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: P436801

Luminaire Tested: **TT-D3-735-U-RW-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:	P436801
	TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2010-017-5)
Test Lab:	INNOVATION CENTER
Issue Date:	12/2/2020
Manufacturer:	COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line:	McGRAW-EDISON
Catalog Number:	TT-D3-735-U-RW-PM-HSS
Description:	TOPTIER LED SITE LUMINAIRE
	3500K, 70 CRI LEDS AND RECTANGULAR DISTRIBUTION WITH HOUSE SIDE SHIELD
Light Source:	-
Ballast/Driver:	ELECTRONIC DRIVER

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	3792.9 lumens
Efficiency:	N/A
Efficacy:	80.4 lumens/watt
Luminous Opening:	Circular (Dia: 1.12' x H: 0')
IES Classification:	Type IV - Short
BUG Rating:	B1 - U2 - G3

Input Watts (W):	47.2
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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REPORT NUMBER: P436801
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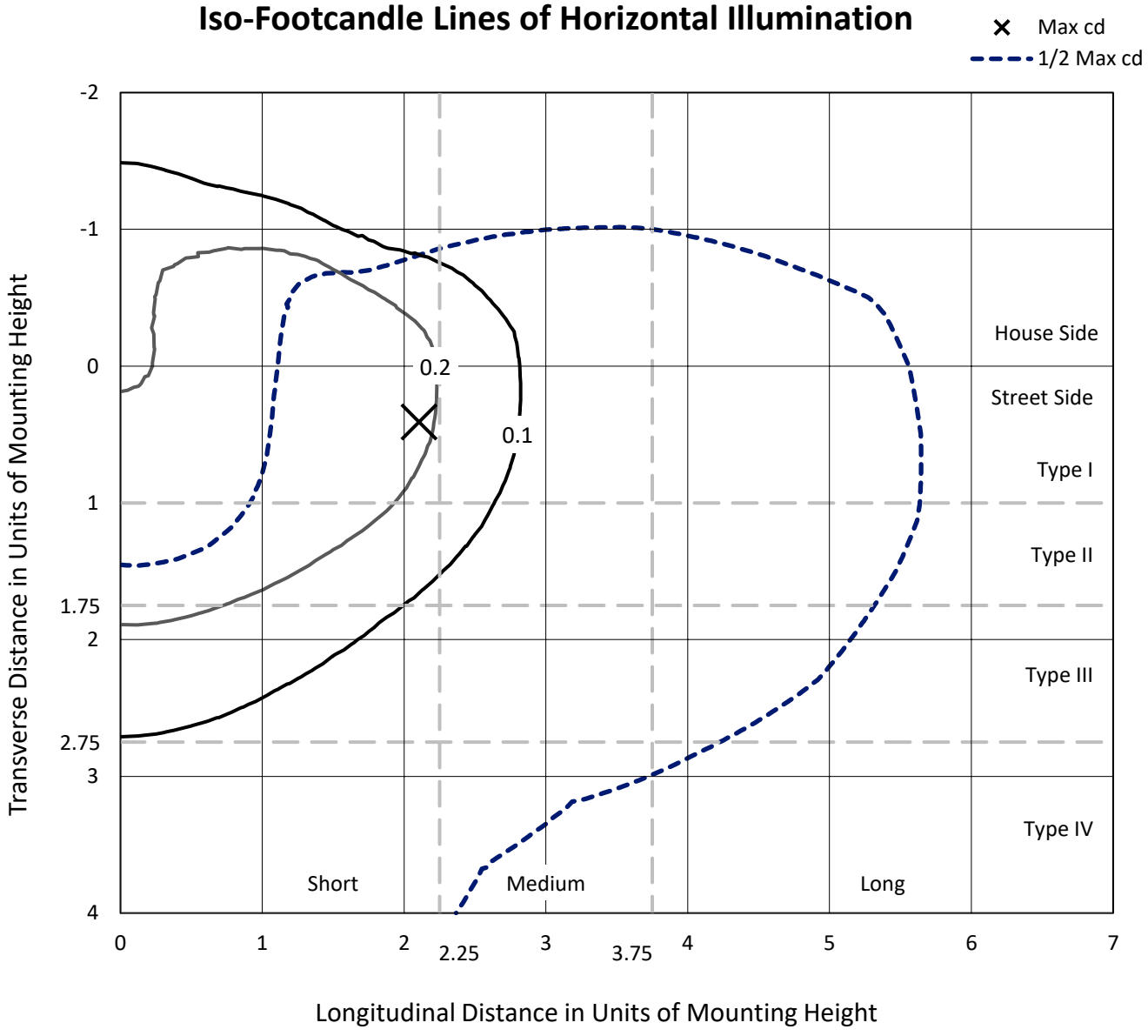
Iso-Footcandle Lines of Horizontal Illumination



Based on 25 foot mounting height. Maximum calculated value = 0.5 fc
Type IV - Short - N/A

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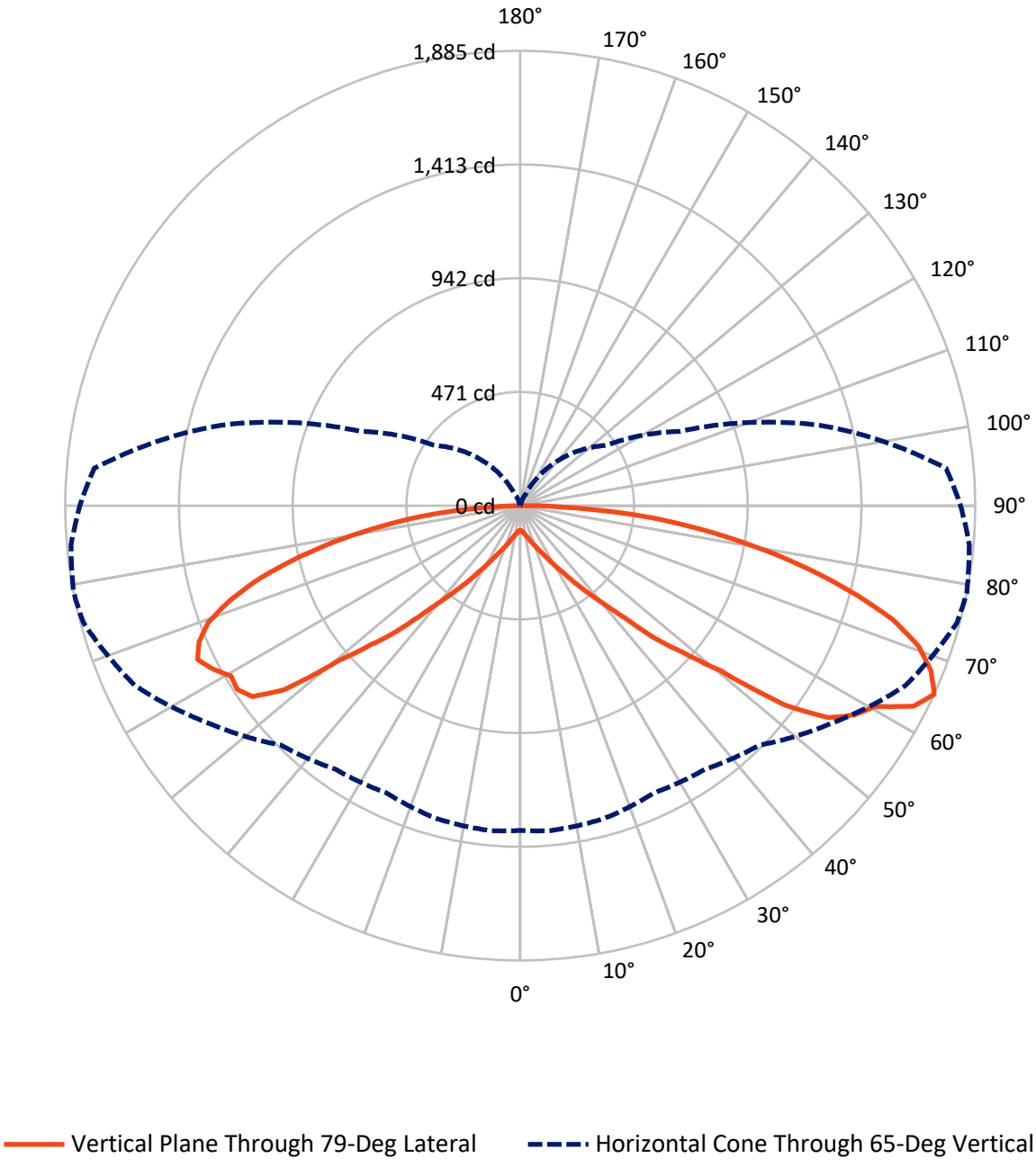
Luminous Intensity Polar Plot



