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: P821153

Luminaire Tested: **TT-D3-830-24VDC-RW-HSS**

Issue Date: 12/2/2020

Report Generated By 670245763

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Peachtree City, GA 30269

Scaled Data Report

Test Information

Test Method:	LM-79-08
Report Number:	P821153
	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-D3-830-24VDC-RW-HSS
Description:	TOPTIER LED PARKING GARAGE LUMINAIRE
	3000K, 80 CRI LEDS AND RECTANGULAR DISTRIBUTION WITH HOUSE SIDE SHIELD
Light Source:	-
Ballast/Driver:	ELECTRONIC DRIVER

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	3573 lumens
Efficiency:	N/A
Efficacy:	77.7 lumens/watt
Luminous Opening:	Circular (Dia: 1.12' x H: 0')
IES Classification:	Type IV - Short
BUG Rating:	B1 - U2 - G2

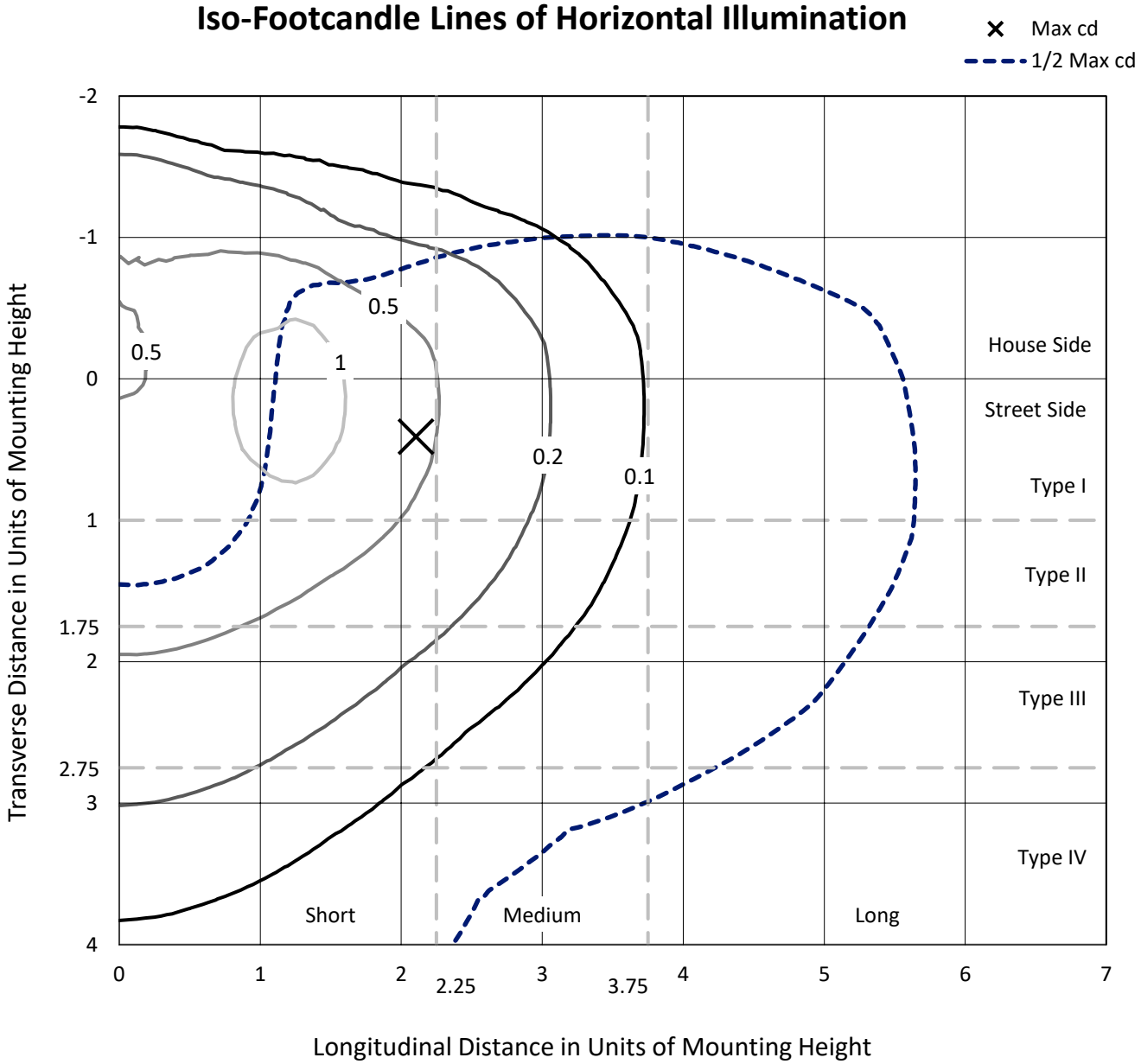
Input Watts (W):	46
Input Voltage (V):	NR
Input Current (Ain):	NR
Voltage Rise (V):	NR
Power Factor:	NR
Total Harmonic Distortion (THDi):	NR
Frequency (hertz):	60
Stabilization Time:	NR
Operation Time:	NR
Ambient Temperature (°C):	NR
Test Distance:	25 FT

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Iso-Footcandle Lines of Horizontal Illumination



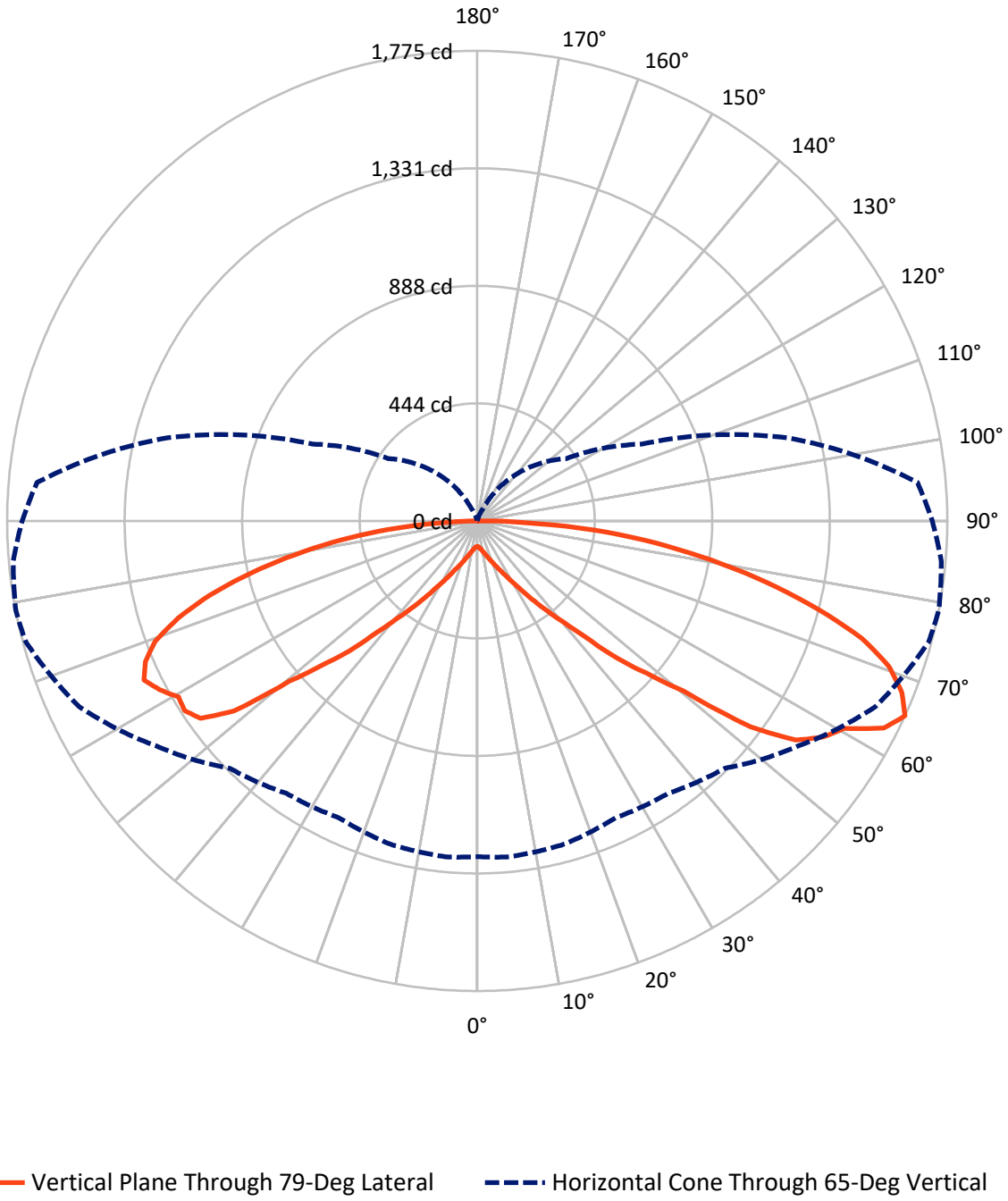
Based on 15 foot mounting height. Maximum calculated value = 1.3 fc
Type IV - Short - N/A

