5°	936.1	948.5	1007.0	1111.6	1165.6	*1176.9*	1180.3	1135.3	1063.2	950.7	838.2
80°	752.7	758.3	837.1	905.7	953.0	*975.5*	973.2	939.5	867.5	774.1	661.6
82.5°	555.8	560.3	621.1	679.6	722.3	*742.6*	731.3	697.6	640.2	560.3	474.8
85°	340.9	333.0	382.5	426.4	452.3	*465.8*	454.6	435.4	384.8	321.8	262.2
87.5°	122.6	115.9	138.4	145.1	174.4	*169.9*	180.0	145.1	117.0	83.3	58.5
90°	54.0	54.0	52.9	50.6	46.1	*41.6*	40.5	33.8	24.8	15.8	5.6
92.5°	49.5	49.5	48.4	46.1	41.6	*37.1*	37.1	30.4	22.5	14.6	5.6
95°	41.6	41.6	40.5	38.3	34.9	*31.5*	31.5	24.8	19.1	12.4	4.5
97.5°	32.6	32.6	31.5	30.4	27.0	*24.8*	24.8	20.3	14.6	9.0	3.4
100°	24.8	24.8	23.6	22.5	21.4	*19.1*	18.0	14.6	11.3	6.8	2.3
102.5°	18.0	18.0	18.0	16.9	14.6	*13.5*	13.5	11.3	7.9	5.6	2.3
105°	12.4	12.4	12.4	11.3	10.1	*9.0*	9.0	7.9	5.6	3.4	1.1
107.5°	7.9	7.9	7.9	7.9	6.8	*5.6*	5.6	4.5	3.4	2.3	1.1
110°	4.5	3.4	4.5	4.5	4.5	*3.4*	3.4	2.3	2.3	1.1	1.1