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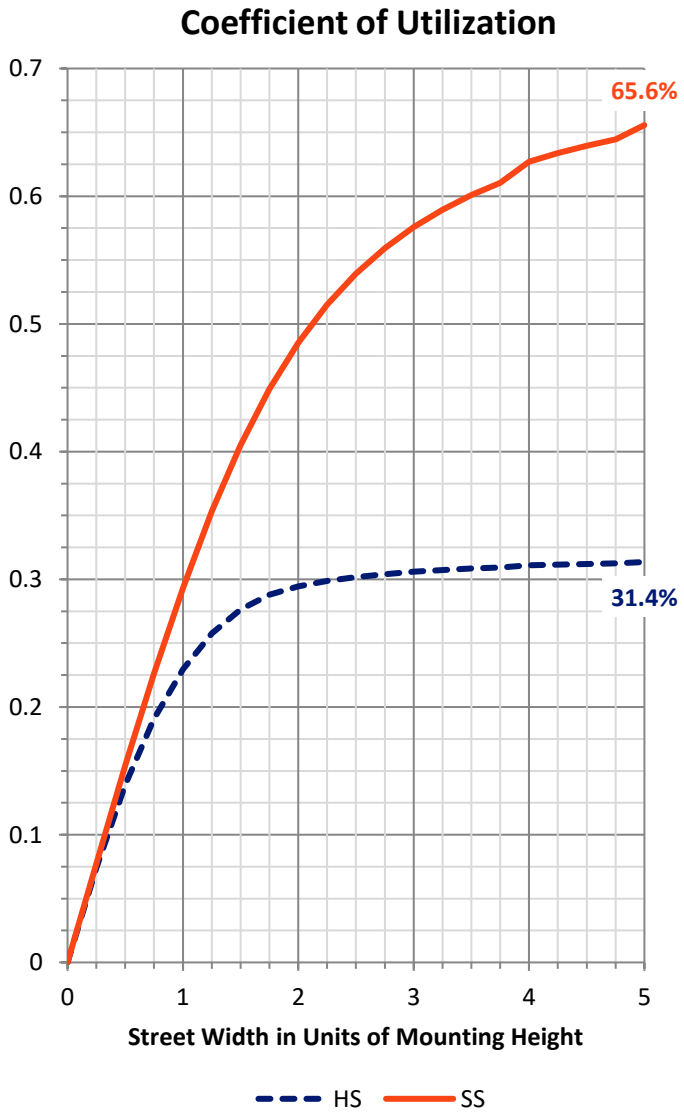
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1197.8	1.4	1199.2
	% Fixture	31.6	0.0	31.6
Street Side	Lumens	2577.0	16.7	2593.7
	% Fixture	67.9	0.4	68.4
Total	Lumens	3774.7	18.1	3792.9
	% Fixture	99.5	0.5	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	10.8	0.3
10°-20°	40.9	1.1
20°-30°	94.2	2.5
30°-40°	201.9	5.3
40°-50°	432.4	11.4
50°-60°	816.7	21.5
60°-70°	1015.0	26.8
70°-80°	868.9	22.9
80°-90°	293.9	7.7
90°-100°	12.7	0.3
100°-110°	3.6	0.1
110°-120°	0.8	0.0
120°-130°	0.4	0.0
130°-140°	0.3	0.0
140°-150°	0.2	0.0
150°-160°	0.1	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	3774.7	99.5
0°-180°	3792.9	100.0



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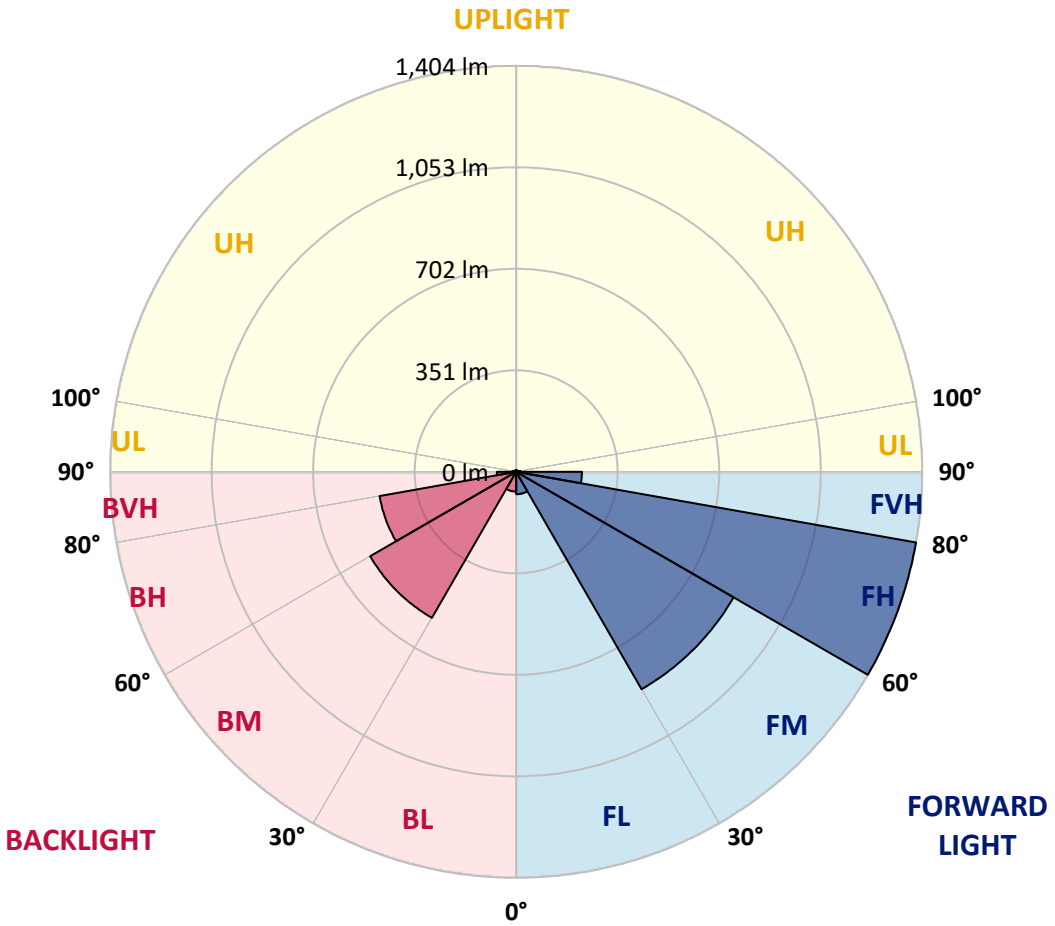
LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	77.6	2.0			
FM	(30°-60°)	868.0	22.9			
FH	(60°-80°)	1404.0	37.0			G1/1800
FVH	(80°-90°)	227.4	6.0			G3/500
BL	(0°-30°)	68.3	1.8	B0/110		
BM	(30°-60°)	583.0	15.4	B1/1000		
BH	(60°-80°)	479.9	12.7	B1/500		G1/500
BVH	(80°-90°)	66.5	1.8			G1/100
UL	(90°-100°)	12.7	0.3		U2/50	
UH	(100°-180°)	5.4	0.1		U1/10	