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Luminous Intensity Polar Plot



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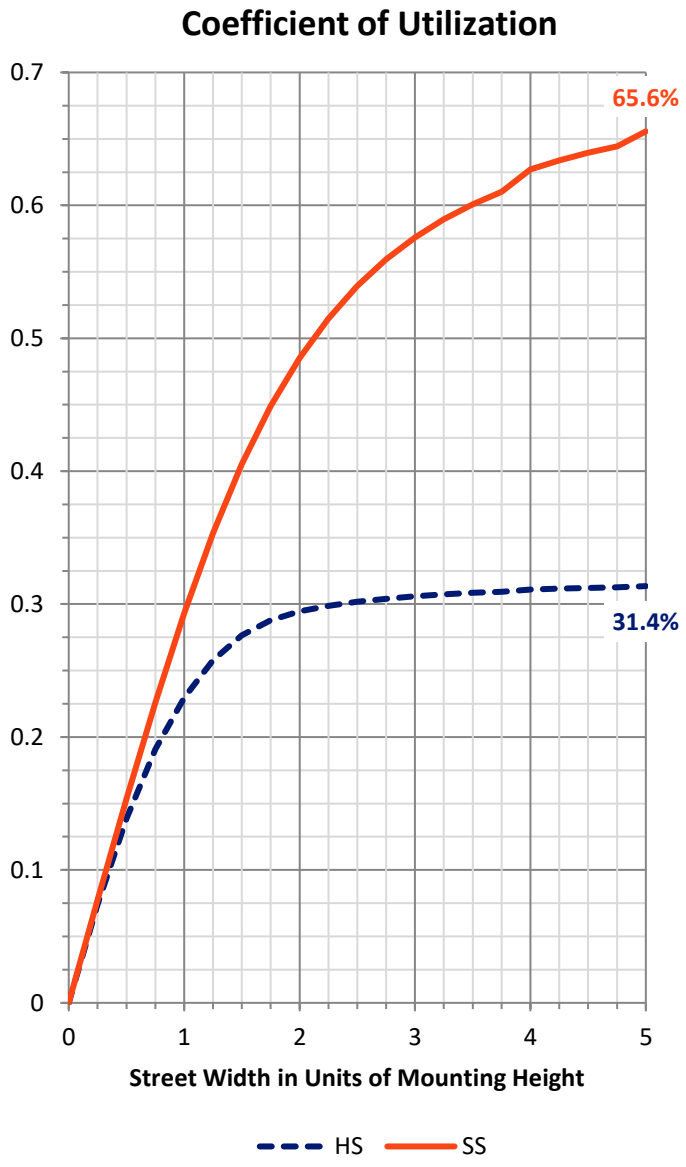
REPORT NUMBER: P821153
CATALOG NUMBER: TT-D3-830-24VDC-RW-HSS

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1128.3	1.4	1129.7
	% Fixture	31.6	0.0	31.6
Street Side	Lumens	2427.5	15.8	2443.3
	% Fixture	67.9	0.4	68.4
Total	Lumens	3555.8	17.2	3573.0
	% Fixture	99.5	0.5	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	10.2	0.3
10°-20°	38.5	1.1
20°-30°	88.8	2.5
30°-40°	190.2	5.3
40°-50°	407.4	11.4
50°-60°	769.3	21.5
60°-70°	956.1	26.8
70°-80°	818.5	22.9
80°-90°	276.9	7.7
90°-100°	12.0	0.3
100°-110°	3.5	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°	3555.8	99.5
0°-180°	3573.0	100.0



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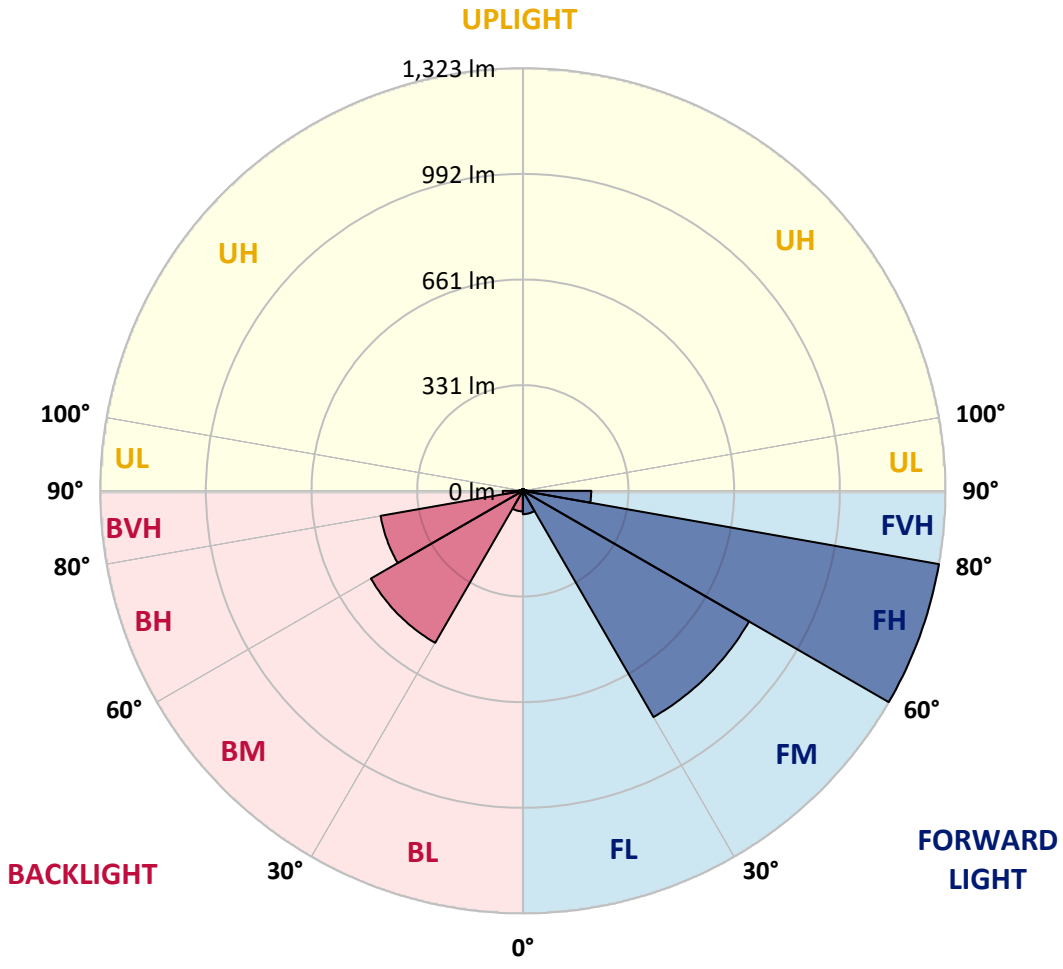
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	73.1	2.0			
FM	(30°-60°)	817.7	22.9			
FH	(60°-80°)	1322.6	37.0			G1/1800
FVH	(80°-90°)	214.2	6.0			G2/225
BL	(0°-30°)	64.4	1.8	B0/110		
BM	(30°-60°)	549.2	15.4	B1/1000		
BH	(60°-80°)	452.0	12.7	B1/500		G1/500
BVH	(80°-90°)	62.7	1.8			G1/100
UL	(90°-100°)	12.0	0.3		U2/50	
UH	(100°-180°)	5.2	0.1		U1/10	

