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: P821218

Luminaire Tested: **TT-D3-735-24VDC-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:	P821218
	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-D3-735-24VDC-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:	5026.8 lumens
Efficiency:	N/A
Efficacy:	109.3 lumens/watt
Luminous Opening:	Circular (Dia: 1.12' x H: 0')
IES Classification:	Type IV - Short
BUG Rating:	B2 - U1 - G1

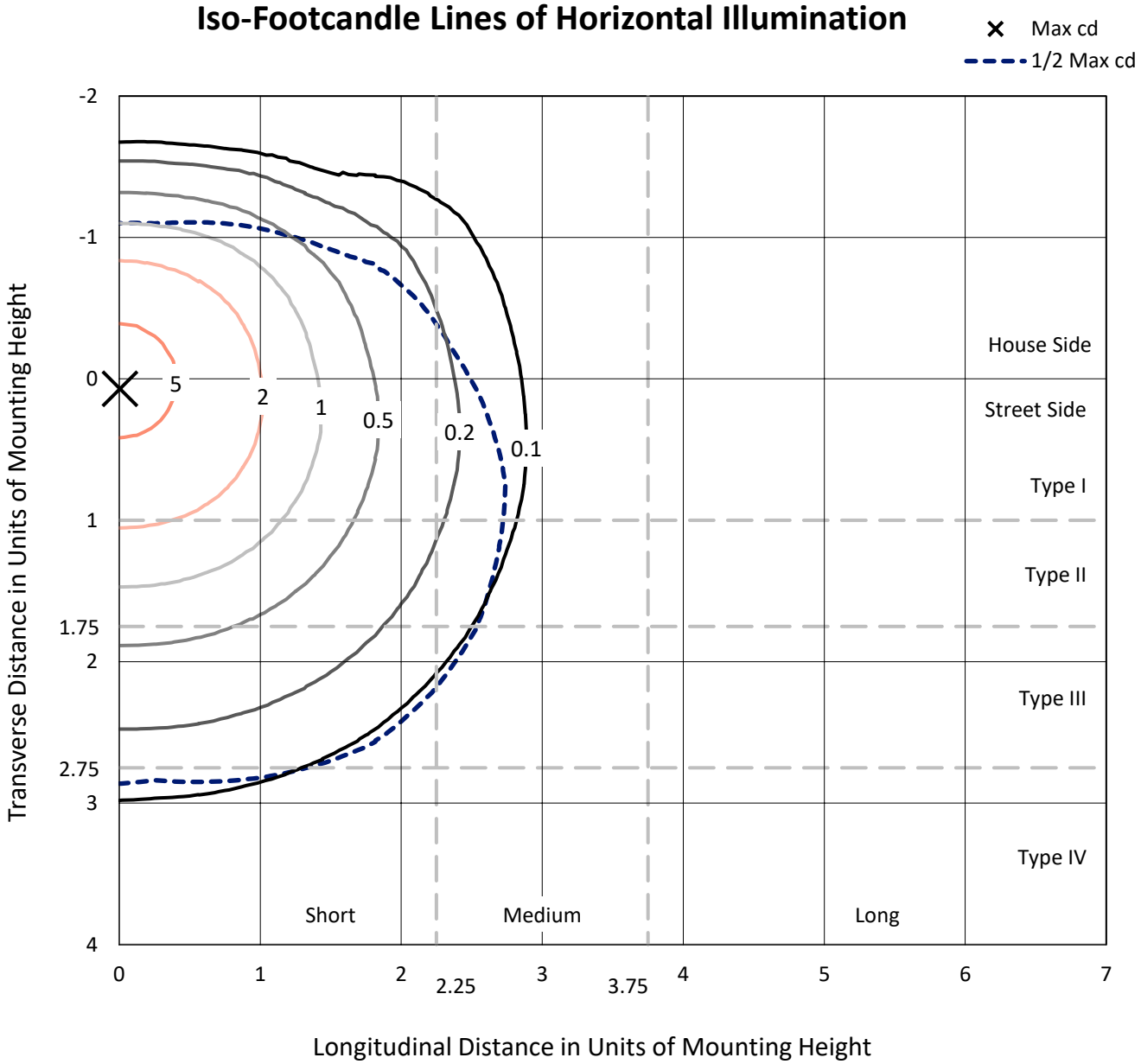
Input Watts (W):	46
Input Voltage (V):	NR
Input Current (Ain):	NR
Voltage Rise (V):	NR
Power Factor:	NR
Total Harmonic Distortion (THDi):	NR
Frequency (hertz):	60
Stabilization Time:	NR
Operation Time:	NR
Ambient Temperature (°C):	NR
Test Distance:	25 FT

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Iso-Footcandle Lines of Horizontal Illumination



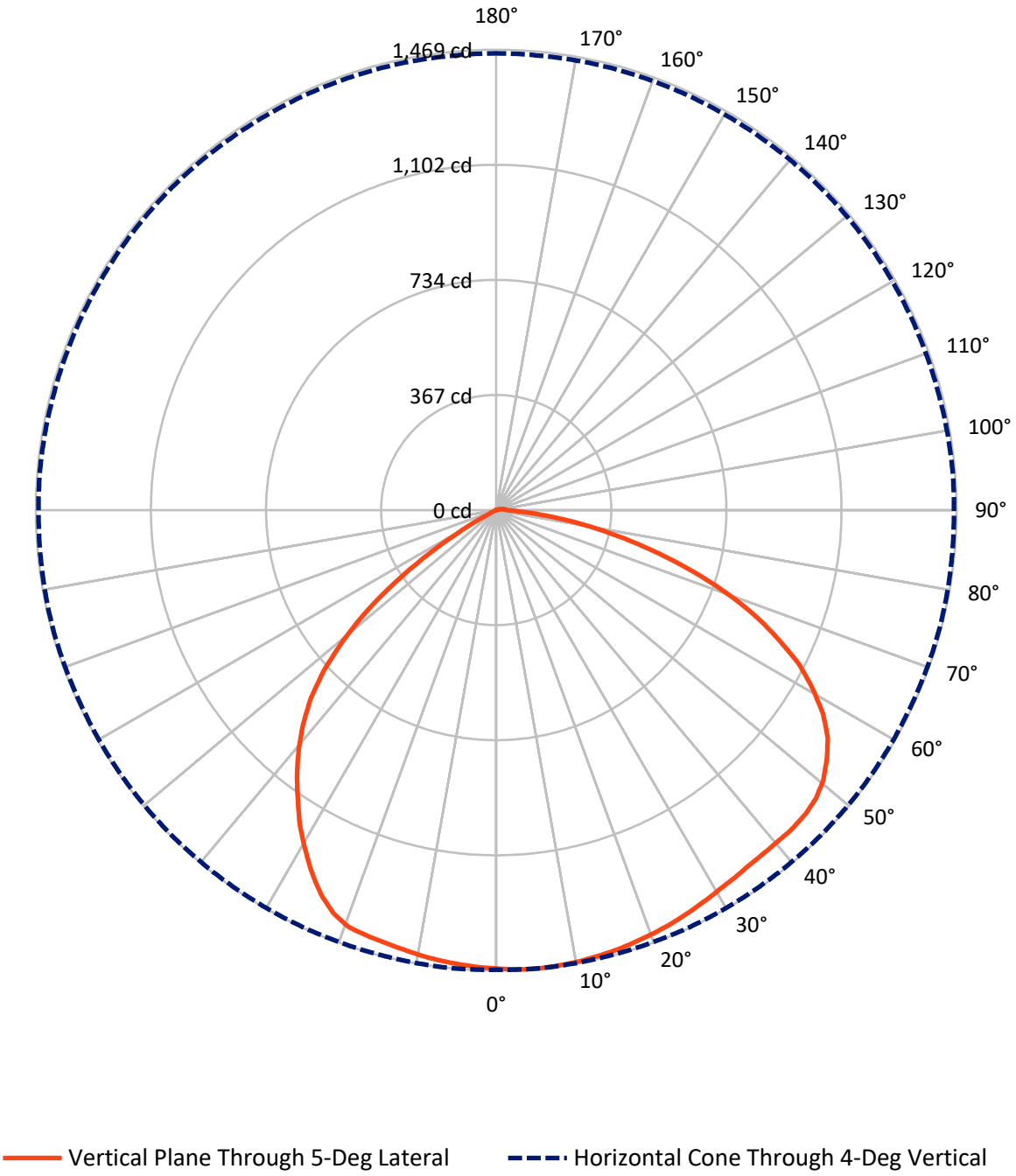
Based on 15 foot mounting height. Maximum calculated value = 6.5 fc
Type IV - Short - N/A