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REPORT NUMBER: P436835
CATALOG NUMBER: TT-D4-735-U-5MQ-PM-HSS

CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	44°	45°	55°	65°	75°	85°
112.5°	2.3	2.3	2.3	2.3	2.3	*2.3*	2.3	1.1	1.1	1.1	1.1
115°	1.1	1.1	1.1	2.3	2.3	*1.1*	1.1	1.1	1.1	1.1	1.1
117.5°	0.0	1.1	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	1.1	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	1.1	1.1	0.0	0.0	*1.1*	1.1	1.1	1.1	1.1	1.1
142.5°	1.1	1.1	1.1	1.1	1.1	*1.1*	1.1	1.1	1.1	1.1	1.1
145°	1.1	1.1	1.1	1.1	1.1	*1.1*	1.1	1.1	1.1	1.1	1.1
147.5°	1.1	1.1	0.0	0.0	1.1	*1.1*	1.1	1.1	1.1	1.1	1.1
150°	1.1	1.1	1.1	0.0	0.0	*1.1*	1.1	1.1	1.1	1.1	1.1
152.5°	1.1	1.1	1.1	1.1	1.1	*1.1*	1.1	1.1	1.1	1.1	1.1
155°	1.1	1.1	1.1	1.1	1.1	*1.1*	1.1	1.1	1.1	1.1	1.1
157.5°	1.1	1.1	1.1	0.0	1.1	*1.1*	1.1	1.1	1.1	1.1	1.1
160°	1.1	1.1	1.1	1.1	1.1	*1.1*	1.1	1.1	1.1	1.1	1.1
162.5°	1.1	1.1	1.1	1.1	1.1	*1.1*	1.1	1.1	1.1	1.1	1.1
165°	1.1	1.1	1.1	1.1	1.1	*1.1*	1.1	1.1	1.1	1.1	1.1
167.5°	1.1	1.1	1.1	1.1	1.1	*1.1*	1.1	1.1	1.1	1.1	1.1
170°	1.1	1.1	1.1	1.1	1.1	*1.1*	1.1	1.1	1.1	1.1	1.1
172.5°	1.1	1.1	1.1	1.1	1.1	*1.1*	1.1	1.1	1.1	1.1	1.1
175°	1.1	1.1	1.1	1.1	1.1	*1.1*	1.1	1.1	1.1	1.1	1.1
177.5°	1.1	1.1	1.1	1.1	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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1473.9	1473.9	1473.9	1473.9	1473.9	1473.9	1473.9	1473.9	1473.9	1473.9	1473.9
2.5°	1473.9	1472.8	1471.7	1472.8	1471.7	1471.7	1470.5	1470.5	1469.4	1469.4	1468.3
5°	1473.9	1472.8	1471.7	1472.8	1470.5	1471.7	1471.7	1470.5	1469.4	1468.3	1467.2
7.5°	1472.8	1472.8	1470.5	1471.7	1469.4	1469.4	1468.3	1468.3	1467.2	1467.2	1466.0
10°	1470.5	1469.4	1469.4	1469.4	1467.2	1467.2	1466.0	1464.9	1464.9	1463.8	1462.7
12.5°	1468.3	1467.2	1466.0	1466.0	1464.9	1463.8	1462.7	1462.7	1461.5	1460.4	1459.3
15°	1464.9	1463.8	1463.8	1463.8	1462.7	1462.7	1461.5	1460.4	1458.2	1457.0	1455.9
17.5°	1463.8	1462.7	1463.8	1463.8	1462.7	1463.8	1461.5	1459.3	1457.0	1455.9	1454.8
20°	1462.7	1462.7	1462.7	1461.5	1460.4	1459.3	1458.2	1457.0	1455.9	1454.8	1453.7
22.5°	1457.0	1455.9	1453.7	1446.9	1439.0	1433.4	1432.3	1434.5	1434.5	1434.5	1431.2
25°	1446.9	1443.5	1434.5	1422.2	1408.7	1399.7	1394.0	1394.0	1392.9	1390.7	1389.5
27.5°	1434.5	1427.8	1412.0	1396.3	1377.2	1365.9	1352.4	1344.5	1341.2	1340.0	1337.8
30°	1417.7	1407.5	1387.3	1367.0	1343.4	1327.7	1306.3	1292.8	1284.9	1281.5	1279.3
32.5°	1397.4	1387.3	1363.7	1338.9	1310.8	1288.3	1261.3	1239.9	1225.3	1218.5	1215.1
35°	1383.9	1369.3	1342.3	1313.0	1284.9	1252.3	1219.6	1190.4	1167.9	1160.0	1155.5
37.5°	1378.3	1364.8	1335.5	1306.3	1274.8	1235.4	1197.1	1155.5	1125.1	1111.6	1107.1
40°	1381.7	1364.8	1332.2	1300.6	1263.5	1219.6	1169.0	1117.3	1077.9	1058.7	1054.2
42.5°	1373.8	1354.7	1316.4	1282.6	1236.5	1187.0	1125.1	1065.5	1012.6	996.9	990.1
45°	1360.3	1336.7	1295.0	1252.3	1203.9	1143.1	1079.0	1002.5	939.5	920.4	914.7
47.5°	1346.8	1314.1	1264.6	1225.3	1166.8	1095.9	1020.5	935.0	856.2	837.1	833.7
50°	1326.5	1296.1	1243.3	1197.1	1137.5	1055.4	969.9	863.0	774.1	741.5	732.5
52.5°	1317.5	1278.1	1227.5	1191.5	1119.5	1026.1	918.1	803.3	675.1	634.6	625.6
55°	1326.5	1277.0	1223.0	1188.1	1104.9	989.0	856.2	710.0	561.4	518.7	506.3
57.5°	1310.8	1268.0	1214.0	1174.6	1066.6	912.5	766.2	578.3	424.2	369.0	364.5
60°	1290.5	1229.8	1179.1	1143.1	986.7	768.5	596.3	411.8	255.4	208.1	199.1
62.5°	1282.6	1219.6	1161.1	1117.3	879.8	564.8	363.4	208.1	105.8	74.3	67.5
65°	*1257.9*	*1201.6*	*1160.0*	*1098.1*	*768.5*	*348.8*	*156.4*	*61.9*	*4.5*	*3.4*	*3.4*
67.5°	1210.6	1153.3	1125.1	1089.1	757.2	333.0	141.8	56.3	2.3	0.0	0.0
70°	1129.6	1084.6	1065.5	1046.4	724.6	308.3	129.4	50.6	1.1	0.0	0.0
72.5°	1022.7	992.4	989.0	986.7	677.3	284.7	115.9	45.0	1.1	0.0	0.0
75°	915.9	878.7	884.3	897.9	618.8	252.0	100.1	39.4	1.1	0.0	0.0
77.5°	780.8	753.8	767.3	789.8	542.3	213.8	82.1	31.5	1.1	0.0	0.0
80°	614.3	596.3	626.7	646.9	443.3	169.9	61.9	22.5	0.0	0.0	0.0
82.5°	436.5	426.4	454.6	480.4	329.7	120.4	42.8	14.6	0.0	0.0	0.0
85°	235.2	229.5	256.5	284.7	198.0	68.6	21.4	6.8	0.0	0.0	0.0
87.5°	58.5	54.0	55.1	66.4	48.4	14.6	3.4	1.1	0.0	0.0	0.0
90°	1.1	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	1.1	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
97.5°	1.1	1.1	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0
100°	1.1	1.1	1.1	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0
102.5°	1.1	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105°	1.1	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	1.1	1.1	1.1	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0
110°	1.1	1.1	1.1	1.1	1.1	1.1	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: P436835
CATALOG NUMBER: TT-D4-735-U-5MQ-PM-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
112.5°	1.1	1.1	1.1	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0
115°	1.1	1.1	1.1	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0
117.5°	1.1	1.1	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0
120°	1.1	1.1	1.1	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0
122.5°	1.1	1.1	1.1	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0
125°	1.1	1.1	1.1	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0
127.5°	1.1	1.1	1.1	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0
130°	1.1	1.1	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	1.1	1.1	1.1	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0
135°	1.1	1.1	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	1.1	1.1	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0
140°	1.1	1.1	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	1.1	1.1	1.1	1.1	1.1	0.0	0.0	0.0	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	0.0
147.5°	1.1	1.1	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0
150°	1.1	1.1	1.1	1.1	1.1	0.0	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	0.0
155°	1.1	1.1	1.1	1.1	1.1	0.0	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	0.0
160°	1.1	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	1.1	0.0	0.0	0.0	0.0	0.0
165°	1.1	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	1.1	0.0	0.0	0.0	0.0	0.0
170°	1.1	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	1.1	0.0	0.0	0.0	0.0	0.0
175°	1.1	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	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	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

MCGRAW EDISON

Report Number: SP1-2411-284-1

Test Date: 11/15/2024

Luminaire Tested: TTN-D0-735-U-WQ

Data in this report applies to families of products including TT-D* and TTN-D*

Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

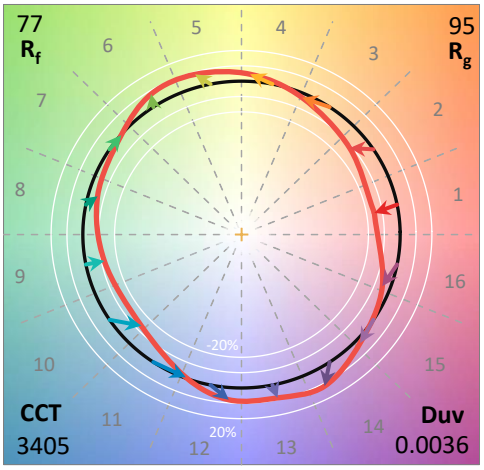
Test Information

Test Method:	LM-79-2019
Report Number:	SP1-2411-284-1
Test Lab:	COOPER LIGHTING SOLUTIONS
Photometer:	SP1 - 76IN SPHERE
Measurement Geometry:	4π
Issue Date:	11/15/2024
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	MCGRAW EDISON
Catalog Number:	**TTN-D0-735-U-WQ**
Description:	TOPTIER NANO LED PARKING GARAGE LUMINAIRE. 3500K, 70 CRI LEDS AND WIDE DISTRIBUTION