BUG Rating: B1-U2-G2
Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	79°	85°
0°	97.0	97.0	97.0	97.0	97.0	97.0	97.0	97.0	97.0	*97.0*	97.0
2.5°	102.4	102.4	102.4	101.5	101.5	101.5	100.6	99.7	98.8	*98.8*	98.8
5°	107.7	107.7	107.7	107.7	106.8	105.9	105.1	104.2	103.3	*103.3*	102.4
7.5°	114.9	114.0	114.9	114.0	114.0	113.1	112.2	111.3	109.5	*109.5*	108.6
10°	122.0	122.0	122.0	122.0	122.0	121.1	120.2	119.3	118.4	*117.5*	116.6
12.5°	130.9	130.9	130.9	130.0	130.9	130.0	129.1	129.1	128.2	*126.4*	126.4
15°	139.8	139.8	139.8	139.8	140.7	140.7	140.7	139.8	139.8	*138.9*	138.0
17.5°	150.5	149.6	150.5	150.5	151.4	152.2	153.1	154.0	154.0	*153.1*	153.1
20°	162.0	161.1	162.0	162.0	163.8	165.6	168.3	170.1	170.9	*169.2*	169.2
22.5°	174.5	173.6	175.4	175.4	178.1	180.7	185.2	187.0	189.6	*188.7*	188.7
25°	189.6	188.7	189.6	190.5	194.1	198.5	203.9	208.3	211.0	*211.0*	211.9
27.5°	206.6	206.6	207.4	208.3	211.9	219.0	227.0	235.0	241.3	*240.4*	241.3
30°	229.7	229.7	231.5	232.4	236.8	244.8	255.5	266.2	275.1	*275.1*	276.9
32.5°	255.5	254.6	257.3	258.2	262.6	273.3	288.5	305.4	317.0	*317.0*	318.7
35°	286.7	285.8	288.5	288.5	293.8	308.9	328.5	351.7	371.3	*372.2*	374.8
37.5°	325.9	324.1	324.1	326.7	333.0	352.6	379.3	411.3	431.8	*433.6*	438.0
40°	372.2	371.3	373.0	372.2	380.2	404.2	438.0	475.4	499.5	*503.9*	509.3
42.5°	429.1	430.9	428.2	428.2	438.0	465.6	505.7	549.3	593.0	*598.3*	601.0
45°	498.6	502.1	498.6	497.7	506.6	538.6	593.8	670.4	721.2	*739.0*	744.3
47.5°	582.3	584.1	579.6	577.8	587.6	628.6	699.8	785.3	844.9	*858.3*	872.5
50°	675.8	673.1	669.5	666.9	685.6	736.3	819.1	907.2	1009.6	*1011.4*	1016.8
52.5°	771.9	763.9	764.8	763.9	789.7	844.9	955.3	1104.9	1260.7	*1292.8*	1296.3
55°	868.1	858.3	857.4	866.3	902.8	982.0	1120.9	1315.0	1441.4	*1461.0*	1458.4
57.5°	964.2	959.8	958.0	966.0	1019.4	1113.8	1270.5	1434.3	1542.0	*1540.3*	1521.6
60°	1063.9	1067.5	1061.3	1076.4	1131.6	1226.0	1339.9	1499.3	1599.0	*1591.0*	1572.3
62.5°	1166.3	1175.2	1169.0	1170.8	1206.4	1275.8	1388.0	1573.2	1711.2	*1722.8*	1701.4
65°	*1267.8*	*1274.1*	*1264.3*	*1236.7*	*1256.2*	*1321.2*	*1481.5*	*1659.6*	*1764.6*	*1775.3*	*1759.3*
67.5°	1353.3	1359.5	1325.7	1282.1	1284.7	1331.9	1472.6	1642.7	1736.1	*1729.0*	1703.2
70°	1426.3	1414.7	1359.5	1284.7	1253.6	1275.8	1408.5	1559.0	1654.2	*1650.7*	1620.4
72.5°	1450.3	1435.2	1341.7	1226.0	1164.5	1172.6	1301.7	1436.1	1513.6	*1519.8*	1483.3
75°	1412.1	1386.2	1258.0	1112.9	1033.7	1039.0	1149.4	1273.2	1335.5	*1328.4*	1299.9
77.5°	1274.1	1248.2	1109.3	954.4	877.0	885.0	972.2	1069.3	1120.9	*1118.2*	1098.7
80°	1057.7	1034.6	912.6	768.4	698.0	702.5	769.2	845.8	885.9	*894.8*	884.1
82.5°	781.7	765.7	679.3	562.7	505.7	504.8	555.6	614.3	653.5	*672.2*	665.1
85°	483.4	475.4	427.4	351.7	311.6	310.7	341.0	384.6	420.2	*445.2*	429.1
87.5°	192.3	189.6	175.4	141.6	123.8	117.5	110.4	138.0	140.7	*166.5*	165.6
90°	47.2	46.3	45.4	42.7	38.3	32.9	26.7	19.6	12.5	*9.8*	5.3
92.5°	41.8	41.8	41.0	38.3	34.7	29.4	24.0	17.8	11.6	*8.9*	4.5
95°	33.8	33.8	32.9	31.2	27.6	24.0	18.7	14.2	8.9	*7.1*	3.6
97.5°	25.8	24.9	24.9	23.1	21.4	17.8	14.2	10.7	7.1	*5.3*	2.7
100°	18.7	18.7	17.8	16.9	15.1	13.4	10.7	8.0	4.5	*3.6*	1.8
102.5°	13.4	12.5	12.5	12.5	10.7	8.9	7.1	5.3	3.6	*2.7*	0.9
105°	8.9	8.0	8.0	8.0	7.1	6.2	4.5	3.6	1.8	*1.8*	0.9
107.5°	5.3	5.3	5.3	5.3	4.5	3.6	2.7	1.8	0.9	*0.9*	0.9
110°	2.7	2.7	2.7	3.6	2.7	2.7	1.8	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°	1.8	1.8	1.8	1.8	1.8	1.8	0.9	0.9	0.9	*0.9*	0.9
115°	0.9	0.9	0.9	1.8	1.8	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°	97.0	97.0	97.0	97.0	97.0	97.0	97.0	97.0	97.0	97.0	97.0
2.5°	97.9	97.9	97.9	97.0	97.0	97.0	96.2	96.2	95.3	95.3	95.3
5°	101.5	101.5	100.6	100.6	99.7	98.8	98.8	97.9	97.9	97.0	97.0
7.5°	107.7	107.7	106.8	105.9	104.2	103.3	102.4	101.5	101.5	100.6	100.6
10°	115.7	115.7	114.0	112.2	110.4	108.6	107.7	105.9	105.1	105.1	105.1
12.5°	125.5	124.6	122.9	120.2	118.4	115.7	114.0	112.2	110.4	110.4	110.4
15°	137.1	137.1	133.5	130.9	127.3	123.8	121.1	118.4	116.6	115.7	115.7
17.5°	151.4	151.4	146.9	142.5	138.0	133.5	130.0	126.4	124.6	123.8	123.8
20°	167.4	167.4	162.9	157.6	151.4	145.1	139.8	135.3	132.7	131.8	131.8
22.5°	187.0	187.0	180.7	173.6	165.6	156.7	149.6	144.2	141.6	139.8	139.8
25°	209.2	207.4	201.2	192.3	180.7	170.1	160.3	154.9	151.4	148.7	149.6
27.5°	239.5	236.8	228.8	213.7	199.4	185.2	173.6	166.5	162.0	160.3	161.1
30°	274.2	271.5	260.0	243.1	221.7	203.0	188.7	180.7	176.3	173.6	174.5
32.5°	316.1	312.5	298.3	275.1	250.2	223.5	205.7	195.9	191.4	188.7	187.9
35°	371.3	366.8	349.0	317.0	282.2	250.2	225.3	212.8	208.3	205.7	206.6
37.5°	433.6	427.4	403.3	364.1	320.5	279.6	251.1	235.0	229.7	225.3	225.3
40°	504.8	497.7	466.5	414.9	362.4	311.6	275.1	257.3	251.1	251.1	251.1
42.5°	593.8	586.7	551.1	475.4	406.0	346.3	302.7	282.2	276.0	277.8	277.8
45°	731.8	722.1	665.1	565.4	463.0	381.9	331.2	308.1	303.6	308.1	308.1
47.5°	858.3	845.8	762.1	649.0	519.1	417.6	359.7	333.0	331.2	341.0	341.0
50°	999.8	983.8	895.7	716.7	564.5	456.7	385.5	353.5	354.3	368.6	373.0
52.5°	1274.1	1257.1	1104.9	839.6	613.4	471.0	396.2	357.9	357.9	373.9	380.2
55°	1437.0	1402.3	1203.7	919.7	633.9	487.9	391.7	340.1	338.3	356.1	361.5
57.5°	1490.4	1454.8	1224.2	896.6	620.6	466.5	365.9	292.0	288.5	311.6	309.8
60°	1534.0	1486.8	1191.3	819.1	544.9	421.1	316.1	217.2	202.1	222.6	221.7
62.5°	1656.9	1606.1	1193.0	728.3	455.8	351.7	237.7	122.0	90.8	106.8	99.7
65°	*1718.3*	*1668.5*	*1211.7*	*685.6*	*410.4*	*291.1*	*170.1*	*49.9*	*3.6*	*3.6*	*1.8*
67.5°	1665.8	1621.3	1187.7	674.9	404.2	289.4	172.7	49.0	0.0	0.0	0.0
70°	1589.2	1546.5	1132.5	637.5	383.7	278.7	169.2	49.0	0.0	0.0	0.0
72.5°	1454.8	1411.2	1037.2	584.1	352.6	255.5	156.7	46.3	0.0	0.0	0.0
75°	1277.6	1244.7	916.1	514.6	310.7	225.3	138.9	41.0	0.0	0.0	0.0
77.5°	1081.7	1042.6	768.4	428.2	260.0	187.0	117.5	33.8	0.0	0.0	0.0
80°	868.1	839.6	605.4	335.7	201.2	146.0	91.7	25.8	0.0	0.0	0.0
82.5°	645.5	621.4	447.8	240.4	143.3	101.5	63.2	16.9	0.0	0.0	0.0
85°	423.8	417.6	287.6	146.0	85.5	56.1	33.8	8.0	0.0	0.0	0.0
87.5°	153.1	158.5	105.1	41.8	23.1	9.8	4.5	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: P821153
CATALOG NUMBER: TT-D3-830-24VDC-RW-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