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Luminous Intensity Polar Plot



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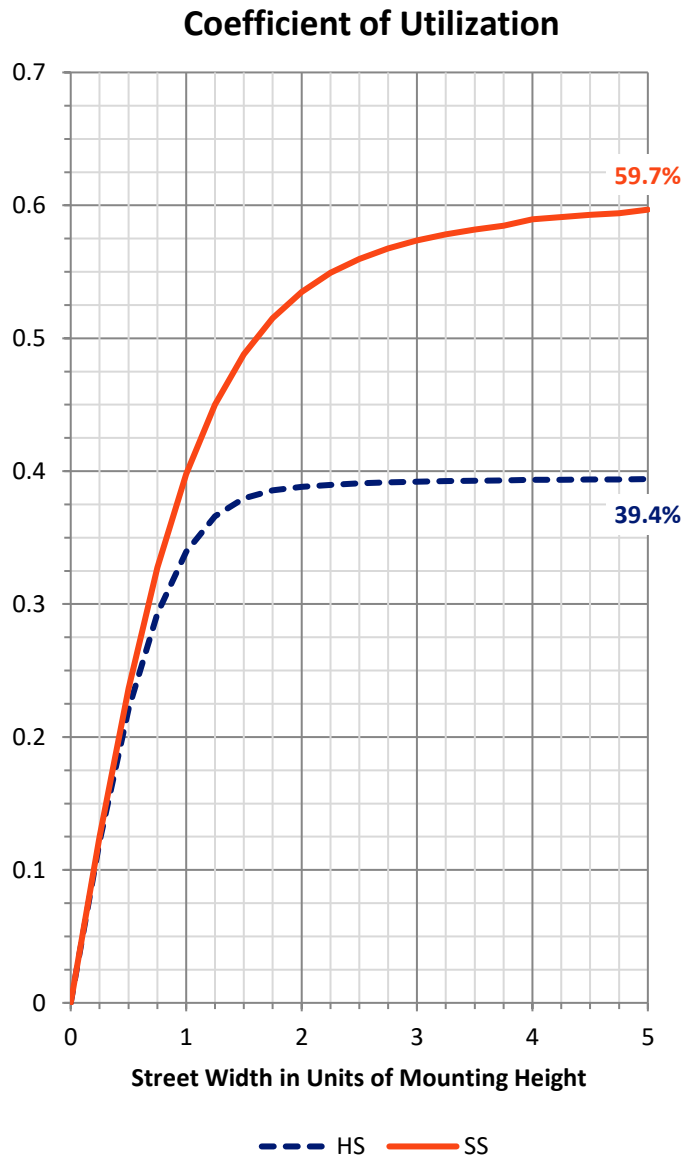
REPORT NUMBER: P821218
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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1992.2	2.4	1994.6
	% Fixture	39.6	0.0	39.7
Street Side	Lumens	3018.3	13.9	3032.2
	% Fixture	60.0	0.3	60.3
Total	Lumens	5010.4	16.4	5026.8
	% Fixture	99.7	0.3	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	139.1	2.8
10°-20°	407.5	8.1
20°-30°	642.1	12.8
30°-40°	817.1	16.3
40°-50°	943.8	18.8
50°-60°	924.1	18.4
60°-70°	688.3	13.7
70°-80°	372.8	7.4
80°-90°	75.6	1.5
90°-100°	9.6	0.2
100°-110°	3.7	0.1
110°-120°	1.0	0.0
120°-130°	0.7	0.0
130°-140°	0.6	0.0
140°-150°	0.4	0.0
150°-160°	0.2	0.0
160°-170°	0.1	0.0
170°-180°	0.1	0.0
0°-90°	5010.4	99.7
0°-180°	5026.8	100.0



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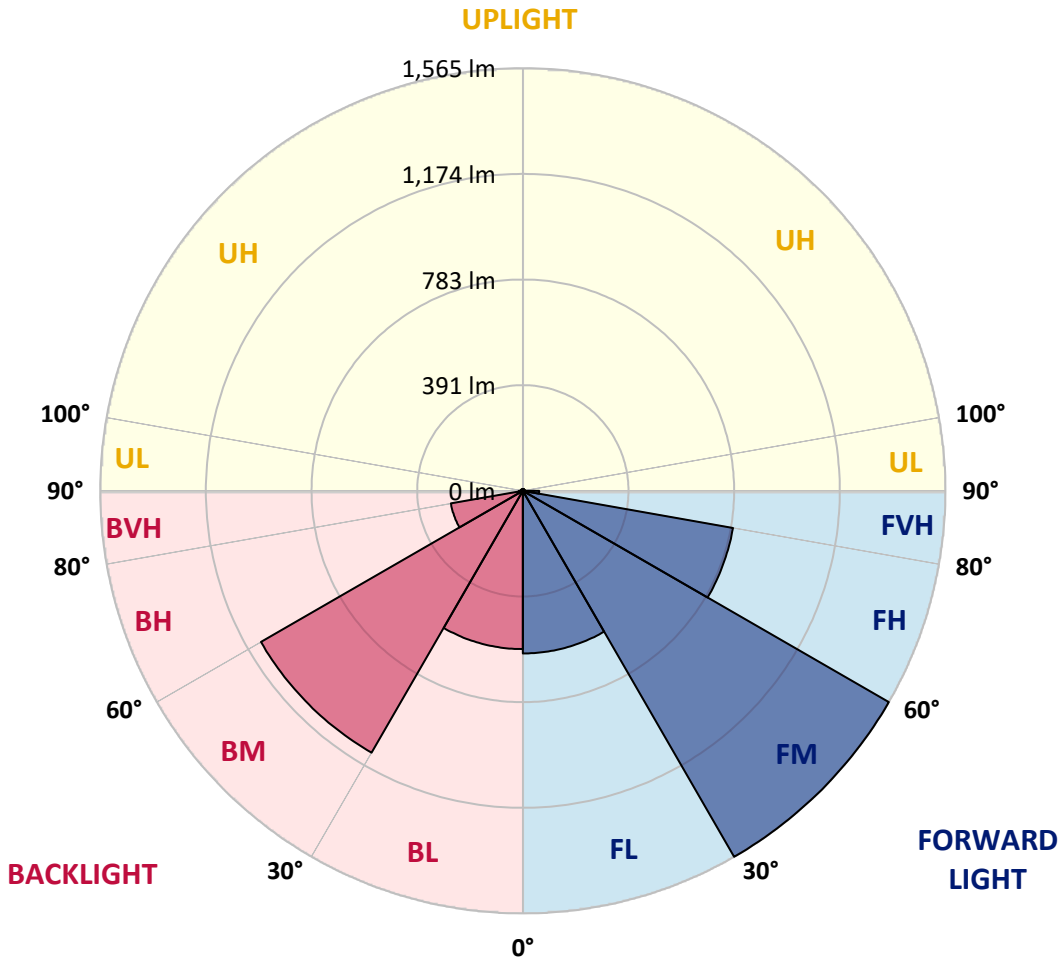
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	602.3	12.0			
FM	(30°-60°)	1565.2	31.1			
FH	(60°-80°)	790.4	15.7			G1/1800
FVH	(80°-90°)	60.3	1.2			G1/100
BL	(0°-30°)	586.3	11.7	B2/1000		
BM	(30°-60°)	1119.9	22.3	B2/2500		
BH	(60°-80°)	270.7	5.4	B1/500		G1/500
BVH	(80°-90°)	15.2	0.3			G1/100
UL	(90°-100°)	9.6	0.2		U1/10	
UH	(100°-180°)	6.8	0.1		U1/10	