Spectral Parameters

CCT (K):	3405
CIE u':	0.2365
CIE v':	0.5180
Duv:	0.0036
CIE x:	0.4148
CIE y:	0.4038
CIE z:	0.1814
Peak Wavelength (nm):	596
Dominant Wavelength (nm):	579
Purity:	45.70672
Rf:	76.6
Rg:	95.4

CRI (Ra):	73.9
R1:	71.3
R2:	80.3
R3:	87.8
R4:	73.2
R5:	69.8
R6:	71.8
R7:	82.8
R8:	54.1
R9:	-18.0
R10:	53.1
R11:	68.6
R12:	42.6
R13:	72.5
R14:	92.7
R15:	64.3



Test Conditions

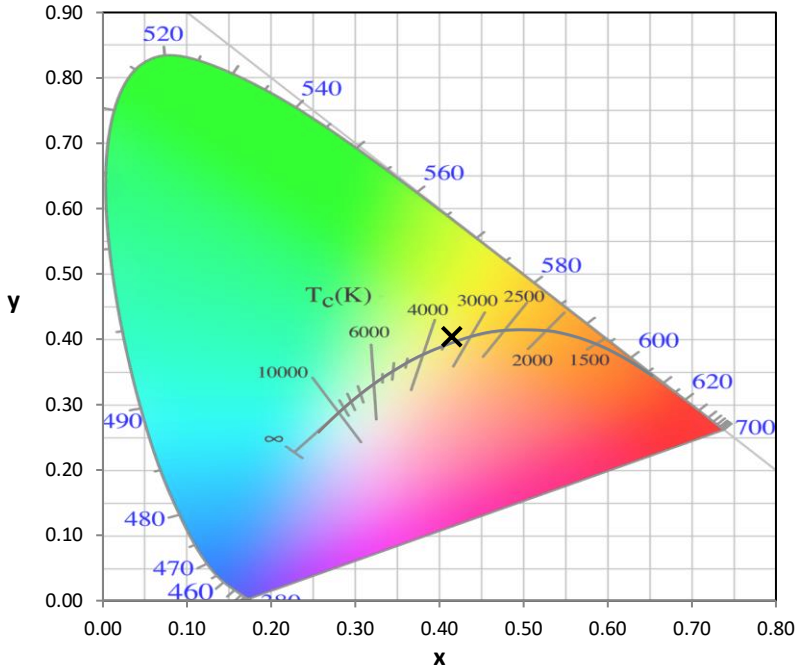
Stabilization Time:	38M
Operation Time:	1H 38M
Sphere Temperature (°C):	24.9

REPORT NUMBER: SP1-2411-284-1

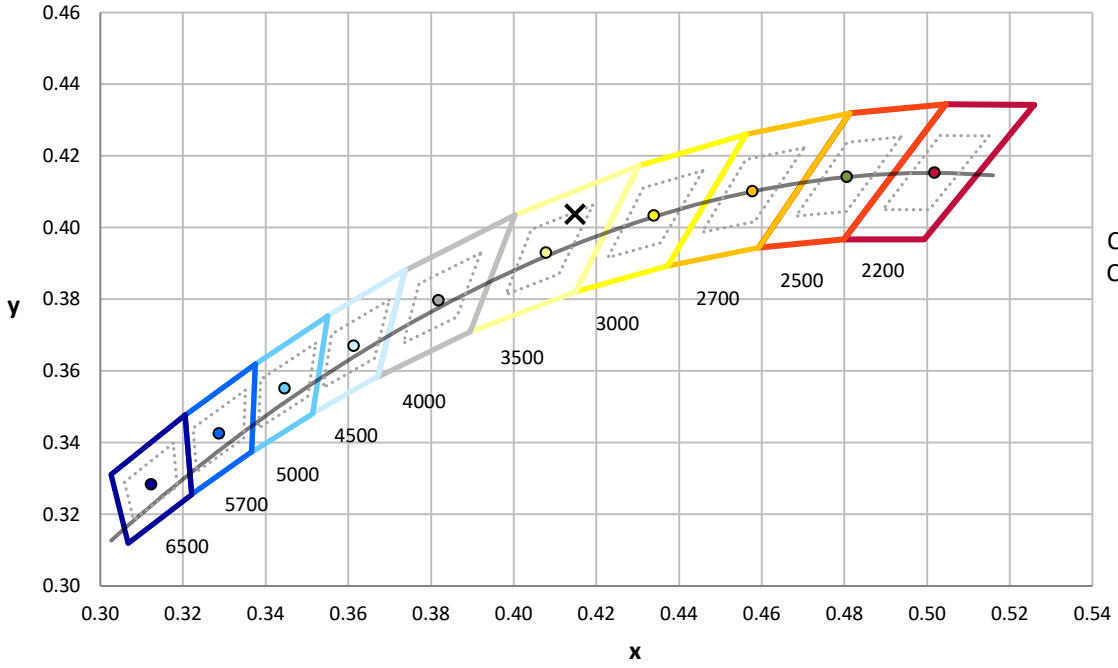
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/22/2024	10/22/2025
DC Power Source	IN0208	10/22/2024	10/22/2025
Sphere Thermometer	IN0085	10/22/2024	10/22/2025
Room Thermometer	IN0046	10/22/2024	10/22/2025