Streetworks

Report Number: SP1-2407-176-7

Test Date: 09/27/2024

Luminaire Tested: MEM2-HTN-VA-30-830-U-WQ

Data in this report applies to families of products including MEM2-HTN-VA-30-830-U-WQ

Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

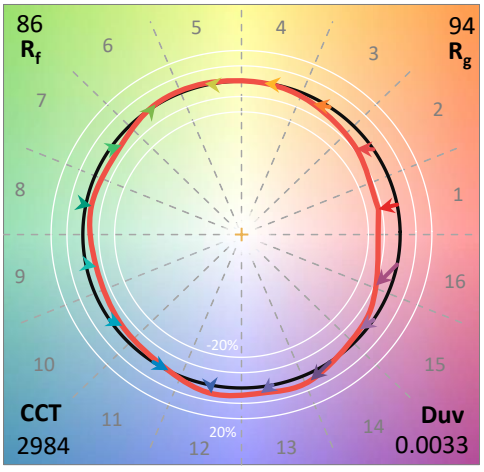
Test Information

Test Method:	LM-79-2019
Report Number:	SP1-2407-176-7
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-30-830-U-WQ**
Description:	EPIC MODERN VISUAL COMFORT 30W WAVESTREAM WIDE

Spectral Parameters

CCT (K):	2984	CRI (Ra):	81.8		
CIE u':	0.2500	R1:	79.4	R9:	-1.1
CIE v':	0.5264	R2:	89.9	R10:	78.4
Duv:	0.0033	R3:	96.6	R11:	80.8
CIE x:	0.4431	R4:	80.6	R12:	72.8
CIE y:	0.4147	R5:	80.1	R13:	81.7
CIE z:	0.1422	R6:	88.9	R14:	98.5
Peak Wavelength (nm):	601	R7:	82.6	R15:	70.2
Dominant Wavelength (nm):	581	R8:	56.0		
Purity:	57.4798				

Rf:	85.8
Rg:	94.1



Test Conditions

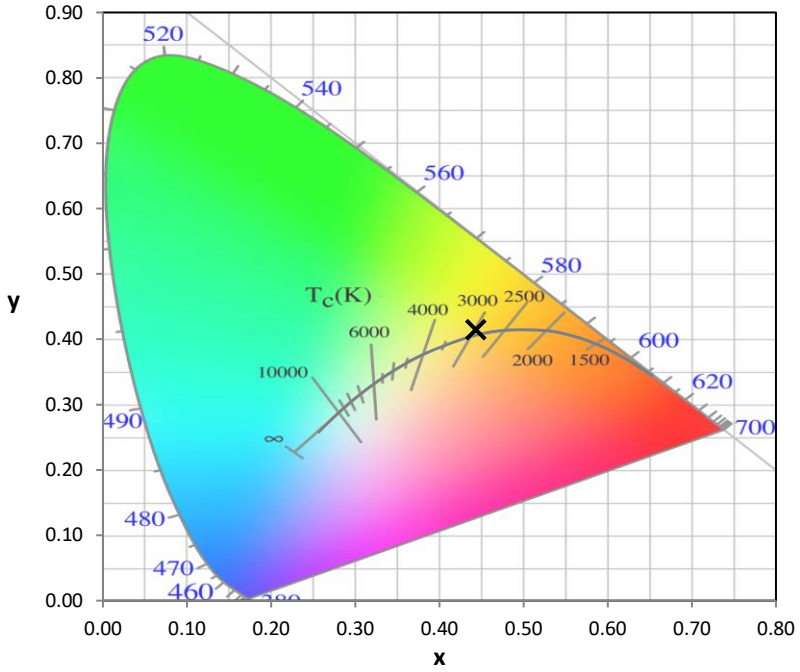
Stabilization Time:	29M
Operation Time:	1H 29M
Sphere Temperature (°C):	25.2

REPORT NUMBER: SP1-2407-176-7

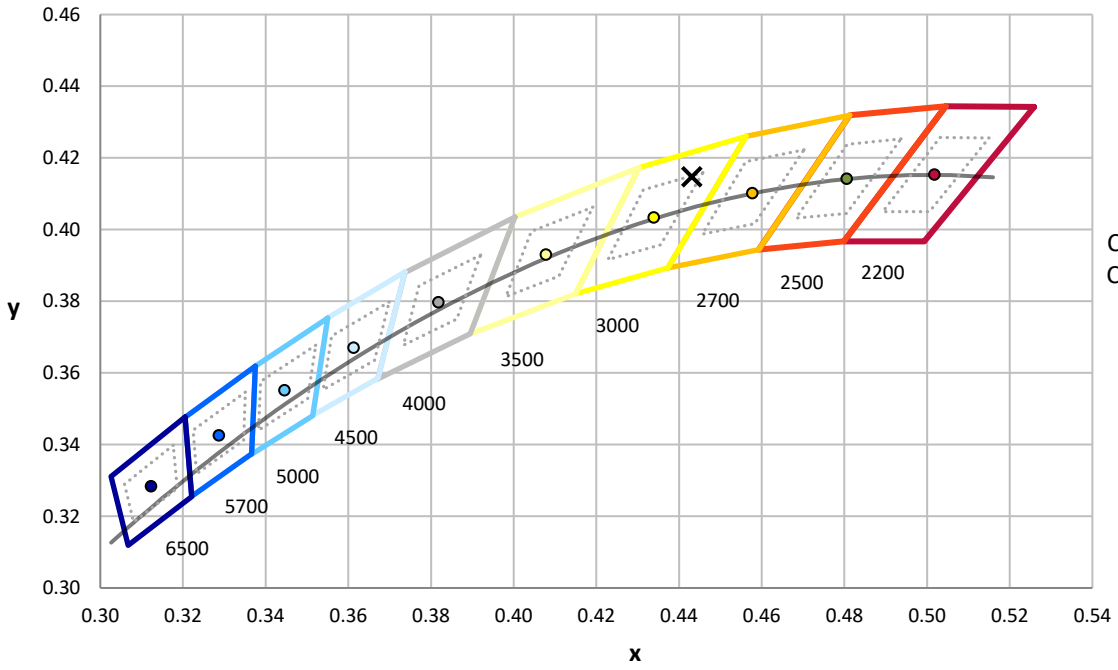
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