BUG Rating: B1-U2-G3
Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	79°	85°
0°	103.0	103.0	103.0	103.0	103.0	103.0	103.0	103.0	103.0	103.0	103.0
2.5°	108.7	108.7	108.7	107.7	107.7	107.7	106.8	105.9	104.9	104.9	104.9
5°	114.4	114.4	114.4	114.4	113.4	112.5	111.5	110.6	109.6	109.6	108.7
7.5°	121.9	121.0	121.9	121.0	121.0	120.0	119.1	118.1	116.3	116.3	115.3
10°	129.5	129.5	129.5	129.5	129.5	128.5	127.6	126.6	125.7	124.8	123.8
12.5°	138.9	138.9	138.9	138.0	138.9	138.0	137.0	137.0	136.1	134.2	134.2
15°	148.4	148.4	148.4	148.4	149.3	149.3	149.3	148.4	148.4	147.4	146.5
17.5°	159.7	158.8	159.7	159.7	160.7	161.6	162.6	163.5	163.5	162.6	162.6
20°	172.0	171.1	172.0	172.0	173.9	175.8	178.6	180.5	181.5	179.6	179.6
22.5°	185.2	184.3	186.2	186.2	189.0	191.9	196.6	198.5	201.3	200.4	200.4
25°	201.3	200.4	201.3	202.3	206.0	210.8	216.4	221.2	224.0	224.0	224.9
27.5°	219.3	219.3	220.2	221.2	224.9	232.5	241.0	249.5	256.1	255.2	256.1
30°	243.8	243.8	245.7	246.7	251.4	259.9	271.3	282.6	292.0	292.0	293.9
32.5°	271.3	270.3	273.1	274.1	278.8	290.2	306.2	324.2	336.5	336.5	338.4
35°	304.3	303.4	306.2	306.2	311.9	328.0	348.8	373.3	394.1	395.1	397.9
37.5°	345.9	344.0	344.0	346.9	353.5	374.3	402.6	436.7	458.4	460.3	465.0
40°	395.1	394.1	396.0	395.1	403.6	429.1	465.0	504.7	530.2	535.0	540.6
42.5°	455.6	457.5	454.6	454.6	465.0	494.3	536.8	583.2	629.5	635.1	638.0
45°	529.3	533.1	529.3	528.3	537.8	571.8	630.4	711.7	765.6	784.5	790.1
47.5°	618.1	620.0	615.3	613.4	623.8	667.3	742.9	833.6	896.9	911.1	926.2
50°	717.4	714.5	710.7	707.9	727.8	781.6	869.5	963.1	1071.8	1073.7	1079.4
52.5°	819.4	810.9	811.9	810.9	838.3	896.9	1014.1	1172.9	1338.3	1372.4	1376.1
55°	921.5	911.1	910.2	919.6	958.4	1042.5	1189.9	1396.0	1530.2	1551.0	1548.1
57.5°	1023.6	1018.9	1017.0	1025.5	1082.2	1182.4	1348.7	1522.6	1637.0	1635.1	1615.3
60°	1129.4	1133.2	1126.6	1142.7	1201.3	1301.5	1422.4	1591.6	1697.5	1689.0	1669.1
62.5°	1238.1	1247.6	1241.0	1242.9	1280.7	1354.4	1473.5	1670.1	1816.6	1828.9	1806.2
65°	1345.9	1352.5	1342.1	1312.8	1333.6	1402.6	1572.7	1761.8	1873.3	1884.6	1867.6
67.5°	1436.6	1443.2	1407.3	1361.0	1363.8	1413.9	1563.3	1743.8	1843.0	1835.5	1808.1
70°	1514.1	1501.8	1443.2	1363.8	1330.8	1354.4	1495.2	1654.9	1756.1	1752.3	1720.2
72.5°	1539.6	1523.6	1424.3	1301.5	1236.2	1244.8	1381.8	1524.5	1606.7	1613.4	1574.6
75°	1499.0	1471.6	1335.5	1181.4	1097.3	1103.0	1220.2	1351.6	1417.7	1410.2	1379.9
77.5°	1352.5	1325.1	1177.7	1013.2	931.0	939.5	1032.1	1135.1	1189.9	1187.1	1166.3
80°	1122.8	1098.3	968.8	815.7	741.0	745.7	816.6	897.9	940.4	949.9	938.5
82.5°	829.8	812.8	721.1	597.3	536.8	535.9	589.8	652.2	693.7	713.6	706.0
85°	513.2	504.7	453.7	373.3	330.8	329.9	362.0	408.3	446.1	472.6	455.6
87.5°	204.2	201.3	186.2	150.3	131.4	124.8	117.2	146.5	149.3	176.7	175.8
90°	50.1	49.1	48.2	45.4	40.6	35.0	28.4	20.8	13.2	10.4	5.7
92.5°	44.4	44.4	43.5	40.6	36.9	31.2	25.5	18.9	12.3	9.5	4.7
95°	35.9	35.9	35.0	33.1	29.3	25.5	19.8	15.1	9.5	7.6	3.8
97.5°	27.4	26.5	26.5	24.6	22.7	18.9	15.1	11.3	7.6	5.7	2.8
100°	19.8	19.8	18.9	18.0	16.1	14.2	11.3	8.5	4.7	3.8	1.9
102.5°	14.2	13.2	13.2	13.2	11.3	9.5	7.6	5.7	3.8	2.8	0.9
105°	9.5	8.5	8.5	8.5	7.6	6.6	4.7	3.8	1.9	1.9	0.9
107.5°	5.7	5.7	5.7	5.7	4.7	3.8	2.8	1.9	0.9	0.9	0.9
110°	2.8	2.8	2.8	3.8	2.8	2.8	1.9	0.9	0.9	0.9	0.9