BUG Rating: B2-U1-G1
Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	1464.1	1464.1	1464.1	1464.1	1464.1	1464.1	1464.1	1464.1	1464.1	1464.1	1464.1
2.5°	1466.0	1467.9	1467.0	1467.0	1465.1	1466.0	1465.1	1465.1	1464.1	1463.2	1463.2
4°	1467.0	1468.9	1467.0	1467.0	1466.0	1466.0	1465.1	1463.2	1464.1	1461.3	1460.4
5°	1467.9	1468.9	1467.9	1467.9	1466.0	1465.1	1463.2	1463.2	1462.3	1460.4	1460.4
7.5°	1466.0	1467.0	1467.0	1466.0	1464.1	1462.3	1461.3	1460.4	1459.4	1456.6	1456.6
10°	1462.3	1464.1	1462.3	1462.3	1461.3	1459.4	1456.6	1455.6	1452.8	1450.9	1450.0
12.5°	1458.5	1459.4	1458.5	1458.5	1456.6	1453.8	1452.8	1450.9	1447.1	1444.3	1444.3
15°	1452.8	1454.7	1453.8	1452.8	1451.9	1449.0	1446.2	1443.4	1440.5	1437.7	1437.7
17.5°	1446.2	1447.1	1448.1	1447.1	1445.2	1443.4	1440.5	1436.7	1433.9	1431.1	1430.1
20°	1438.6	1440.5	1440.5	1440.5	1438.6	1436.7	1433.0	1429.2	1427.3	1423.5	1422.6
22.5°	1431.1	1433.0	1432.0	1433.0	1432.0	1429.2	1425.4	1421.6	1417.8	1415.0	1413.1
25°	1423.5	1423.5	1423.5	1423.5	1423.5	1419.7	1415.9	1411.2	1407.4	1402.7	1402.7
27.5°	1414.1	1414.1	1415.0	1415.0	1414.1	1411.2	1406.5	1400.8	1395.1	1390.4	1388.5
30°	1405.5	1404.6	1406.5	1408.4	1407.4	1404.6	1398.9	1392.3	1383.8	1377.2	1371.5
32.5°	1395.1	1398.0	1399.9	1403.7	1404.6	1400.8	1394.2	1385.7	1377.2	1364.9	1354.5
35°	1391.4	1391.4	1396.1	1401.8	1403.7	1401.8	1392.3	1382.9	1370.6	1352.6	1340.3
37.5°	1387.6	1388.5	1396.1	1404.6	1407.4	1407.4	1397.0	1384.8	1367.7	1342.2	1327.1
40°	1385.7	1387.6	1397.0	1409.3	1416.9	1415.9	1403.7	1388.5	1367.7	1334.7	1315.7
42.5°	1383.8	1387.6	1398.0	1415.0	1426.3	1425.4	1412.2	1392.3	1365.8	1325.2	1303.5
45°	1381.0	1383.8	1398.0	1419.7	1434.8	1437.7	1422.6	1397.0	1365.8	1316.7	1288.3
47.5°	1372.5	1373.4	1392.3	1417.8	1440.5	1444.3	1429.2	1398.9	1362.1	1302.5	1269.4
50°	1349.8	1352.6	1374.4	1408.4	1434.8	1440.5	1427.3	1394.2	1352.6	1278.9	1239.2
52.5°	1320.5	1320.5	1346.9	1384.8	1416.9	1426.3	1414.1	1377.2	1329.0	1243.9	1198.5
55°	1277.0	1283.6	1311.0	1350.7	1385.7	1398.9	1381.9	1346.0	1290.2	1199.5	1149.4
57.5°	1227.8	1229.7	1258.1	1305.4	1341.3	1349.8	1335.6	1293.1	1239.2	1146.6	1087.0
60°	1157.0	1160.7	1196.7	1238.2	1277.0	1288.3	1270.4	1227.8	1171.1	1078.5	1018.0
62.5°	1078.5	1084.2	1116.3	1158.8	1195.7	1213.7	1191.9	1147.5	1091.7	997.2	944.3
65°	984.0	985.9	1020.8	1069.0	1105.9	1112.5	1093.6	1050.1	994.4	903.6	856.4
67.5°	875.3	884.7	918.8	954.7	986.8	994.4	981.1	931.0	886.6	806.3	760.0
70°	770.4	765.6	794.0	829.9	859.2	865.8	850.7	804.4	762.8	687.2	651.3
72.5°	643.7	639.9	670.2	697.6	725.9	722.1	707.0	670.2	634.2	570.0	536.9
75°	516.1	512.3	535.9	559.6	573.7	575.6	565.2	537.8	499.1	449.0	423.5
77.5°	391.3	395.1	405.5	425.4	438.6	444.3	426.3	398.9	374.3	335.6	316.6
80°	278.8	279.8	283.6	297.7	307.2	307.2	298.7	277.0	249.5	222.1	212.7
82.5°	175.8	179.6	179.6	193.8	193.8	186.2	182.4	168.2	154.1	132.3	119.1
85°	96.4	94.5	100.2	101.1	100.2	94.5	88.9	80.3	70.9	55.8	50.1
87.5°	42.5	41.6	41.6	41.6	40.6	36.9	31.2	24.6	17.0	10.4	7.6
90°	33.1	33.1	32.1	30.2	27.4	24.6	19.8	15.1	9.5	3.8	1.9
92.5°	30.2	30.2	29.3	28.4	25.5	22.7	18.0	13.2	8.5	3.8	1.9
95°	26.5	25.5	25.5	23.6	21.7	18.9	16.1	11.3	7.6	2.8	1.9
97.5°	21.7	20.8	20.8	19.8	18.0	15.1	13.2	9.5	6.6	2.8	1.9
100°	16.1	17.0	16.1	15.1	14.2	12.3	10.4	7.6	4.7	1.9	1.9
102.5°	12.3	12.3	11.3	11.3	10.4	9.5	7.6	5.7	3.8	1.9	0.9
105°	8.5	8.5	8.5	7.6	7.6	6.6	5.7	3.8	2.8	1.9	0.9
107.5°	4.7	4.7	4.7	4.7	4.7	4.7	3.8	2.8	1.9	0.9	0.9