REPORT NUMBER: SP1-2407-176-7

CIE 1931 Chromaticity Diagram



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

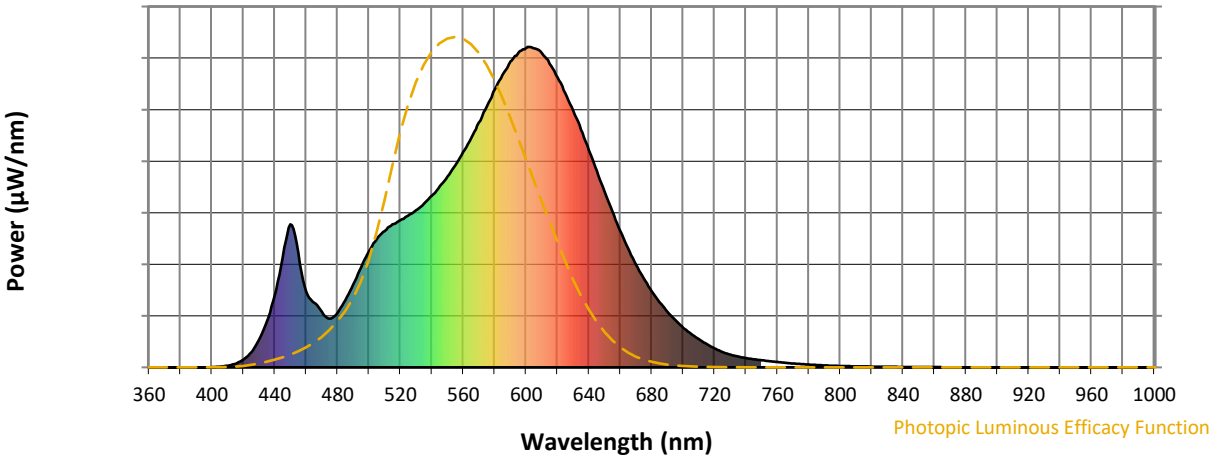


CCT = 2984K
CIE x = 0.4431
CIE y = 0.4147
Duv = 0.0033

Point lies inside the ANSI 3000K 4-step quadrangle

REPORT NUMBER: SP1-2407-176-7

Photopic Flux vs. Wavelength

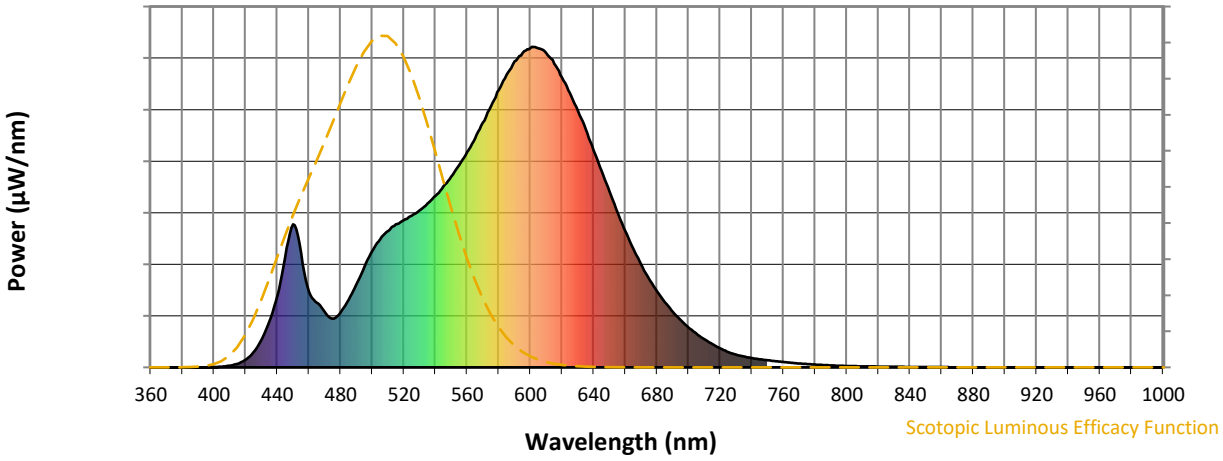


Photopic Lumens: NR

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	260	NR	620	905	NR	750	22	NR	880	0	NR
365	0	NR	495	312	NR	625	856	NR	755	19	NR	885	0	NR
370	0	NR	500	362	NR	630	801	NR	760	17	NR	890	0	NR
375	0	NR	505	399	NR	635	742	NR	765	14	NR	895	0	NR
380	0	NR	510	425	NR	640	677	NR	770	12	NR	900	0	NR
385	0	NR	515	446	NR	645	613	NR	775	10	NR	905	0	NR
390	0	NR	520	459	NR	650	549	NR	780	9	NR	910	0	NR
395	0	NR	525	473	NR	655	485	NR	785	7	NR	915	0	NR
400	1	NR	530	490	NR	660	425	NR	790	6	NR	920	0	NR
405	2	NR	535	511	NR	665	371	NR	795	5	NR	925	0	NR
410	5	NR	540	535	NR	670	321	NR	800	4	NR	930	0	NR
415	11	NR	545	565	NR	675	276	NR	805	4	NR	935	0	NR
420	24	NR	550	595	NR	680	238	NR	810	3	NR	940	0	NR
425	47	NR	555	631	NR	685	203	NR	815	3	NR	945	0	NR
430	86	NR	560	672	NR	690	174	NR	820	2	NR	950	0	NR
435	144	NR	565	715	NR	695	148	NR	825	2	NR	955	0	NR
440	224	NR	570	763	NR	700	124	NR	830	2	NR	960	0	NR
445	342	NR	575	814	NR	705	105	NR	835	2	NR	965	0	NR
450	446	NR	580	866	NR	710	88	NR	840	1	NR	970	0	NR
455	357	NR	585	912	NR	715	73	NR	845	1	NR	975	0	NR
460	237	NR	590	954	NR	720	59	NR	850	1	NR	980	0	NR
465	202	NR	595	981	NR	725	48	NR	855	1	NR	985	0	NR
470	172	NR	600	996	NR	730	40	NR	860	1	NR	990	0	NR
475	152	NR	605	996	NR	735	34	NR	865	1	NR	995	0	NR
480	171	NR	610	980	NR	740	29	NR	870	0	NR	1000	0	NR
485	210	NR	615	947	NR	745	25	NR	875	0	NR			