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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	79°	85°
112.5°	1.9	1.9	1.9	1.9	1.9	1.9	0.9	0.9	0.9	*0.9*	0.9
115°	0.9	0.9	0.9	1.9	1.9	0.9	0.9	0.0	0.0	*0.9*	0.9
117.5°	0.0	0.0	0.9	0.9	0.9	0.9	0.0	0.0	0.0	*0.0*	0.9
120°	0.0	0.0	0.9	0.9	0.9	0.9	0.0	0.0	0.0	*0.0*	0.9
122.5°	0.0	0.0	0.9	0.9	0.9	0.9	0.0	0.0	0.0	*0.0*	0.9
125°	0.0	0.0	0.0	0.9	0.9	0.9	0.0	0.0	0.0	*0.0*	0.9
127.5°	0.0	0.0	0.0	0.9	0.9	0.9	0.0	0.0	0.0	*0.0*	0.9
130°	0.0	0.0	0.0	0.9	0.9	0.9	0.0	0.0	0.0	*0.0*	0.9
132.5°	0.0	0.0	0.0	0.9	0.9	0.9	0.0	0.0	0.0	*0.0*	0.9
135°	0.0	0.0	0.0	0.9	0.9	0.0	0.0	0.0	0.0	*0.0*	0.0
137.5°	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.0	*0.0*	0.0
140°	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.0	*0.0*	0.0
142.5°	0.0	0.0	0.0	0.0	0.9	0.9	0.0	0.0	0.0	*0.0*	0.0
145°	0.0	0.0	0.0	0.9	0.9	0.9	0.9	0.0	0.0	*0.0*	0.0
147.5°	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.0	*0.0*	0.0
150°	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.0	*0.0*	0.0
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	*0.0*	0.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	*0.0*	0.0
157.5°	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.0	*0.0*	0.0
160°	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.0	*0.0*	0.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	*0.0*	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	*0.0*	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	*0.0*	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	*0.0*	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	*0.0*	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	*0.0*	0.0
177.5°	0.0	0.0	0.0	0.9	0.0	0.9	0.0	0.0	0.0	*0.0*	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	*0.0*	0.0

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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	103.0	103.0	103.0	103.0	103.0	103.0	103.0	103.0	103.0	103.0	103.0
2.5°	104.0	104.0	104.0	103.0	103.0	103.0	102.1	102.1	101.1	101.1	101.1
5°	107.7	107.7	106.8	106.8	105.9	104.9	104.9	104.0	104.0	103.0	103.0
7.5°	114.4	114.4	113.4	112.5	110.6	109.6	108.7	107.7	107.7	106.8	106.8
10°	122.9	122.9	121.0	119.1	117.2	115.3	114.4	112.5	111.5	111.5	111.5
12.5°	133.3	132.3	130.4	127.6	125.7	122.9	121.0	119.1	117.2	117.2	117.2
15°	145.6	145.6	141.8	138.9	135.2	131.4	128.5	125.7	123.8	122.9	122.9
17.5°	160.7	160.7	155.9	151.2	146.5	141.8	138.0	134.2	132.3	131.4	131.4
20°	177.7	177.7	173.0	167.3	160.7	154.1	148.4	143.7	140.8	139.9	139.9
22.5°	198.5	198.5	191.9	184.3	175.8	166.3	158.8	153.1	150.3	148.4	148.4
25°	222.1	220.2	213.6	204.2	191.9	180.5	170.1	164.5	160.7	157.8	158.8
27.5°	254.2	251.4	242.9	226.8	211.7	196.6	184.3	176.7	172.0	170.1	171.1
30°	291.1	288.3	276.0	258.0	235.3	215.5	200.4	191.9	187.1	184.3	185.2
32.5°	335.5	331.7	316.6	292.0	265.6	237.2	218.3	207.9	203.2	200.4	199.4
35°	394.1	389.4	370.5	336.5	299.6	265.6	239.1	225.9	221.2	218.3	219.3
37.5°	460.3	453.7	428.2	386.6	340.3	296.8	266.5	249.5	243.8	239.1	239.1
40°	535.9	528.3	495.3	440.4	384.7	330.8	292.0	273.1	266.5	266.5	266.5
42.5°	630.4	622.9	585.0	504.7	431.0	367.7	321.3	299.6	293.0	294.9	294.9
45°	776.9	766.5	706.0	600.2	491.5	405.5	351.6	327.0	322.3	327.0	327.0
47.5°	911.1	897.9	809.0	689.0	551.0	443.3	381.8	353.5	351.6	362.0	362.0
50°	1061.4	1044.4	950.8	760.8	599.2	484.9	409.2	375.2	376.2	391.3	396.0
52.5°	1352.5	1334.5	1172.9	891.3	651.2	500.0	420.6	379.9	379.9	397.0	403.6
55°	1525.5	1488.6	1277.8	976.3	672.9	517.9	415.9	361.0	359.2	378.1	383.7
57.5°	1582.2	1544.4	1299.6	951.8	658.8	495.3	388.5	310.0	306.2	330.8	328.9
60°	1628.5	1578.4	1264.6	869.5	578.4	447.1	335.5	230.6	214.5	236.3	235.3
62.5°	1758.9	1705.0	1266.5	773.1	483.9	373.3	252.4	129.5	96.4	113.4	105.9
65°	*1824.1*	*1771.2*	*1286.3*	*727.8*	*435.7*	*309.1*	*180.5*	*52.9*	*3.8*	*3.8*	*1.9*
67.5°	1768.4	1721.1	1260.8	716.4	429.1	307.2	183.4	52.0	0.0	0.0	0.0
70°	1687.1	1641.7	1202.2	676.7	407.4	295.8	179.6	52.0	0.0	0.0	0.0
72.5°	1544.4	1498.1	1101.1	620.0	374.3	271.3	166.3	49.1	0.0	0.0	0.0
75°	1356.3	1321.3	972.6	546.3	329.9	239.1	147.4	43.5	0.0	0.0	0.0
77.5°	1148.4	1106.8	815.7	454.6	276.0	198.5	124.8	35.9	0.0	0.0	0.0
80°	921.5	891.3	642.7	356.3	213.6	155.0	97.3	27.4	0.0	0.0	0.0
82.5°	685.2	659.7	475.4	255.2	152.2	107.7	67.1	18.0	0.0	0.0	0.0
85°	449.9	443.3	305.3	155.0	90.7	59.5	35.9	8.5	0.0	0.0	0.0
87.5°	162.6	168.2	111.5	44.4	24.6	10.4	4.7	0.9	0.0	0.0	0.0
90°	0.9	0.9	0.9	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0
92.5°	0.9	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	0.0
97.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0
100°	0.9	0.9	0.9	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0
102.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0
105°	0.9	0.9	0.9	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0
107.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0
110°	0.9	0.9	0.9	0.9	0.9	0.9	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: P436801
CATALOG NUMBER: TT-D3-735-U-RW-PM-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
112.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0
115°	0.9	0.9	0.9	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0
117.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0
120°	0.9	0.9	0.9	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0
122.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0
125°	0.9	0.9	0.9	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0
127.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0
130°	0.9	0.9	0.9	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0
132.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0
135°	0.9	0.9	0.9	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0
137.5°	0.0	0.9	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.9	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	0.0	0.0	0.9	0.9	0.9	0.0	0.0	0.0	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	0.0
147.5°	0.0	0.9	0.9	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.9	0.9	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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