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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
110°	2.8	2.8	2.8	2.8	2.8	2.8	1.9	1.9	0.9	0.9	0.9
112.5°	0.9	0.9	1.9	1.9	1.9	1.9	1.9	0.9	0.9	0.9	0.9
115°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
117.5°	0.0	0.0	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
120°	0.0	0.0	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
122.5°	0.0	0.0	0.0	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
125°	0.0	0.0	0.0	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
127.5°	0.0	0.0	0.0	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
130°	0.0	0.0	0.0	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
132.5°	0.0	0.0	0.0	0.0	0.9	0.9	0.9	0.9	0.9	0.9	0.9
135°	0.0	0.0	0.0	0.0	0.9	0.9	0.9	0.9	0.9	0.9	0.9
137.5°	0.0	0.0	0.0	0.0	0.9	0.9	0.9	0.9	0.9	0.9	0.9
140°	0.0	0.0	0.0	0.0	0.9	0.9	0.9	0.9	0.9	0.9	0.9
142.5°	0.0	0.0	0.0	0.0	0.0	0.9	0.9	0.9	0.9	0.9	0.9
145°	0.9	0.9	0.0	0.0	0.0	0.9	0.9	0.9	0.9	0.9	0.9
147.5°	0.9	0.9	0.0	0.0	0.0	0.9	0.9	0.9	0.9	0.9	0.9
150°	0.9	0.0	0.0	0.0	0.0	0.9	0.9	0.9	0.9	0.9	0.9
152.5°	0.0	0.0	0.0	0.0	0.0	0.9	0.9	0.9	0.9	0.9	0.9
155°	0.0	0.0	0.0	0.0	0.0	0.9	0.9	0.9	0.9	0.9	0.9
157.5°	0.0	0.0	0.0	0.0	0.0	0.9	0.9	0.9	0.9	0.9	0.9
160°	0.0	0.0	0.0	0.0	0.0	0.9	0.9	0.9	0.9	0.9	0.9
162.5°	0.0	0.0	0.0	0.0	0.0	0.9	0.9	0.9	0.9	0.9	0.9
165°	0.0	0.0	0.0	0.0	0.0	0.9	0.9	0.9	0.9	0.9	0.9
167.5°	0.0	0.0	0.0	0.0	0.0	0.9	0.9	0.9	0.9	0.9	0.9
170°	0.0	0.0	0.0	0.0	0.0	0.9	0.9	0.9	0.9	0.9	0.9
172.5°	0.0	0.0	0.0	0.0	0.9	0.9	0.9	0.9	0.9	0.9	0.9
175°	0.0	0.0	0.0	0.0	0.9	0.9	0.9	0.9	0.9	0.9	0.9
177.5°	0.0	0.0	0.0	0.0	0.9	0.9	0.9	0.9	0.9	0.9	0.9
180°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9

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CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1464.1	1464.1	1464.1	1464.1	1464.1	1464.1	1464.1	1464.1	1464.1	1464.1
2.5°	1462.3	1459.4	1461.3	1460.4	1461.3	1459.4	1459.4	1459.4	1460.4	1458.5
4°	*1461.3*	*1459.4*	*1459.4*	*1459.4*	*1459.4*	*1457.5*	*1457.5*	*1457.5*	*1456.6*	*1457.5*
5°	1459.4	1458.5	1457.5	1456.6	1457.5	1455.6	1454.7	1454.7	1454.7	1455.6
7.5°	1455.6	1452.8	1452.8	1450.0	1450.9	1450.0	1449.0	1450.0	1449.0	1449.0
10°	1449.0	1447.1	1446.2	1444.3	1444.3	1442.4	1441.5	1441.5	1441.5	1440.5
12.5°	1442.4	1440.5	1439.6	1437.7	1436.7	1434.8	1433.9	1434.8	1433.0	1433.0
15°	1434.8	1433.0	1432.0	1432.0	1430.1	1428.2	1427.3	1425.4	1425.4	1425.4
17.5°	1428.2	1426.3	1427.3	1425.4	1424.5	1422.6	1422.6	1418.8	1418.8	1417.8
20°	1421.6	1419.7	1419.7	1418.8	1418.8	1416.9	1414.1	1412.2	1411.2	1411.2
22.5°	1413.1	1410.3	1405.5	1398.9	1395.1	1392.3	1391.4	1388.5	1387.6	1385.7
25°	1399.9	1392.3	1381.9	1370.6	1359.2	1353.6	1351.7	1347.9	1347.9	1347.9
27.5°	1383.8	1369.6	1355.4	1338.4	1321.4	1310.1	1302.5	1298.7	1296.8	1296.8
30°	1363.0	1345.1	1325.2	1303.5	1284.6	1263.8	1250.5	1243.0	1239.2	1240.1
32.5°	1344.1	1321.4	1298.7	1271.3	1245.8	1221.2	1198.5	1187.2	1182.5	1180.6
35°	1325.2	1299.7	1272.3	1243.0	1209.9	1174.0	1143.7	1126.7	1117.3	1118.2
37.5°	1311.0	1280.8	1250.5	1214.6	1176.8	1133.3	1094.6	1067.2	1055.8	1057.7
40°	1295.9	1261.9	1228.8	1187.2	1142.8	1090.8	1040.7	1003.8	990.6	987.8
42.5°	1281.7	1242.0	1204.2	1159.8	1104.0	1045.4	984.0	940.5	920.6	917.8
45°	1263.8	1219.3	1178.7	1127.7	1066.2	993.4	921.6	864.9	844.1	835.6
47.5°	1240.1	1191.0	1145.6	1087.0	1019.9	937.7	847.9	777.9	751.5	744.8
50°	1205.2	1148.4	1102.1	1036.0	954.7	863.9	763.7	677.7	642.8	638.0
52.5°	1158.8	1101.2	1049.2	973.6	874.3	767.5	654.1	565.2	524.6	521.8
55°	1103.1	1040.7	984.0	898.9	782.6	658.8	540.7	428.2	388.5	383.8
57.5°	1037.9	973.6	912.1	807.2	673.0	535.0	397.9	290.2	252.4	242.9
60°	966.0	899.9	830.9	703.2	525.5	379.0	241.0	154.1	125.7	116.3
62.5°	896.1	824.2	751.5	579.4	360.1	216.5	109.6	44.4	28.4	27.4
65°	813.8	745.8	671.1	466.9	227.8	97.4	32.1	0.9	0.0	0.0
67.5°	718.4	660.7	594.5	417.8	201.3	85.1	27.4	0.9	0.0	0.0
70°	616.3	570.9	512.3	359.2	173.0	71.8	23.6	0.0	0.0	0.0
72.5°	508.5	469.8	426.3	298.7	143.7	59.5	18.9	0.0	0.0	0.0
75°	398.9	374.3	335.6	236.3	111.5	45.4	14.2	0.0	0.0	0.0
77.5°	295.9	276.0	247.6	173.9	84.1	33.1	10.4	0.0	0.0	0.0
80°	199.4	184.3	168.2	118.2	56.7	21.7	6.6	0.0	0.0	0.0
82.5°	116.3	104.9	94.5	67.1	31.2	12.3	2.8	0.0	0.0	0.0
85°	47.3	43.5	41.6	28.4	12.3	3.8	0.9	0.0	0.0	0.0
87.5°	5.7	4.7	4.7	2.8	0.9	0.0	0.0	0.0	0.0	0.0
90°	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
92.5°	0.9	0.9	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0
95°	0.9	0.9	0.9	0.9	0.9	0.9	0.0	0.0	0.0	0.0
97.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.0
100°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
102.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
105°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
107.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9