REPORT NUMBER: SP1-2411-284-1

CIE 1931 Chromaticity Diagram



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

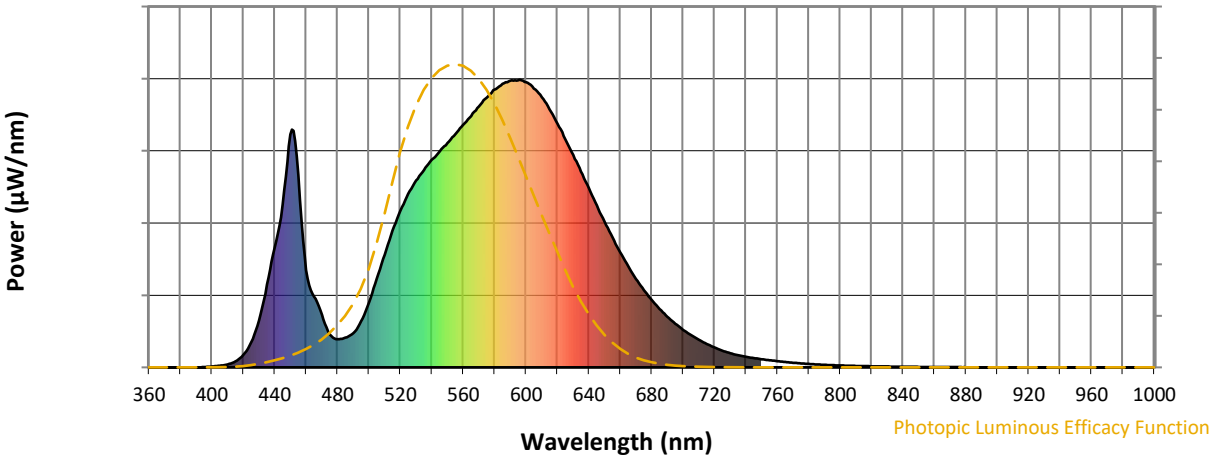


CCT = 3405K
CIE x = 0.4148
CIE y = 0.4038
Duv = 0.0036

Point lies inside the ANSI 3500K 4-step quadrangle

REPORT NUMBER: SP1-2411-284-1

Photopic Flux vs. Wavelength

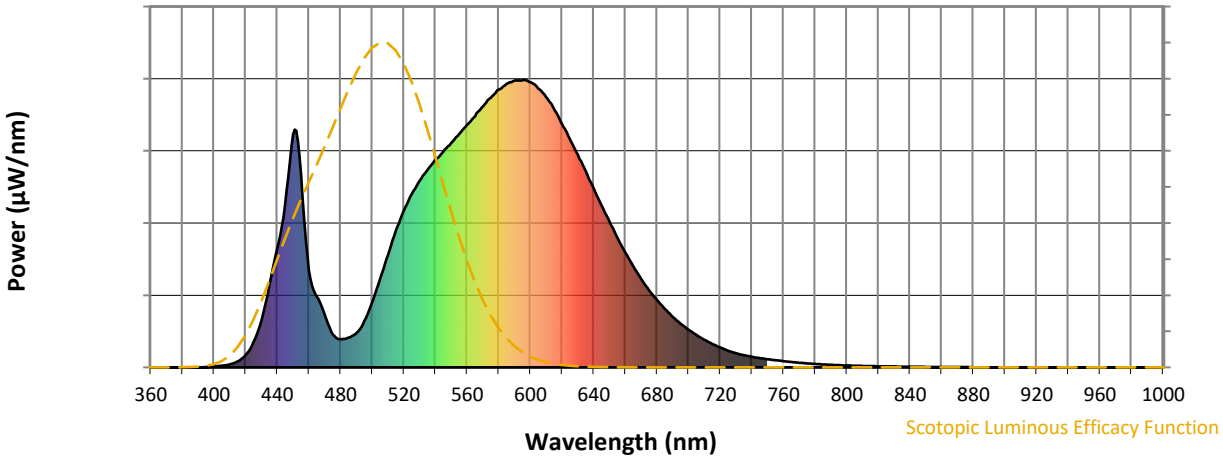


Photopic Lumens: NR

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	119	NR	620	846	NR	750	28	NR	880	1	NR
365	0	NR	495	160	NR	625	793	NR	755	25	NR	885	0	NR
370	0	NR	500	225	NR	630	739	NR	760	22	NR	890	0	NR
375	0	NR	505	308	NR	635	681	NR	765	19	NR	895	0	NR
380	0	NR	510	392	NR	640	623	NR	770	16	NR	900	0	NR
385	0	NR	515	474	NR	645	563	NR	775	14	NR	905	0	NR
390	0	NR	520	545	NR	650	506	NR	780	12	NR	910	0	NR
395	1	NR	525	603	NR	655	451	NR	785	10	NR	915	0	NR
400	3	NR	530	649	NR	660	399	NR	790	9	NR	920	0	NR
405	5	NR	535	687	NR	665	352	NR	795	8	NR	925	0	NR
410	11	NR	540	721	NR	670	307	NR	800	6	NR	930	0	NR
415	21	NR	545	751	NR	675	268	NR	805	6	NR	935	0	NR
420	43	NR	550	779	NR	680	234	NR	810	5	NR	940	0	NR
425	88	NR	555	811	NR	685	203	NR	815	4	NR	945	0	NR
430	163	NR	560	843	NR	690	176	NR	820	4	NR	950	0	NR
435	288	NR	565	873	NR	695	152	NR	825	3	NR	955	0	NR
440	416	NR	570	907	NR	700	131	NR	830	3	NR	960	0	NR
445	566	NR	575	938	NR	705	112	NR	835	3	NR	965	0	NR
450	810	NR	580	965	NR	710	96	NR	840	2	NR	970	0	NR
455	669	NR	585	986	NR	715	81	NR	845	2	NR	975	0	NR
460	338	NR	590	997	NR	720	69	NR	850	2	NR	980	0	NR
465	246	NR	595	997	NR	725	58	NR	855	1	NR	985	0	NR
470	182	NR	600	991	NR	730	49	NR	860	1	NR	990	0	NR
475	115	NR	605	968	NR	735	42	NR	865	1	NR	995	0	NR
480	97	NR	610	939	NR	740	37	NR	870	1	NR	1000	0	NR
485	103	NR	615	896	NR	745	32	NR	875	1	NR			