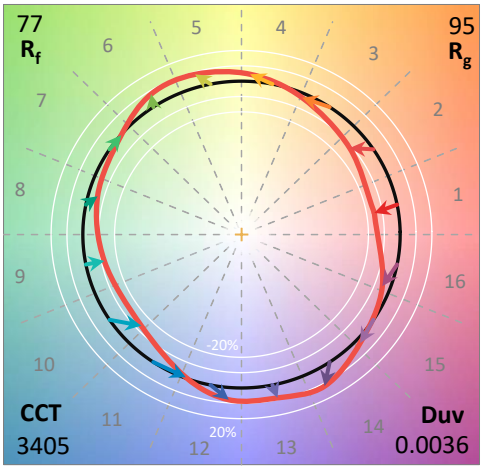
Test Information

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

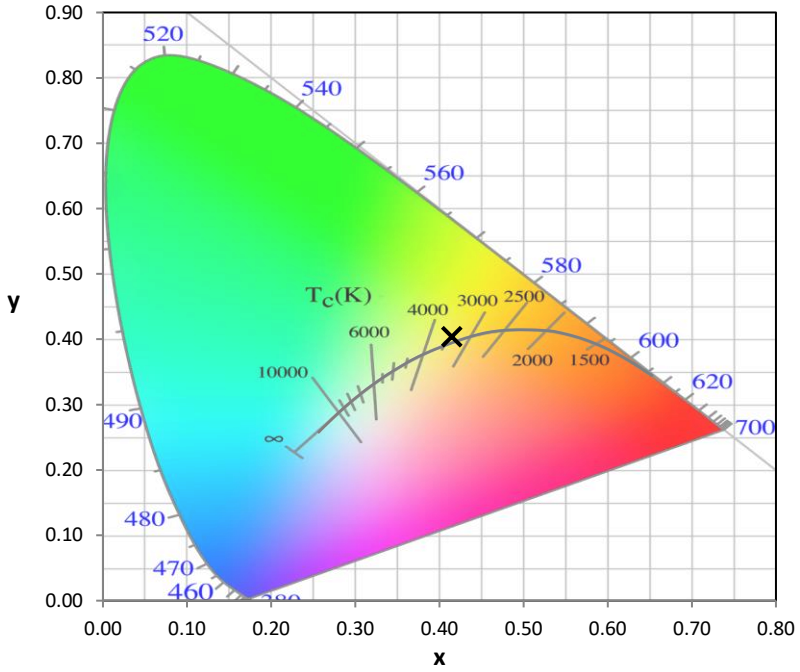
Stabilization Time:	38M
Operation Time:	1H 38M
Sphere Temperature (°C):	24.9

REPORT NUMBER: SP1-2411-284-1

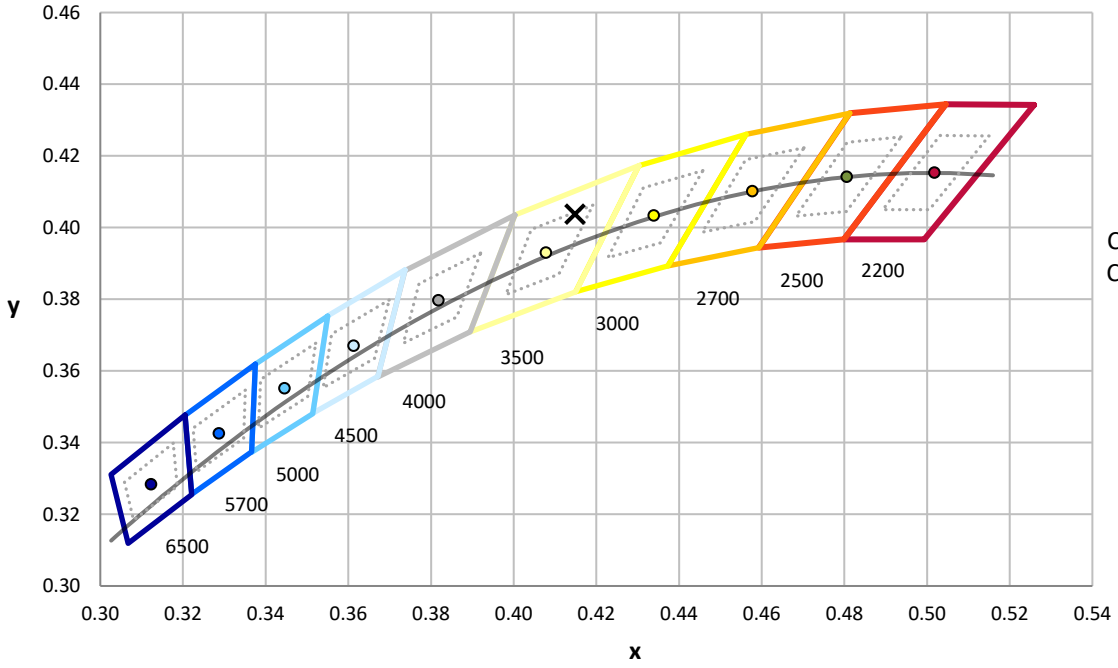
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/22/2024	10/22/2025
DC Power Source	IN0208	10/22/2024	10/22/2025
Sphere Thermometer	IN0085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