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

Scaled Data Report

REPORT NUMBER: P821218
CATALOG NUMBER: TT-D3-735-24VDC-CQ-HSS

CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
110°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
112.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
115°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
117.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
120°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
122.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
125°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
127.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
130°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
132.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
135°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
137.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.0	0.0
140°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.0	0.0
142.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.0	0.0	0.0
145°	0.9	0.9	0.9	0.9	0.9	0.9	0.0	0.0	0.0	0.0
147.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.0	0.0	0.0	0.9
150°	0.9	0.9	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0
152.5°	0.9	0.9	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0
155°	0.9	0.9	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0
157.5°	0.9	0.9	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0
160°	0.9	0.9	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0
162.5°	0.9	0.9	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0
165°	0.9	0.9	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0
167.5°	0.9	0.9	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0
170°	0.9	0.9	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0
172.5°	0.9	0.9	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0
175°	0.9	0.9	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0
177.5°	0.9	0.9	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0
180°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9

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

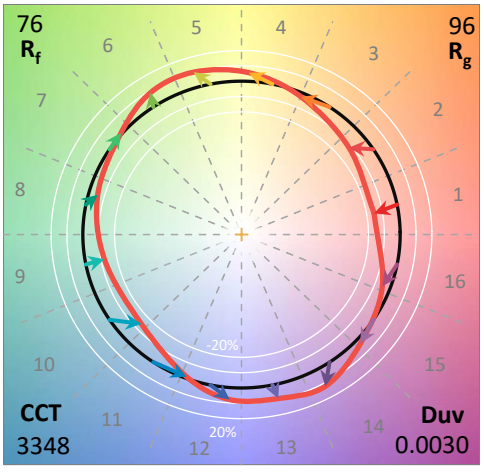
Test Information

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

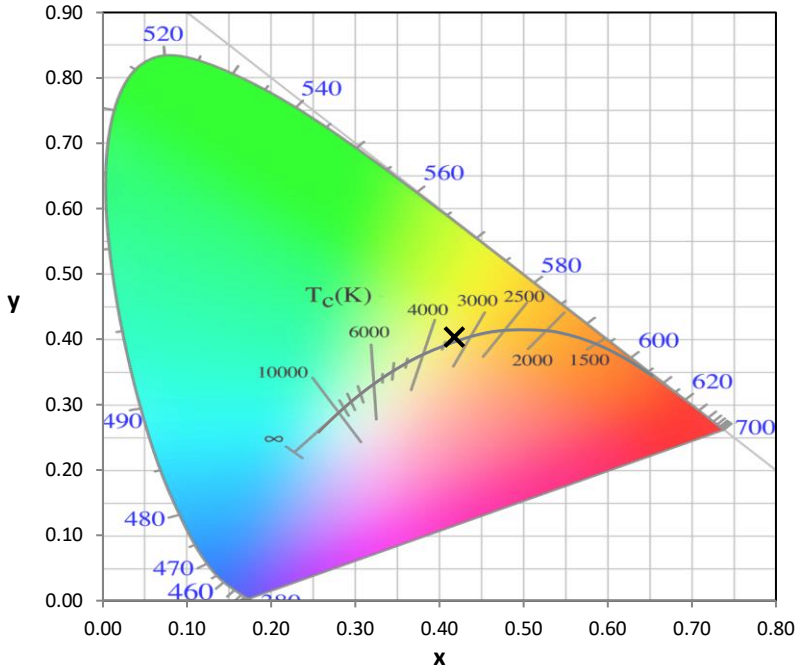
Stabilization Time:	30M
Operation Time:	1H 30M
Sphere Temperature (°C):	25.2

REPORT NUMBER: SP1-2407-176-4

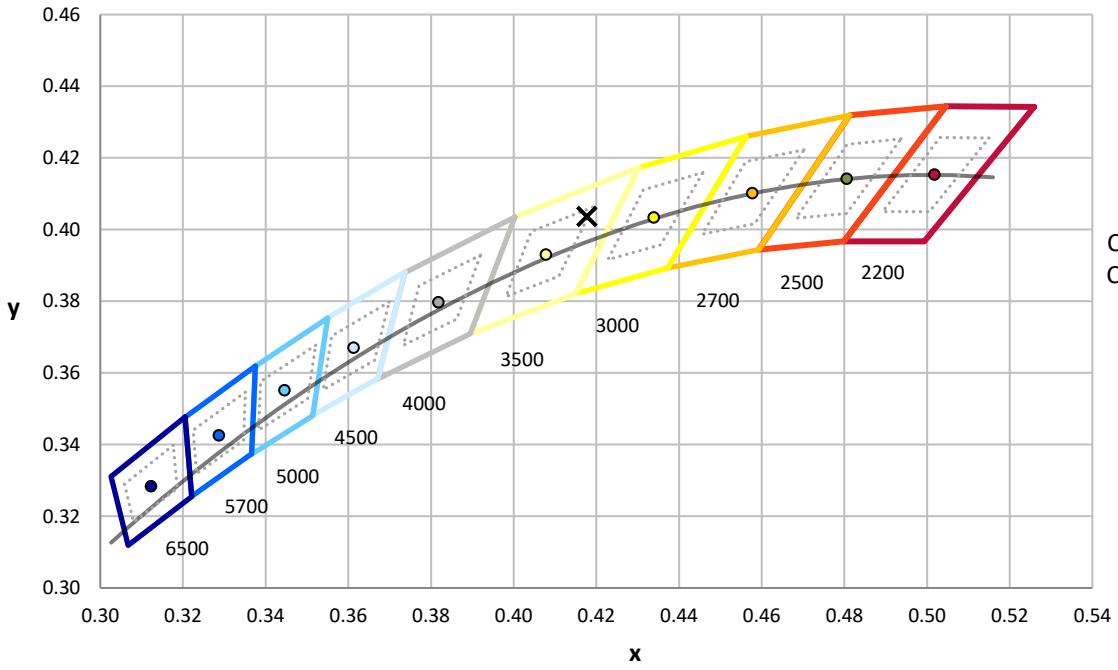
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