REPORT NUMBER: SP1-2407-176-7

Scotopic Flux vs. Wavelength

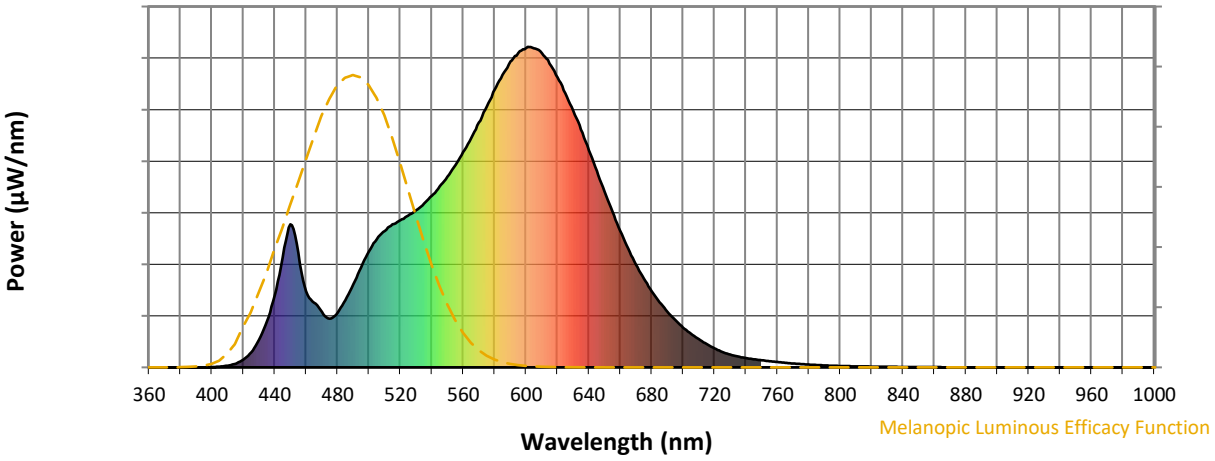


Scotopic Lumens: NR **S/P: 1.32**

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	260	NR	620	905	NR	750	22	NR	880	0	NR
365	0	NR	495	312	NR	625	856	NR	755	19	NR	885	0	NR
370	0	NR	500	362	NR	630	801	NR	760	17	NR	890	0	NR
375	0	NR	505	399	NR	635	742	NR	765	14	NR	895	0	NR
380	0	NR	510	425	NR	640	677	NR	770	12	NR	900	0	NR
385	0	NR	515	446	NR	645	613	NR	775	10	NR	905	0	NR
390	0	NR	520	459	NR	650	549	NR	780	9	NR	910	0	NR
395	0	NR	525	473	NR	655	485	NR	785	7	NR	915	0	NR
400	1	NR	530	490	NR	660	425	NR	790	6	NR	920	0	NR
405	2	NR	535	511	NR	665	371	NR	795	5	NR	925	0	NR
410	5	NR	540	535	NR	670	321	NR	800	4	NR	930	0	NR
415	11	NR	545	565	NR	675	276	NR	805	4	NR	935	0	NR
420	24	NR	550	595	NR	680	238	NR	810	3	NR	940	0	NR
425	47	NR	555	631	NR	685	203	NR	815	3	NR	945	0	NR
430	86	NR	560	672	NR	690	174	NR	820	2	NR	950	0	NR
435	144	NR	565	715	NR	695	148	NR	825	2	NR	955	0	NR
440	224	NR	570	763	NR	700	124	NR	830	2	NR	960	0	NR
445	342	NR	575	814	NR	705	105	NR	835	2	NR	965	0	NR
450	446	NR	580	866	NR	710	88	NR	840	1	NR	970	0	NR
455	357	NR	585	912	NR	715	73	NR	845	1	NR	975	0	NR
460	237	NR	590	954	NR	720	59	NR	850	1	NR	980	0	NR
465	202	NR	595	981	NR	725	48	NR	855	1	NR	985	0	NR
470	172	NR	600	996	NR	730	40	NR	860	1	NR	990	0	NR
475	152	NR	605	996	NR	735	34	NR	865	1	NR	995	0	NR
480	171	NR	610	980	NR	740	29	NR	870	0	NR	1000	0	NR
485	210	NR	615	947	NR	745	25	NR	875	0	NR			

REPORT NUMBER: SP1-2407-176-7

Melanopic Flux vs. Wavelength



Melanopic Lumens: NR **M/P: 2.51**

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	260	NR	620	905	NR	750	22	NR	880	0	NR
365	0	NR	495	312	NR	625	856	NR	755	19	NR	885	0	NR
370	0	NR	500	362	NR	630	801	NR	760	17	NR	890	0	NR
375	0	NR	505	399	NR	635	742	NR	765	14	NR	895	0	NR
380	0	NR	510	425	NR	640	677	NR	770	12	NR	900	0	NR
385	0	NR	515	446	NR	645	613	NR	775	10	NR	905	0	NR
390	0	NR	520	459	NR	650	549	NR	780	9	NR	910	0	NR
395	0	NR	525	473	NR	655	485	NR	785	7	NR	915	0	NR
400	1	NR	530	490	NR	660	425	NR	790	6	NR	920	0	NR
405	2	NR	535	511	NR	665	371	NR	795	5	NR	925	0	NR
410	5	NR	540	535	NR	670	321	NR	800	4	NR	930	0	NR
415	11	NR	545	565	NR	675	276	NR	805	4	NR	935	0	NR
420	24	NR	550	595	NR	680	238	NR	810	3	NR	940	0	NR
425	47	NR	555	631	NR	685	203	NR	815	3	NR	945	0	NR
430	86	NR	560	672	NR	690	174	NR	820	2	NR	950	0	NR
435	144	NR	565	715	NR	695	148	NR	825	2	NR	955	0	NR
440	224	NR	570	763	NR	700	124	NR	830	2	NR	960	0	NR
445	342	NR	575	814	NR	705	105	NR	835	2	NR	965	0	NR
450	446	NR	580	866	NR	710	88	NR	840	1	NR	970	0	NR
455	357	NR	585	912	NR	715	73	NR	845	1	NR	975	0	NR
460	237	NR	590	954	NR	720	59	NR	850	1	NR	980	0	NR
465	202	NR	595	981	NR	725	48	NR	855	1	NR	985	0	NR
470	172	NR	600	996	NR	730	40	NR	860	1	NR	990	0	NR
475	152	NR	605	996	NR	735	34	NR	865	1	NR	995	0	NR
480	171	NR	610	980	NR	740	29	NR	870	0	NR	1000	0	NR
485	210	NR	615	947	NR	745	25	NR	875	0	NR			