REPORT NUMBER: SP1-2411-284-1

Scotopic Flux vs. Wavelength

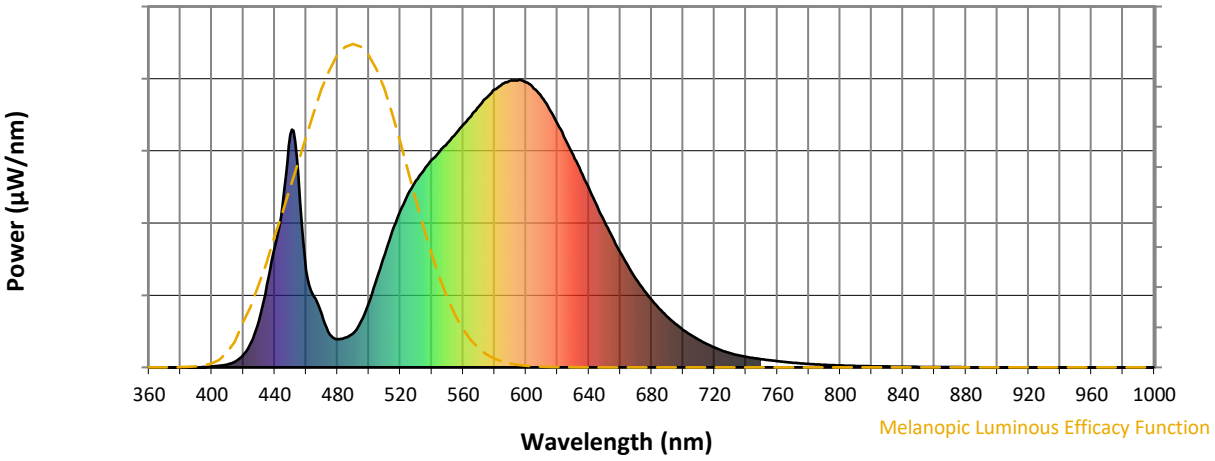


Scotopic Lumens: NR **S/P: 1.33**

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	119	NR	620	846	NR	750	28	NR	880	1	NR
365	0	NR	495	160	NR	625	793	NR	755	25	NR	885	0	NR
370	0	NR	500	225	NR	630	739	NR	760	22	NR	890	0	NR
375	0	NR	505	308	NR	635	681	NR	765	19	NR	895	0	NR
380	0	NR	510	392	NR	640	623	NR	770	16	NR	900	0	NR
385	0	NR	515	474	NR	645	563	NR	775	14	NR	905	0	NR
390	0	NR	520	545	NR	650	506	NR	780	12	NR	910	0	NR
395	1	NR	525	603	NR	655	451	NR	785	10	NR	915	0	NR
400	3	NR	530	649	NR	660	399	NR	790	9	NR	920	0	NR
405	5	NR	535	687	NR	665	352	NR	795	8	NR	925	0	NR
410	11	NR	540	721	NR	670	307	NR	800	6	NR	930	0	NR
415	21	NR	545	751	NR	675	268	NR	805	6	NR	935	0	NR
420	43	NR	550	779	NR	680	234	NR	810	5	NR	940	0	NR
425	88	NR	555	811	NR	685	203	NR	815	4	NR	945	0	NR
430	163	NR	560	843	NR	690	176	NR	820	4	NR	950	0	NR
435	288	NR	565	873	NR	695	152	NR	825	3	NR	955	0	NR
440	416	NR	570	907	NR	700	131	NR	830	3	NR	960	0	NR
445	566	NR	575	938	NR	705	112	NR	835	3	NR	965	0	NR
450	810	NR	580	965	NR	710	96	NR	840	2	NR	970	0	NR
455	669	NR	585	986	NR	715	81	NR	845	2	NR	975	0	NR
460	338	NR	590	997	NR	720	69	NR	850	2	NR	980	0	NR
465	246	NR	595	997	NR	725	58	NR	855	1	NR	985	0	NR
470	182	NR	600	991	NR	730	49	NR	860	1	NR	990	0	NR
475	115	NR	605	968	NR	735	42	NR	865	1	NR	995	0	NR
480	97	NR	610	939	NR	740	37	NR	870	1	NR	1000	0	NR
485	103	NR	615	896	NR	745	32	NR	875	1	NR			

REPORT NUMBER: SP1-2411-284-1

Melanopic Flux vs. Wavelength



Melanopic Lumens: NR **M/P: 2.47**

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	119	NR	620	846	NR	750	28	NR	880	1	NR
365	0	NR	495	160	NR	625	793	NR	755	25	NR	885	0	NR
370	0	NR	500	225	NR	630	739	NR	760	22	NR	890	0	NR
375	0	NR	505	308	NR	635	681	NR	765	19	NR	895	0	NR
380	0	NR	510	392	NR	640	623	NR	770	16	NR	900	0	NR
385	0	NR	515	474	NR	645	563	NR	775	14	NR	905	0	NR
390	0	NR	520	545	NR	650	506	NR	780	12	NR	910	0	NR
395	1	NR	525	603	NR	655	451	NR	785	10	NR	915	0	NR
400	3	NR	530	649	NR	660	399	NR	790	9	NR	920	0	NR
405	5	NR	535	687	NR	665	352	NR	795	8	NR	925	0	NR
410	11	NR	540	721	NR	670	307	NR	800	6	NR	930	0	NR
415	21	NR	545	751	NR	675	268	NR	805	6	NR	935	0	NR
420	43	NR	550	779	NR	680	234	NR	810	5	NR	940	0	NR
425	88	NR	555	811	NR	685	203	NR	815	4	NR	945	0	NR
430	163	NR	560	843	NR	690	176	NR	820	4	NR	950	0	NR
435	288	NR	565	873	NR	695	152	NR	825	3	NR	955	0	NR
440	416	NR	570	907	NR	700	131	NR	830	3	NR	960	0	NR
445	566	NR	575	938	NR	705	112	NR	835	3	NR	965	0	NR
450	810	NR	580	965	NR	710	96	NR	840	2	NR	970	0	NR
455	669	NR	585	986	NR	715	81	NR	845	2	NR	975	0	NR
460	338	NR	590	997	NR	720	69	NR	850	2	NR	980	0	NR
465	246	NR	595	997	NR	725	58	NR	855	1	NR	985	0	NR
470	182	NR	600	991	NR	730	49	NR	860	1	NR	990	0	NR
475	115	NR	605	968	NR	735	42	NR	865	1	NR	995	0	NR
480	97	NR	610	939	NR	740	37	NR	870	1	NR	1000	0	NR
485	103	NR	615	896	NR	745	32	NR	875	1	NR			