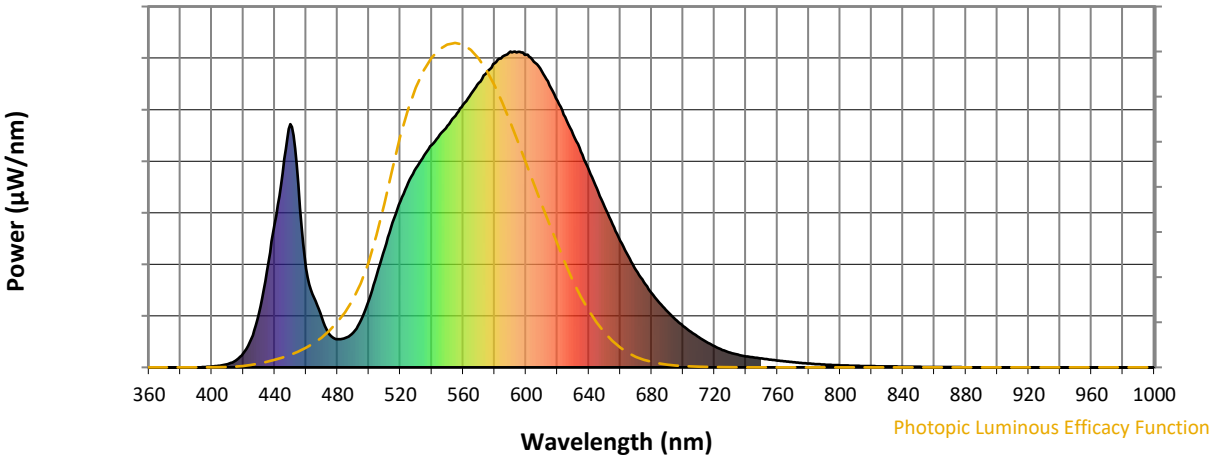


CCT = 3348K
CIE x = 0.4177
CIE y = 0.4036
Duv = 0.0030

Point lies inside the ANSI 3500K 4-step quadrangle

REPORT NUMBER: SP1-2407-176-4

Photopic Flux vs. Wavelength

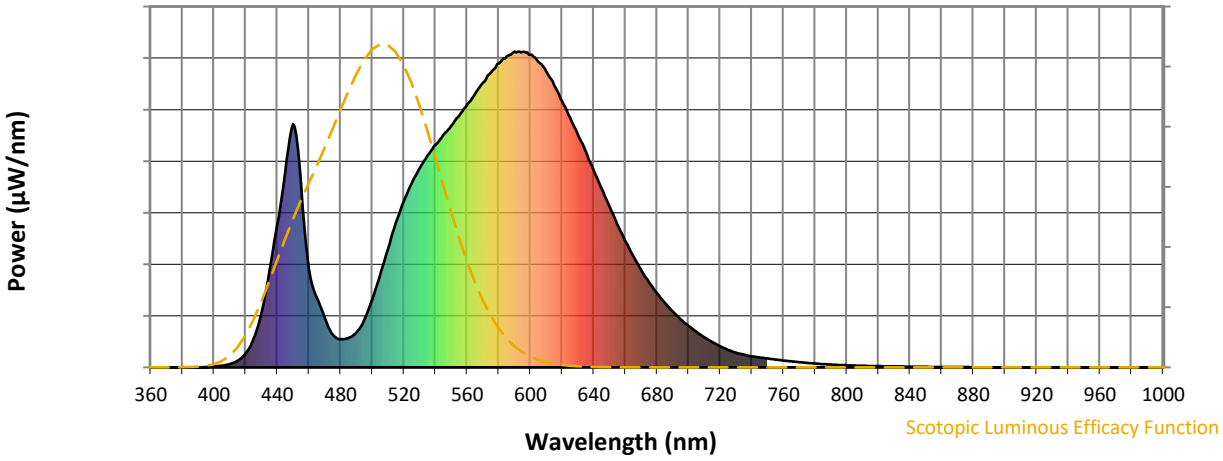


Photopic Lumens: NR

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

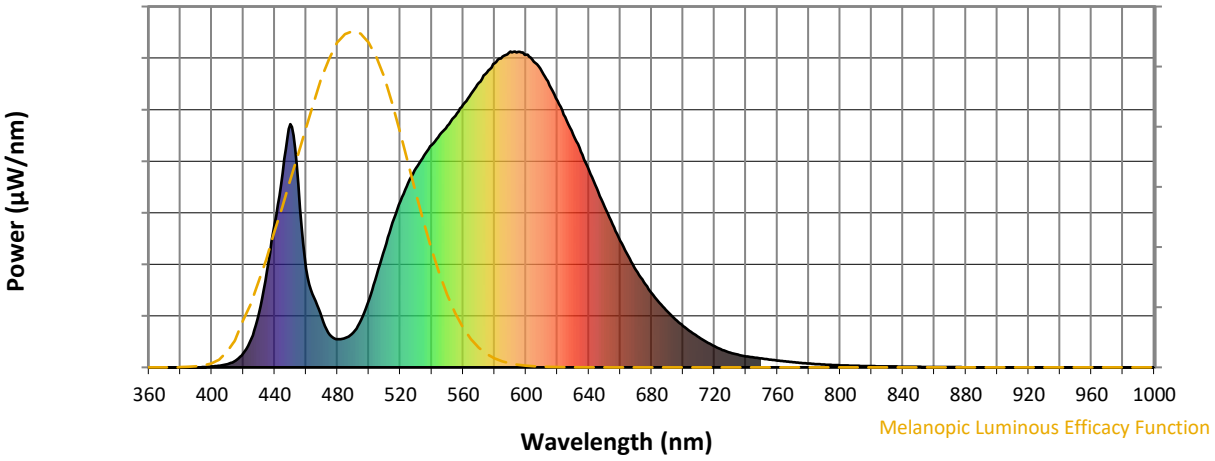


Scotopic Lumens: NR **S/P: 1.31**

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			

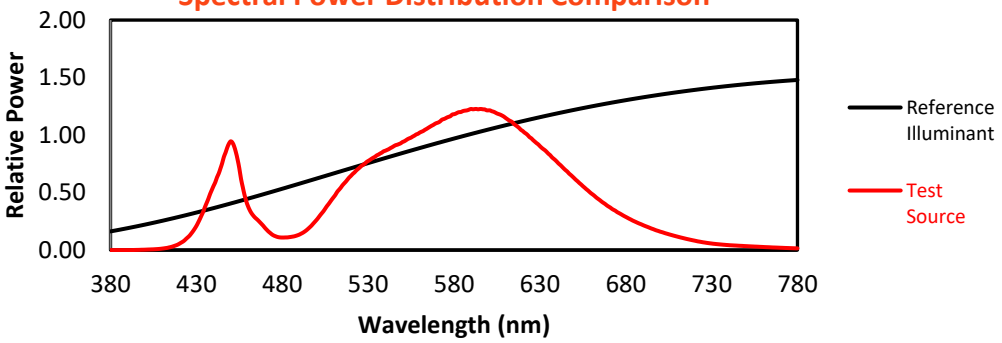
REPORT NUMBER: SP1-2407-176-4

TM-30-18

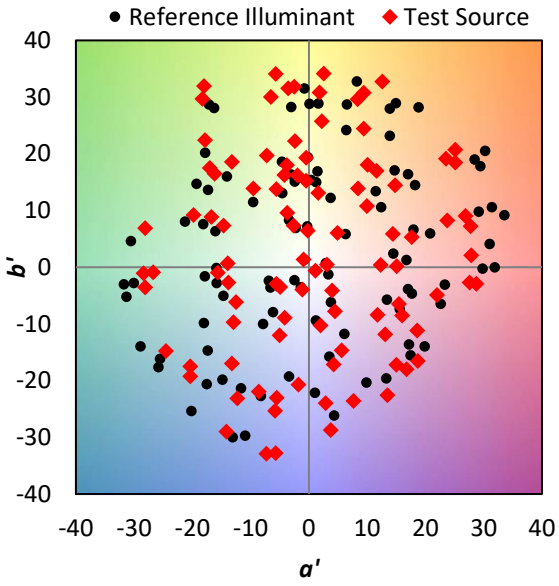
Summary

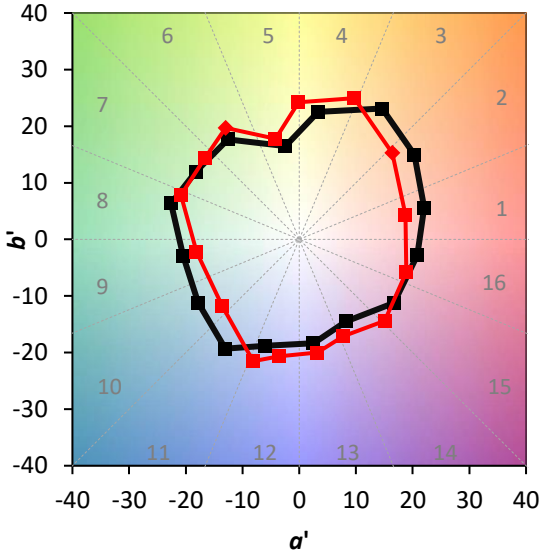
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R_g = 95.8