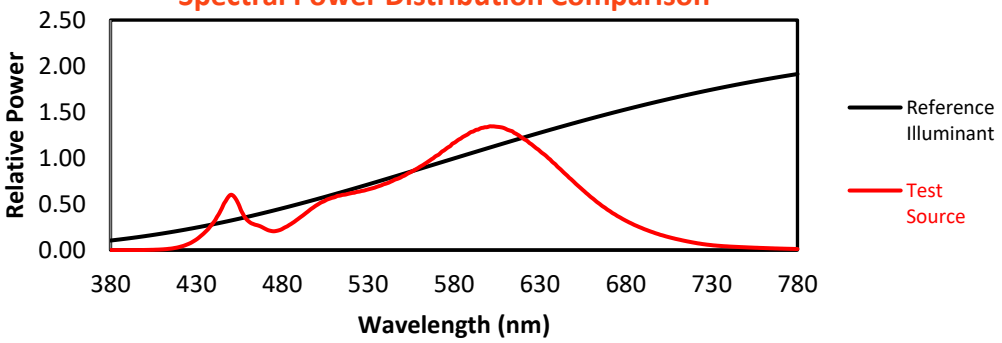
REPORT NUMBER: SP1-2407-176-7

TM-30-18

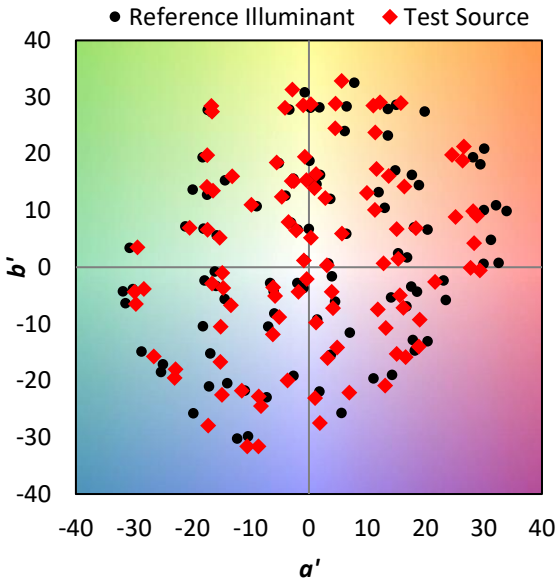
Summary

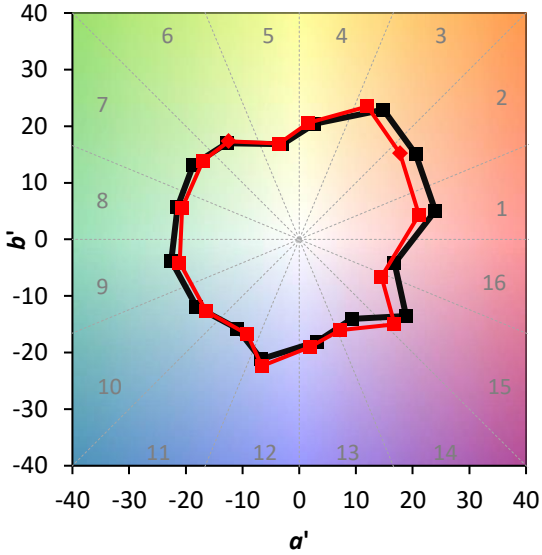
R_f = 85.8
R_g = 94.1
CIE R_a = 81.8
R_9 = -1.1

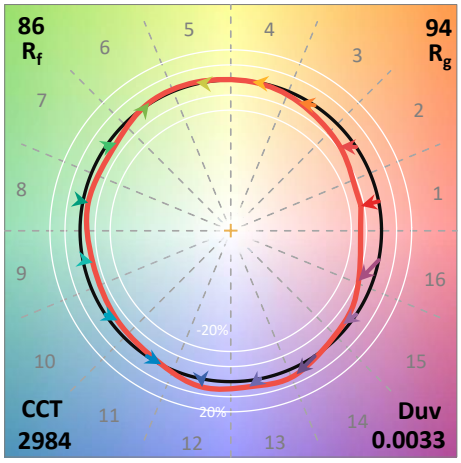
Spectral Power Distribution Comparison

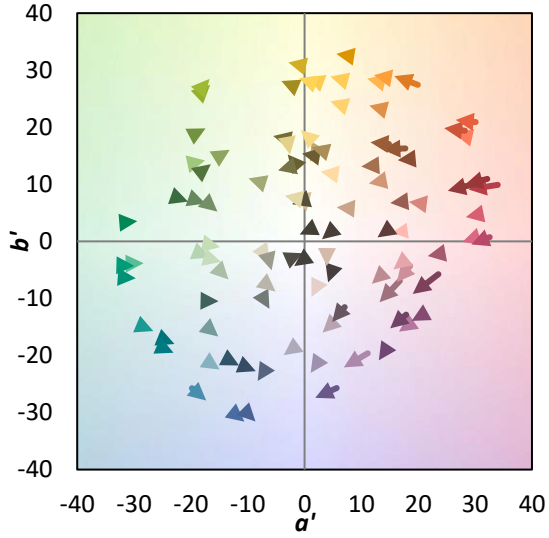


Color Vector Graphics







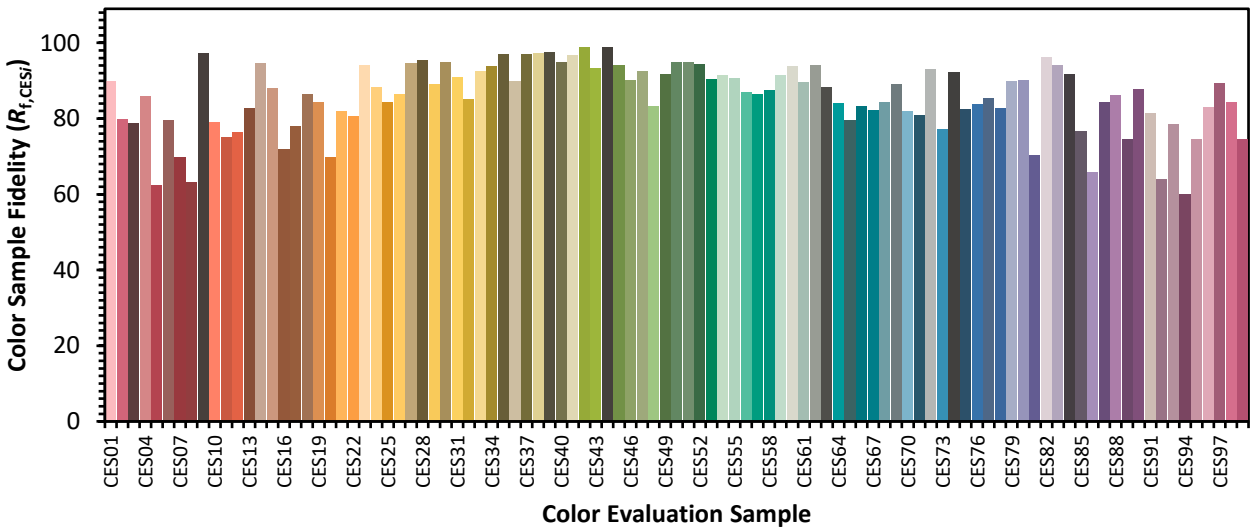


REPORT NUMBER: SP1-2407-176-7

TM-30-18

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

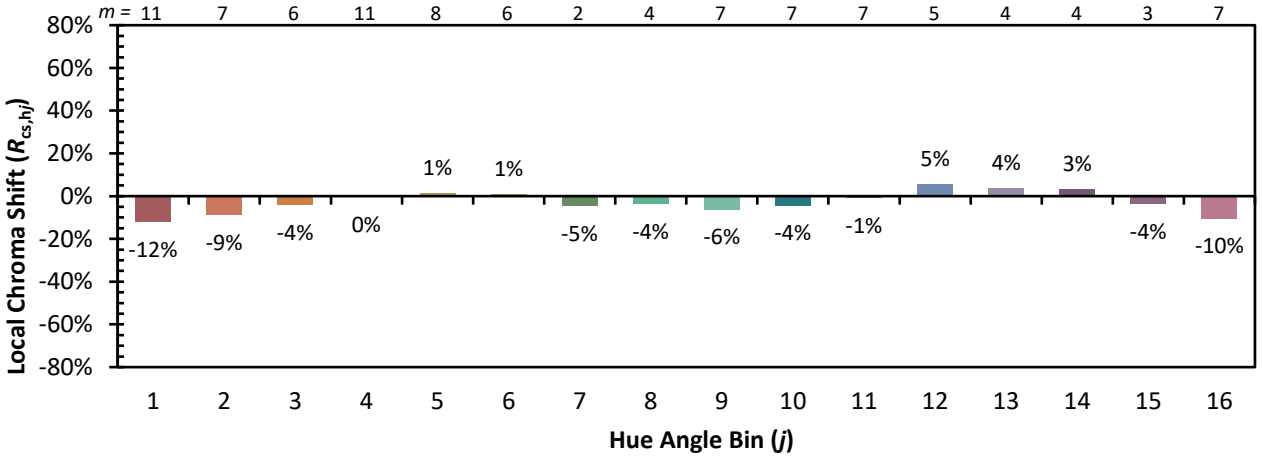
CES01 = 86	CES26 = 86	CES51 = 95	CES76 = 84
CES02 = 63	CES27 = 95	CES52 = 94	CES77 = 86
CES03 = 31	CES28 = 95	CES53 = 90	CES78 = 83
CES04 = 70	CES29 = 89	CES54 = 91	CES79 = 90
CES05 = 50	CES30 = 95	CES55 = 91	CES80 = 90
CES06 = 51	CES31 = 91	CES56 = 87	CES81 = 70
CES07 = 42	CES32 = 85	CES57 = 86	CES82 = 96
CES08 = 41	CES33 = 93	CES58 = 87	CES83 = 94
CES09 = 29	CES34 = 94	CES59 = 92	CES84 = 92
CES10 = 76	CES35 = 97	CES60 = 94	CES85 = 77
CES11 = 59	CES36 = 90	CES61 = 90	CES86 = 66
CES12 = 65	CES37 = 97	CES62 = 94	CES87 = 84
CES13 = 43	CES38 = 97	CES63 = 88	CES88 = 86
CES14 = 74	CES39 = 98	CES64 = 84	CES89 = 75
CES15 = 72	CES40 = 95	CES65 = 80	CES90 = 88
CES16 = 47	CES41 = 97	CES66 = 83	CES91 = 81
CES17 = 50	CES42 = 99	CES67 = 82	CES92 = 64
CES18 = 56	CES43 = 93	CES68 = 84	CES93 = 79
CES19 = 72	CES44 = 99	CES69 = 89	CES94 = 60
CES20 = 67	CES45 = 94	CES70 = 82	CES95 = 74
CES21 = 87	CES46 = 90	CES71 = 81	CES96 = 83
CES22 = 79	CES47 = 93	CES72 = 93	CES97 = 89
CES23 = 92	CES48 = 83	CES73 = 77	CES98 = 84
CES24 = 91	CES49 = 92	CES74 = 92	CES99 = 75
CES25 = 72	CES50 = 95	CES75 = 83	