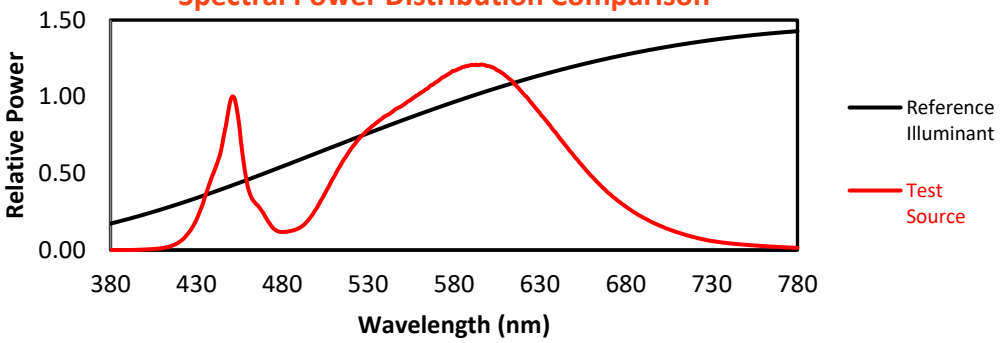
REPORT NUMBER: SP1-2411-284-1

TM-30-18

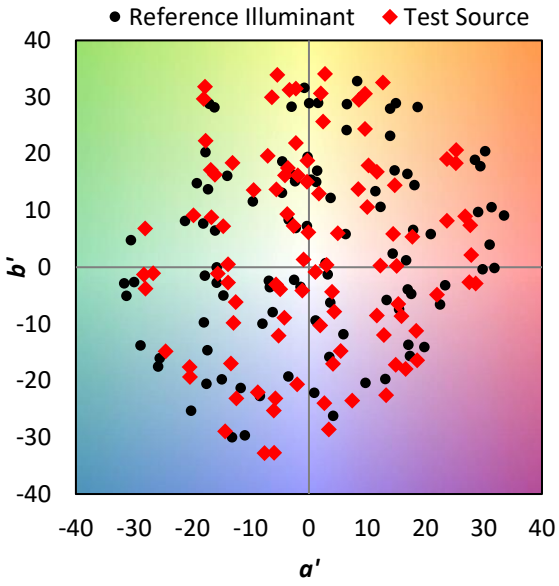
Summary

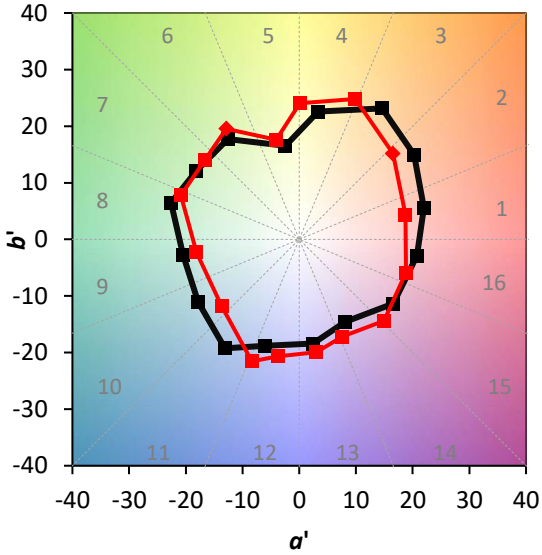
R_f = 76.6
R_g = 95.4
CIE R_a = 73.9
R_9 = -18.0