CIE R_a = 73.4
R_9 = -19.2

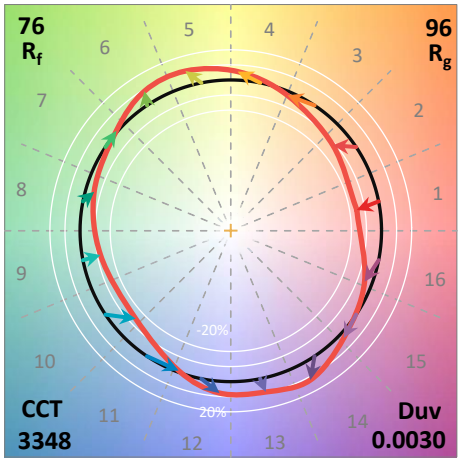
Spectral Power Distribution Comparison

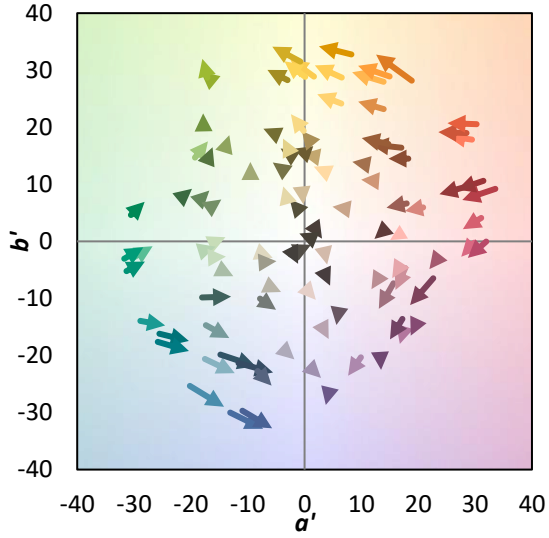


Color Vector Graphics







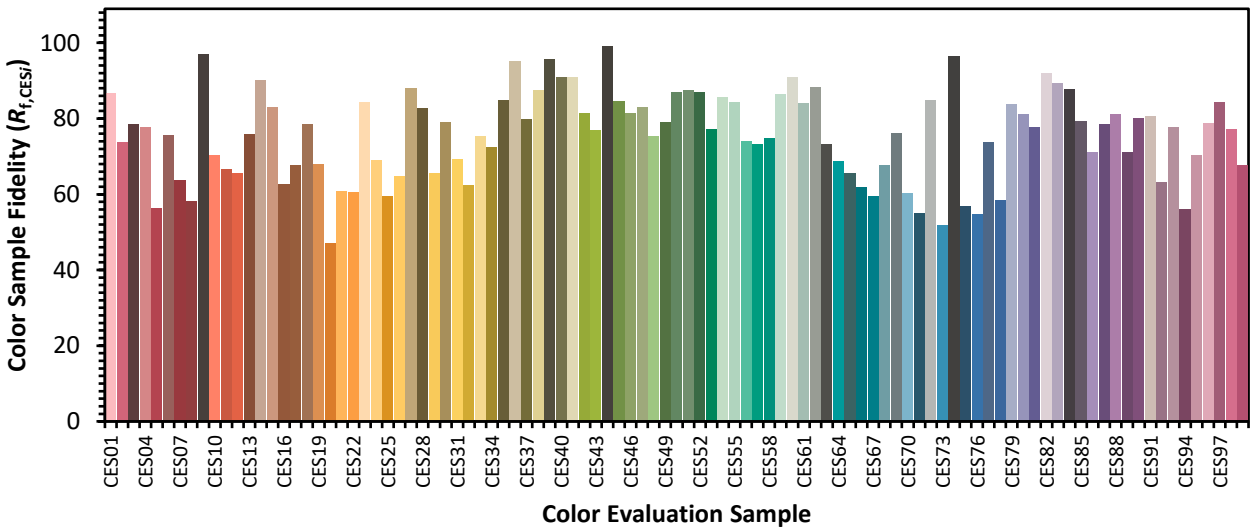


REPORT NUMBER: SP1-2407-176-4

TM-30-18

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

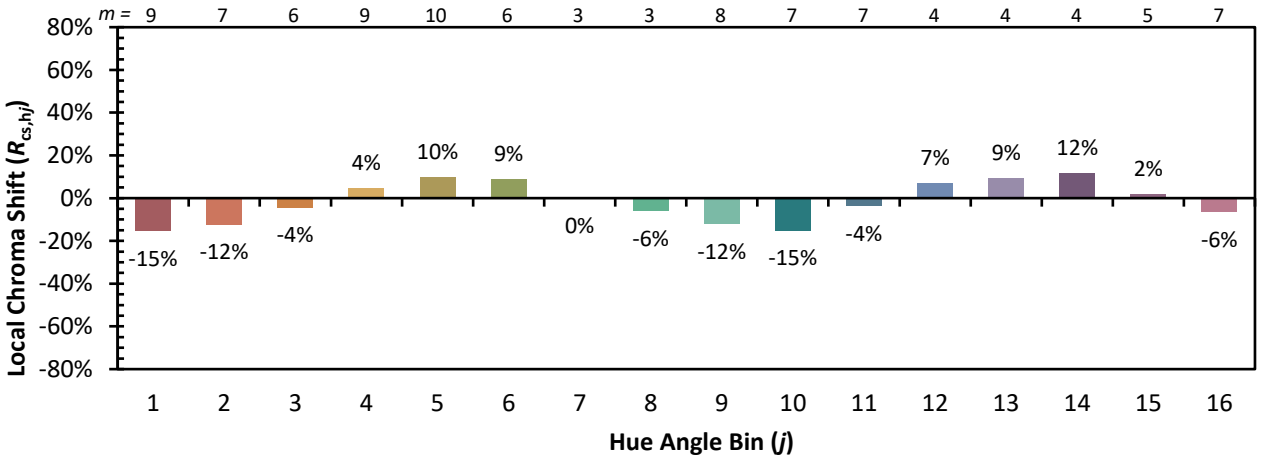
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CES02 = 62	CES27 = 88	CES52 = 87	CES77 = 74
CES03 = 31	CES28 = 83	CES53 = 77	CES78 = 58
CES04 = 70	CES29 = 66	CES54 = 86	CES79 = 84
CES05 = 48	CES30 = 79	CES55 = 84	CES80 = 81
CES06 = 51	CES31 = 69	CES56 = 74	CES81 = 78
CES07 = 41	CES32 = 62	CES57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