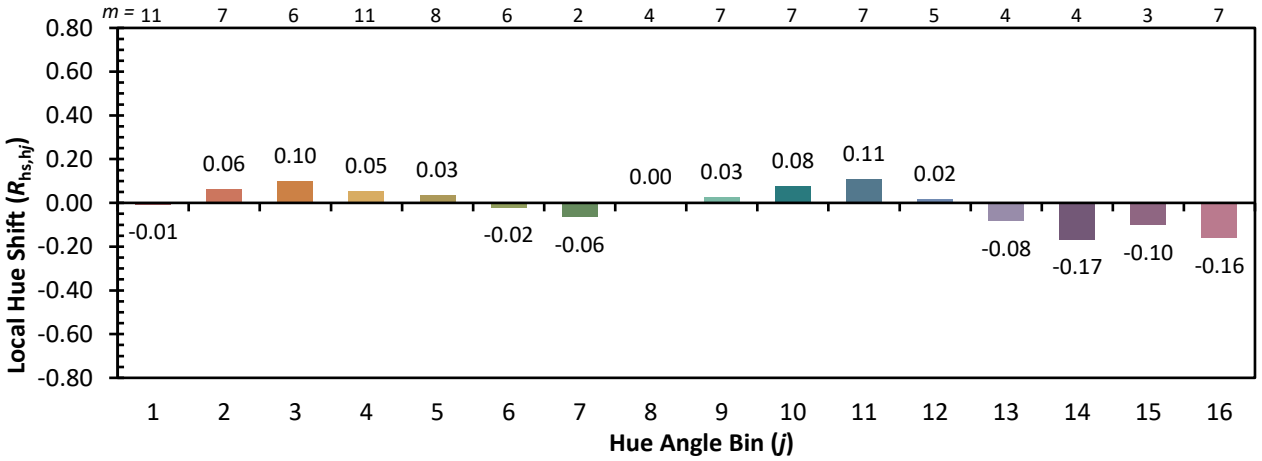


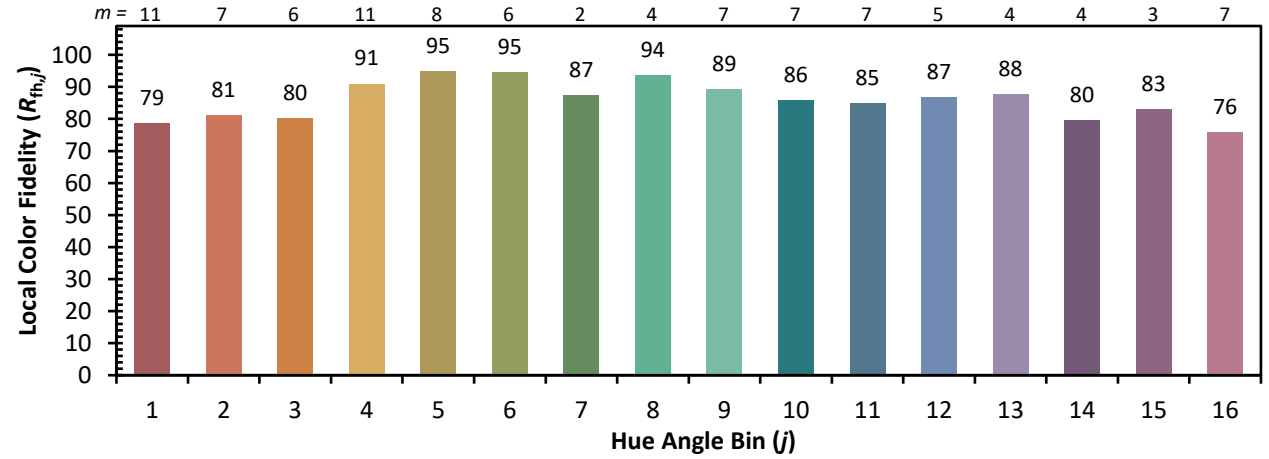
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Color Rendition by Hue-Angle Bin



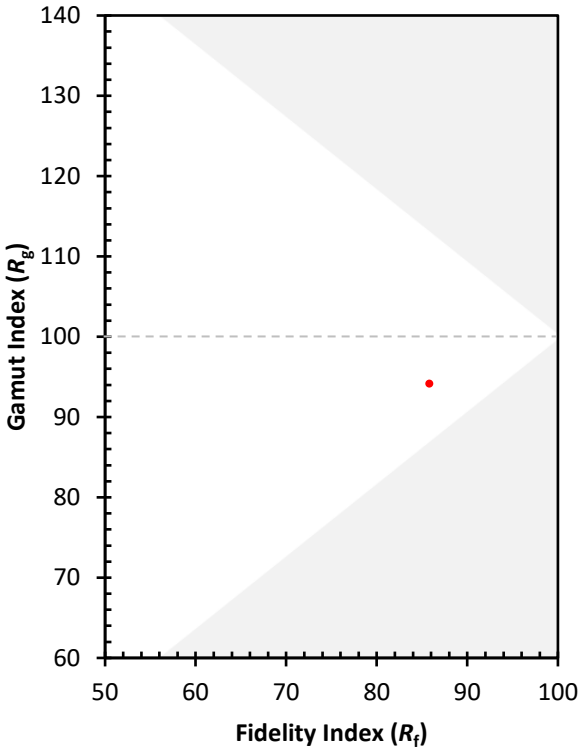


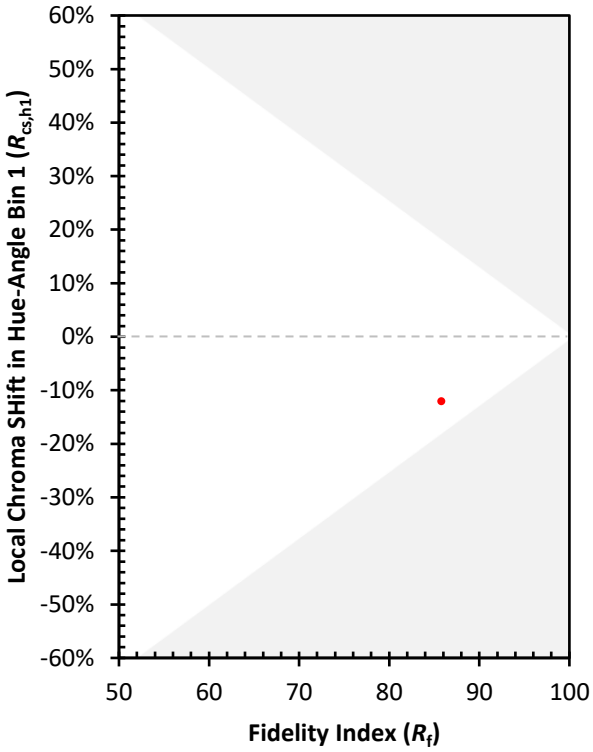


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Measure Comparisons





(END OF REPORT)