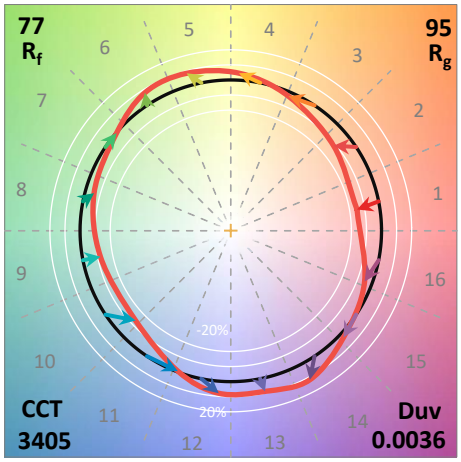
Spectral Power Distribution Comparison

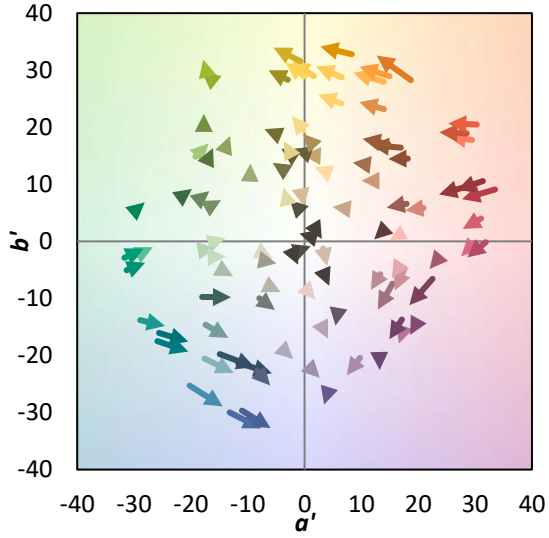


Color Vector Graphics









REPORT NUMBER: SP1-2411-284-1

TM-30-18

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

CES01 = 86	CES26 = 67	CES51 = 88	CES76 = 56
CES02 = 62	CES27 = 89	CES52 = 88	CES77 = 75
CES03 = 31	CES28 = 83	CES53 = 78	CES78 = 60
CES04 = 70	CES29 = 69	CES54 = 86	CES79 = 85
CES05 = 48	CES30 = 83	CES55 = 85	CES80 = 82
CES06 = 51	CES31 = 72	CES56 = 75	CES81 = 78
CES07 = 41	CES32 = 65	CES57 = 75	CES82 = 92
CES08 = 40	CES33 = 78	CES58 = 76	CES83 = 90
CES09 = 29	CES34 = 74	CES59 = 87	CES84 = 88
CES10 = 75	CES35 = 86	CES60 = 91	CES85 = 79
CES11 = 58	CES36 = 93	CES61 = 84	CES86 = 72
CES12 = 64	CES37 = 81	CES62 = 88	CES87 = 79
CES13 = 43	CES38 = 92	CES63 = 74	CES88 = 82
CES14 = 74	CES39 = 96	CES64 = 69	CES89 = 72
CES15 = 71	CES40 = 92	CES65 = 66	CES90 = 82
CES16 = 47	CES41 = 93	CES66 = 62	CES91 = 79
CES17 = 50	CES42 = 83	CES67 = 60	CES92 = 63
CES18 = 56	CES43 = 79	CES68 = 68	CES93 = 77
CES19 = 72	CES44 = 99	CES69 = 76	CES94 = 56
CES20 = 65	CES45 = 86	CES70 = 61	CES95 = 70
CES21 = 86	CES46 = 83	CES71 = 55	CES96 = 79
CES22 = 79	CES47 = 85	CES72 = 85	CES97 = 85
CES23 = 92	CES48 = 78	CES73 = 53	CES98 = 78
CES24 = 91	CES49 = 81	CES74 = 95	CES99 = 68
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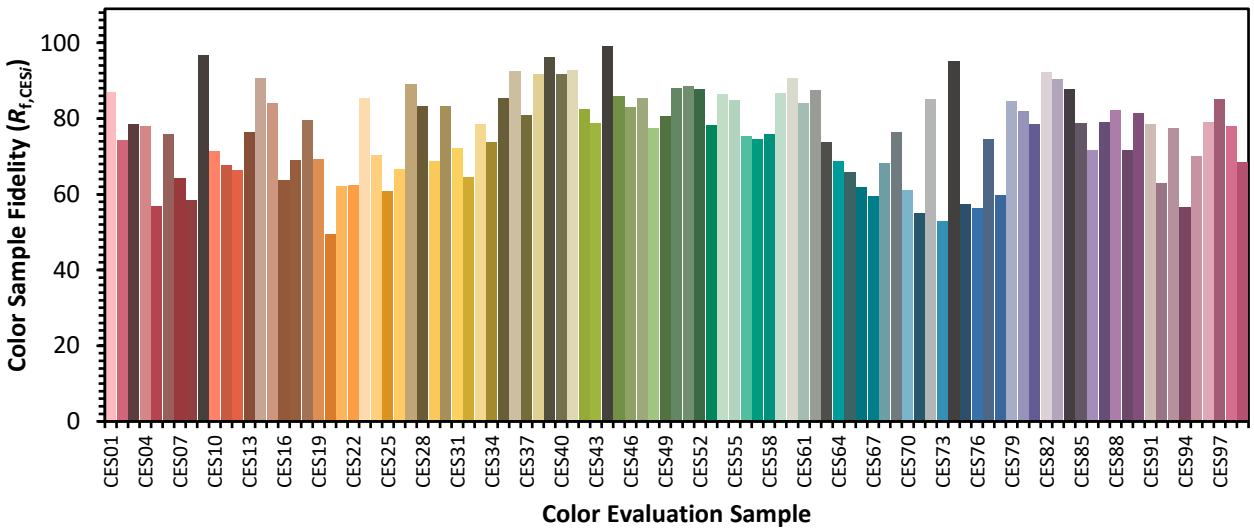