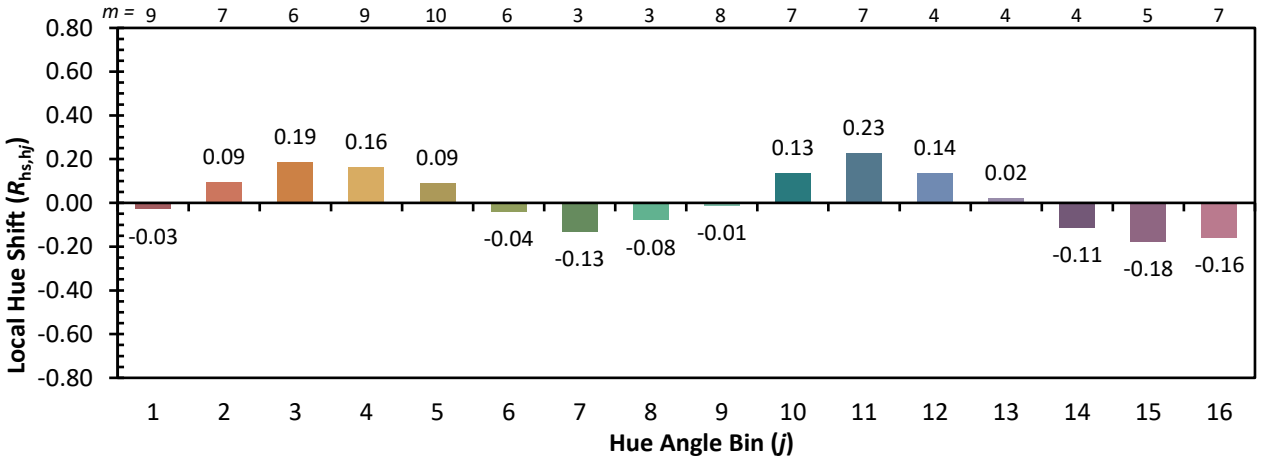


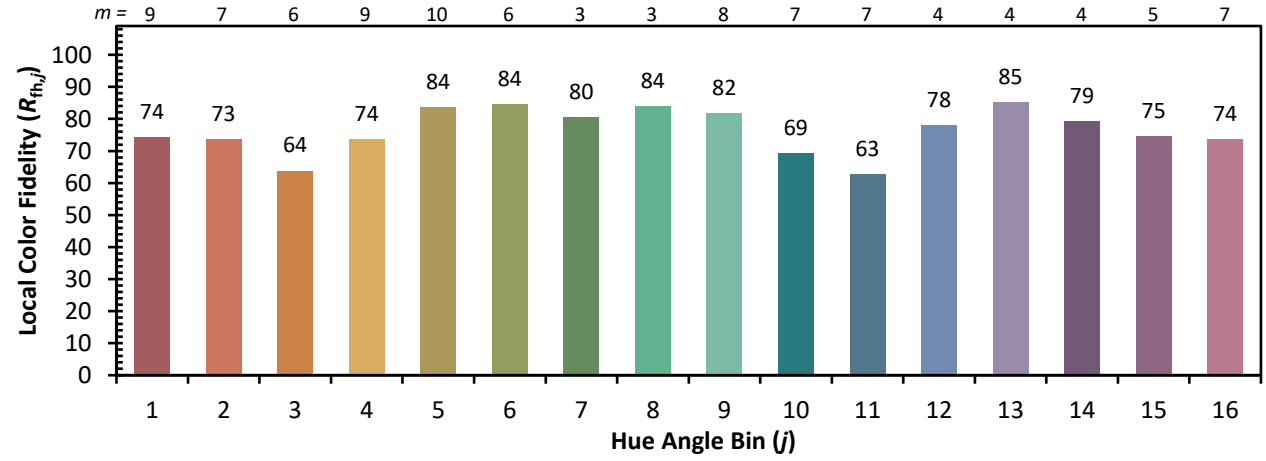
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Color Rendition by Hue-Angle Bin



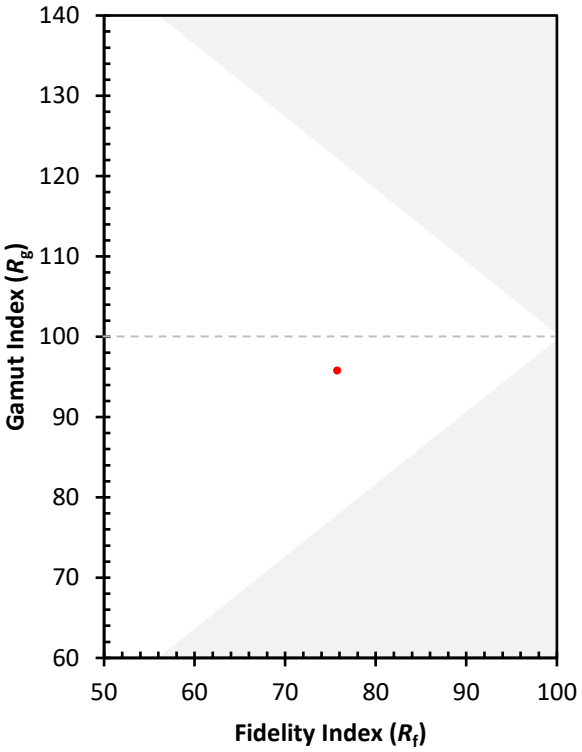


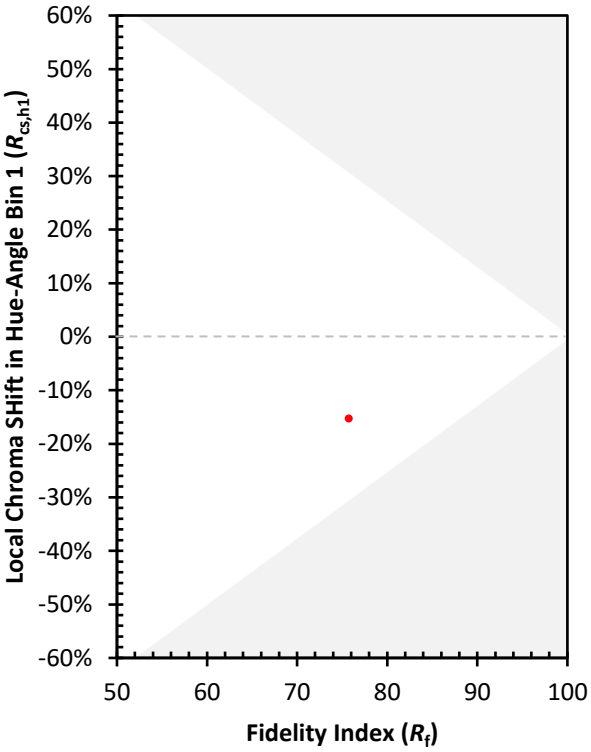


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Measure Comparisons





(END OF REPORT)