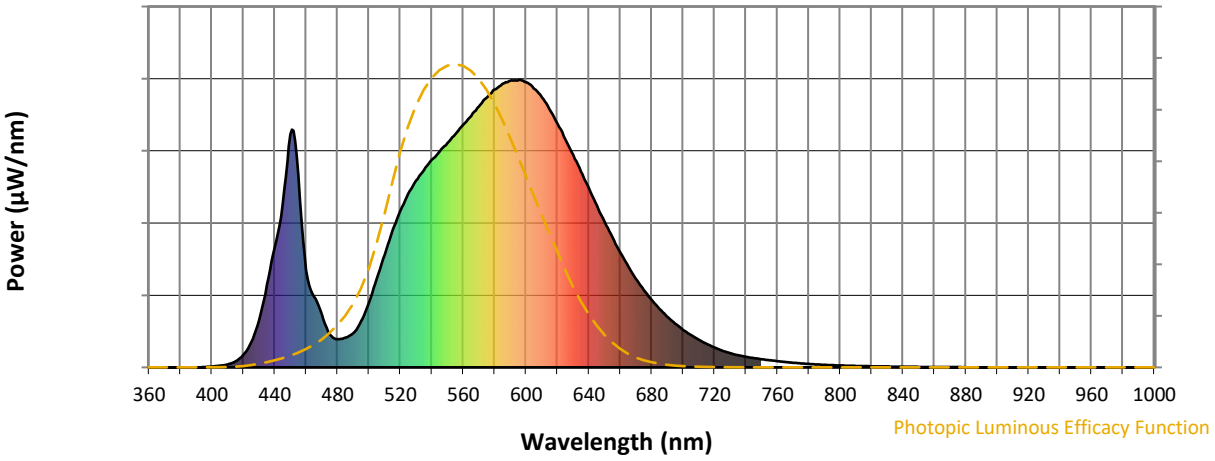


CCT = 3405K
CIE x = 0.4148
CIE y = 0.4038
Duv = 0.0036

Point lies inside the ANSI 3500K 4-step quadrangle

REPORT NUMBER: SP1-2411-284-1

Photopic Flux vs. Wavelength

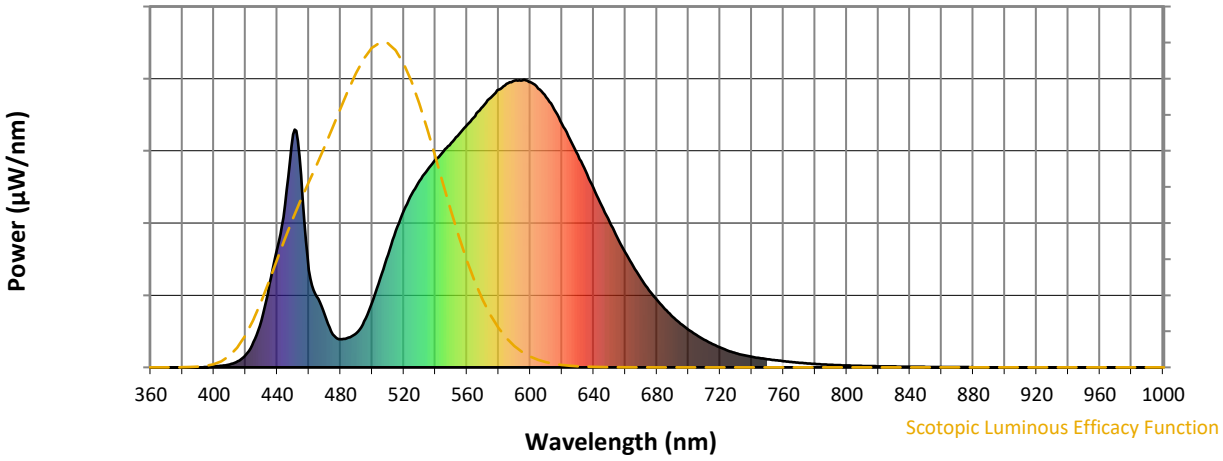


Photopic Lumens: NR

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

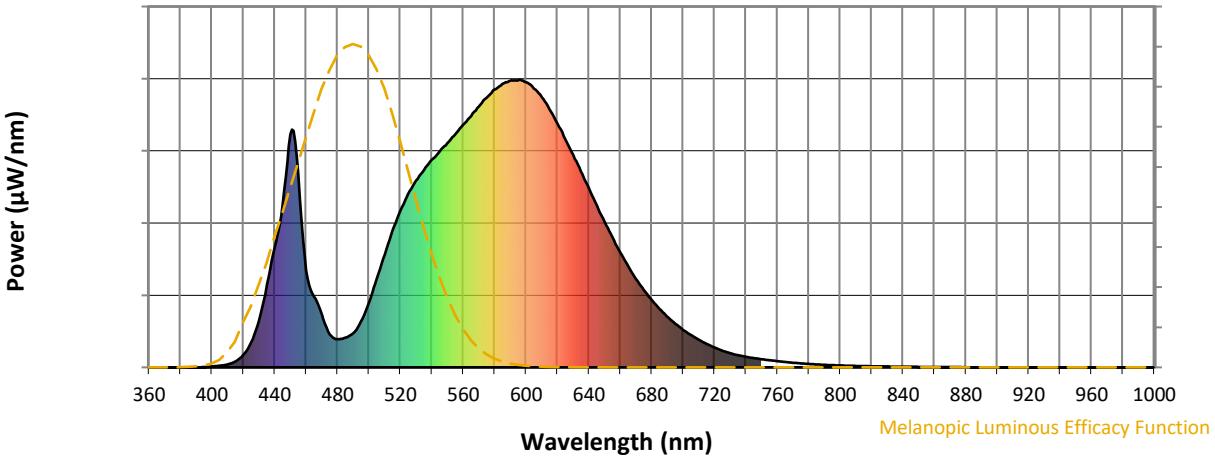


Scotopic Lumens: NR **S/P: 1.33**

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			

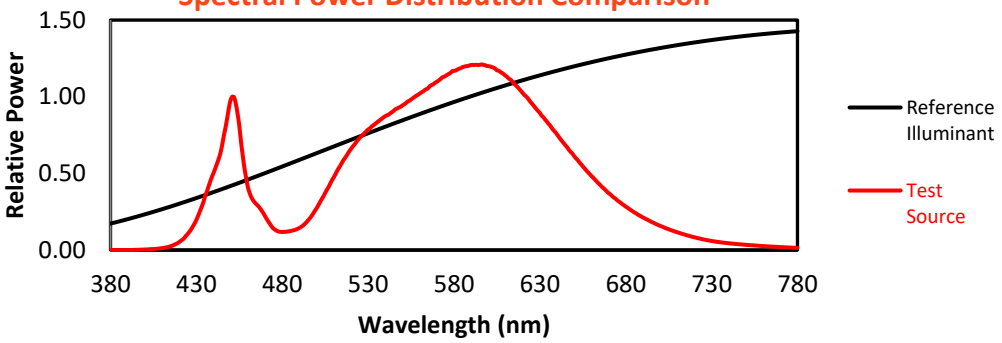
REPORT NUMBER: SP1-2411-284-1

TM-30-18

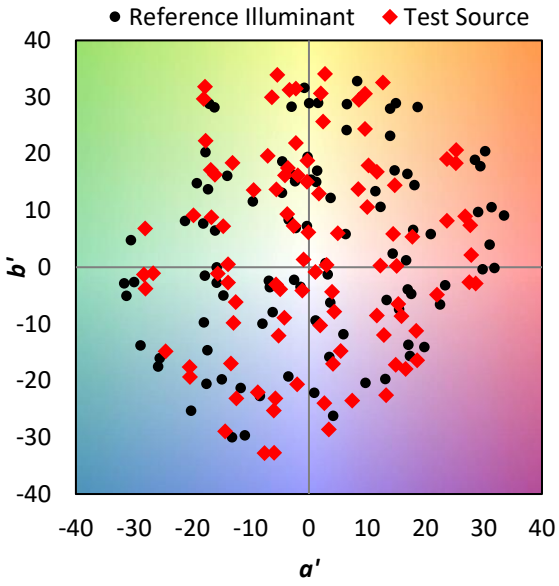
Summary

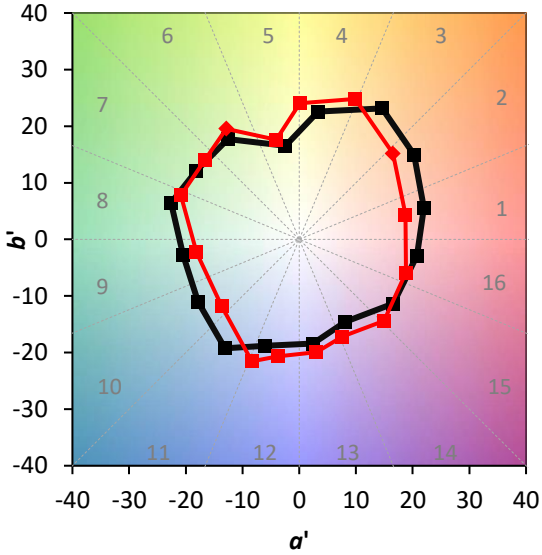
R_f = 76.6
R_g = 95.4
CIE R_a = 73.9
R_9 = -18.0