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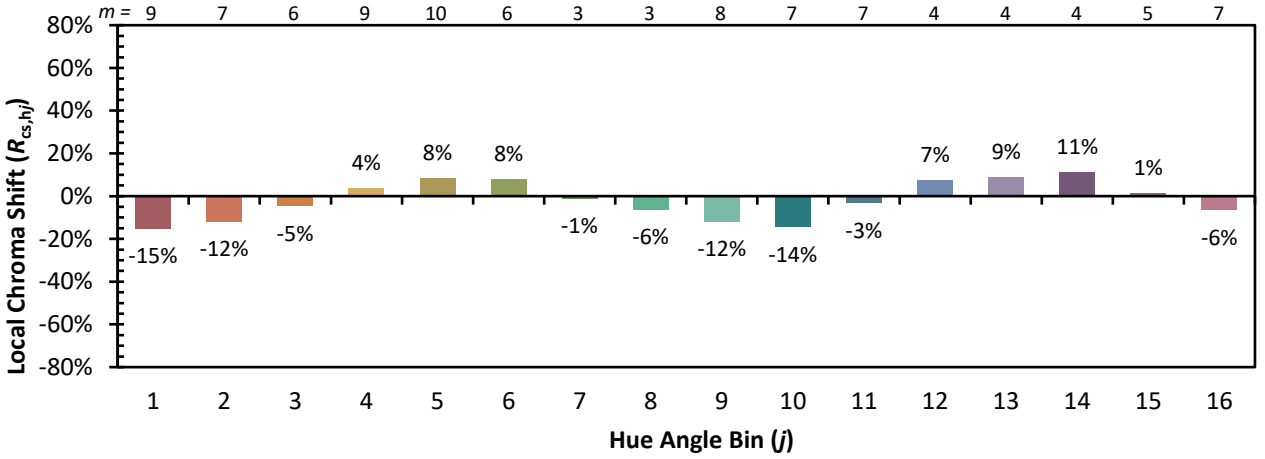
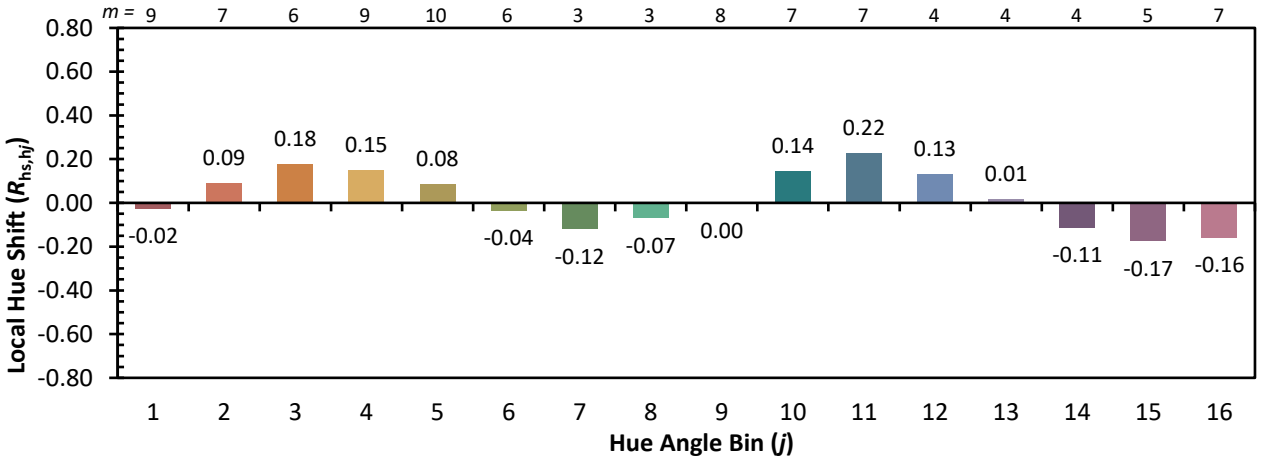
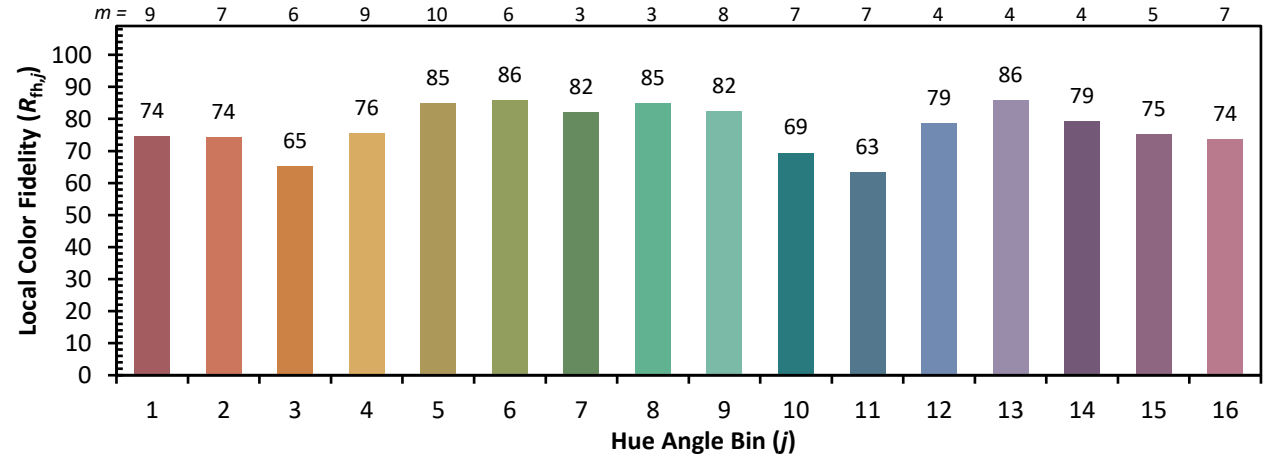
Color Rendition by Hue-Angle Bin







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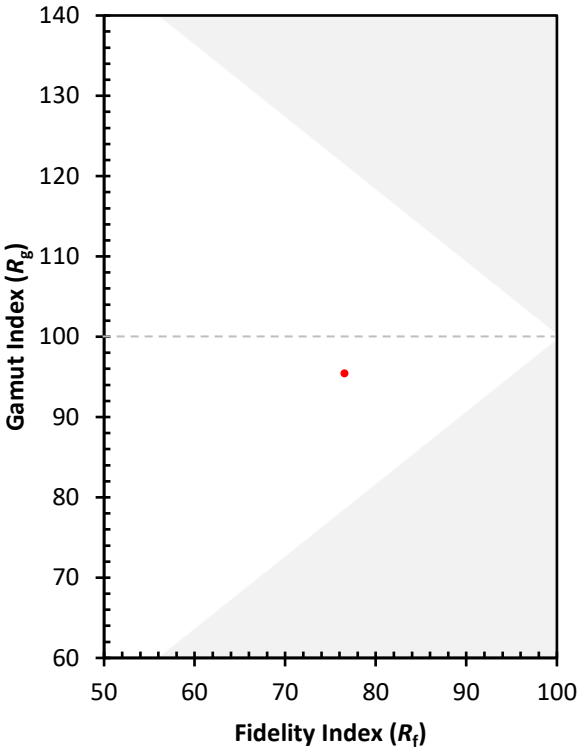
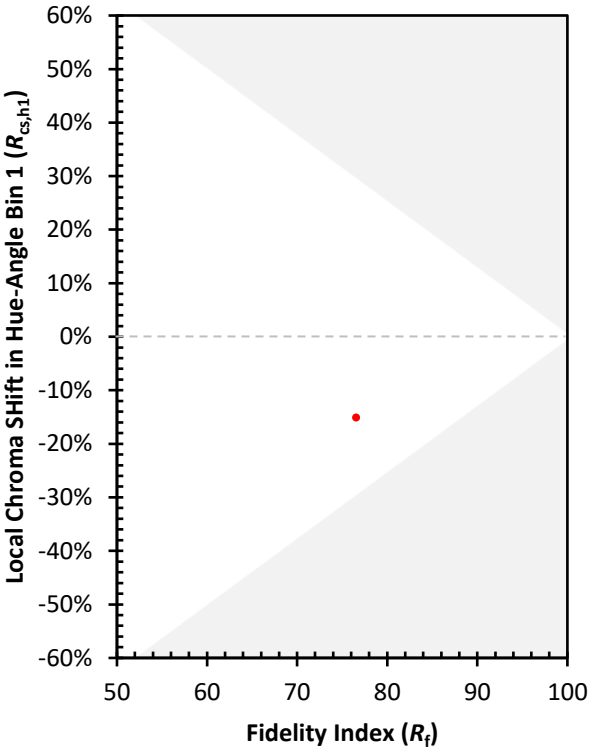
Measure Comparisons





(END OF REPORT)