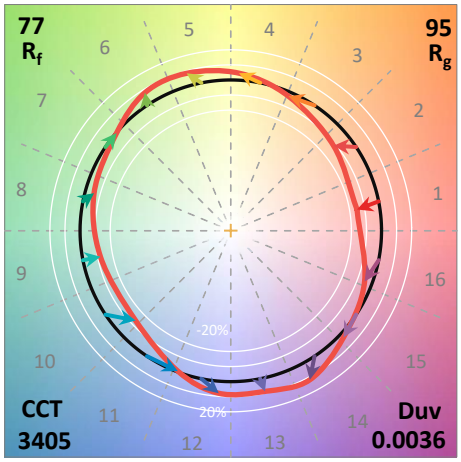
Spectral Power Distribution Comparison

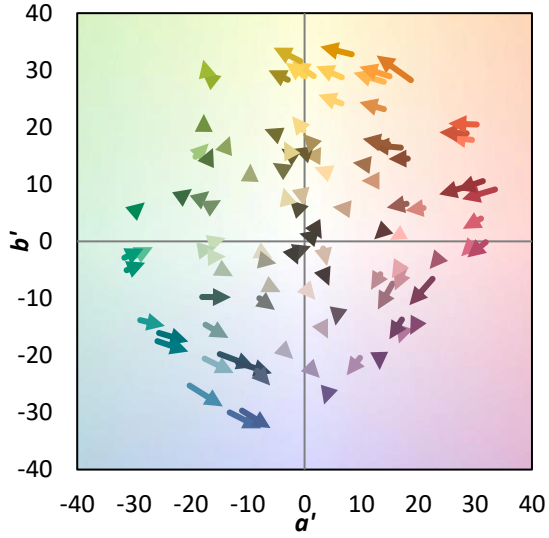


Color Vector Graphics







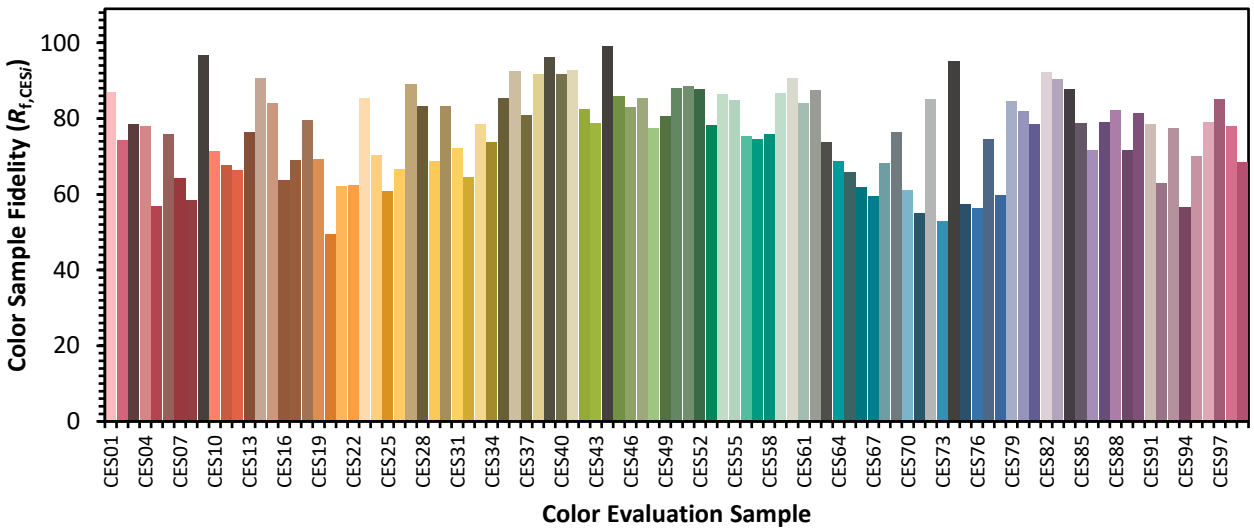


REPORT NUMBER: SP1-2411-284-1

TM-30-18

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

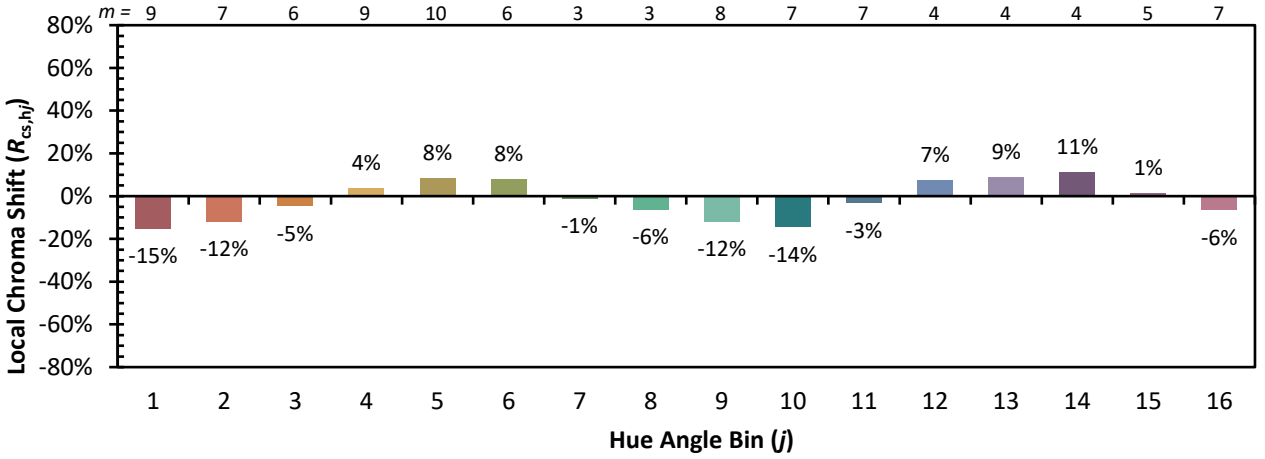
CES01 = 86	CES26 = 67	CES51 = 88	CES76 = 56
CES02 = 62	CES27 = 89	CES52 = 88	CES77 = 75
CES03 = 31	CES28 = 83	CES53 = 78	CES78 = 60
CES04 = 70	CES29 = 69	CES54 = 86	CES79 = 85
CES05 = 48	CES30 = 83	CES55 = 85	CES80 = 82
CES06 = 51	CES31 = 72	CES56 = 75	CES81 = 78
CES07 = 41	CES32 = 65	CES57 = 75	CES82 = 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
CES25 = 72	CES50 = 88	CES75 = 57	

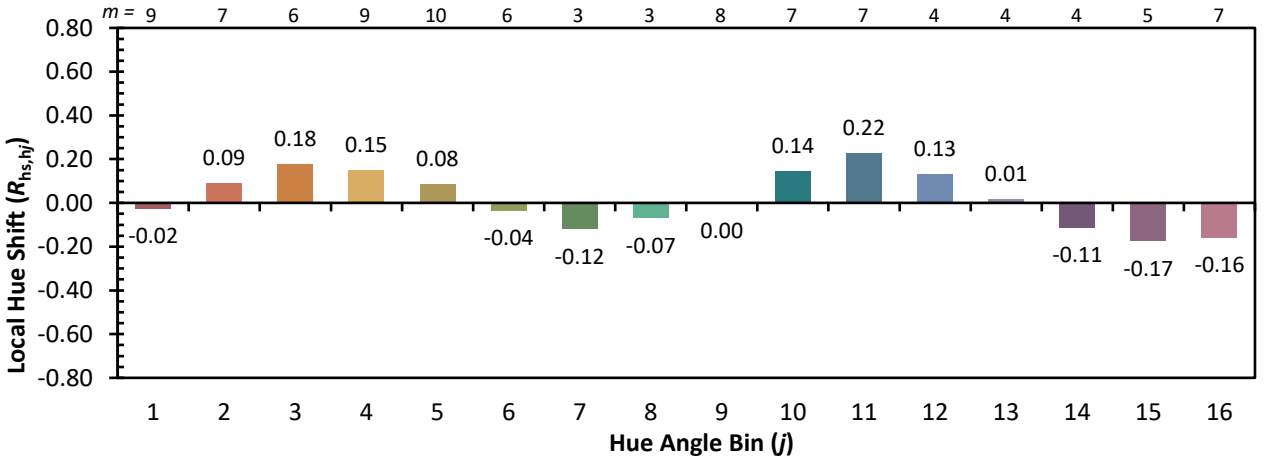


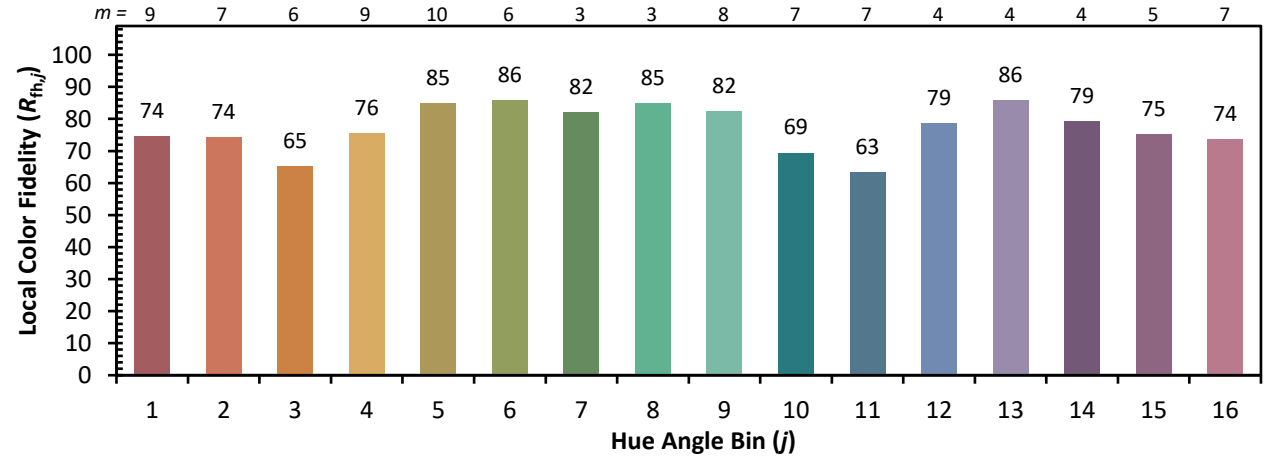
REPORT NUMBER: SP1-2411-284-1

TM-30-18

Color Rendition by Hue-Angle Bin







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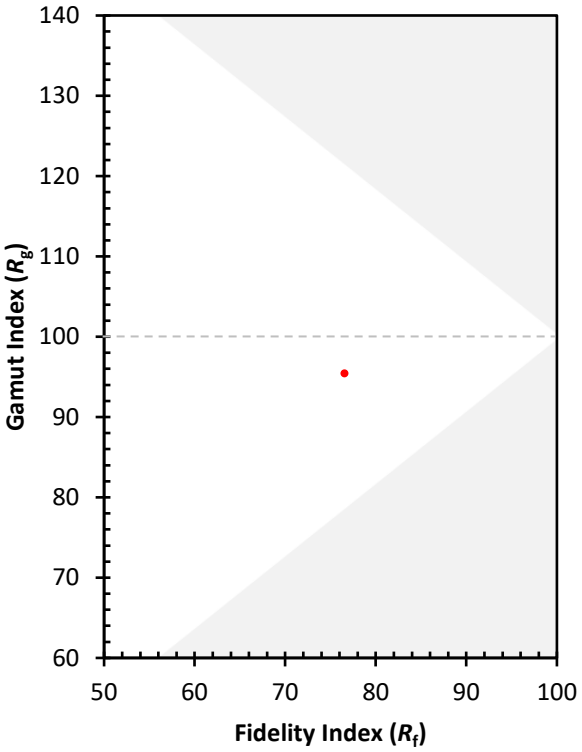
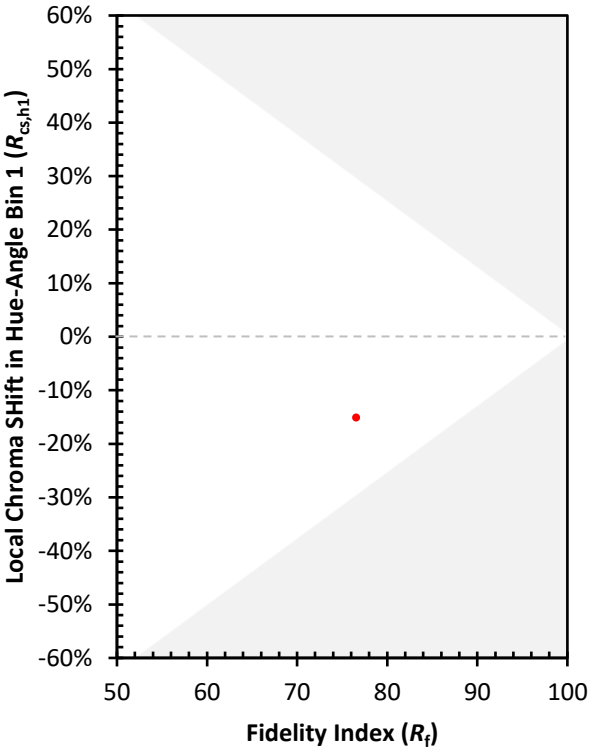
Measure Comparisons





(END OF REPORT)