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: P821295

Luminaire Tested: **TT-D3-740-24VDC-DL-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:	P821295
	TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2010-017-4)
Test Lab:	INNOVATION CENTER
Issue Date:	12/2/2020
Manufacturer:	COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line:	McGRAW-EDISON
Catalog Number:	TT-D3-740-24VDC-DL-HSS
Description:	TOPTIER LED PARKING GARAGE LUMINAIRE
	4000K, 70 CRI LEDS AND DRIVE LANE DISTRIBUTION WITH HOUSE SIDE SHIELD
Light Source:	-
Ballast/Driver:	ELECTRONIC DRIVER

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	4715 lumens
Efficiency:	N/A
Efficacy:	102.5 lumens/watt
Luminous Opening:	Circular (Dia: 1.12' x H: 0')
IES Classification:	Type IV - Short
BUG Rating:	B1 - U1 - G3

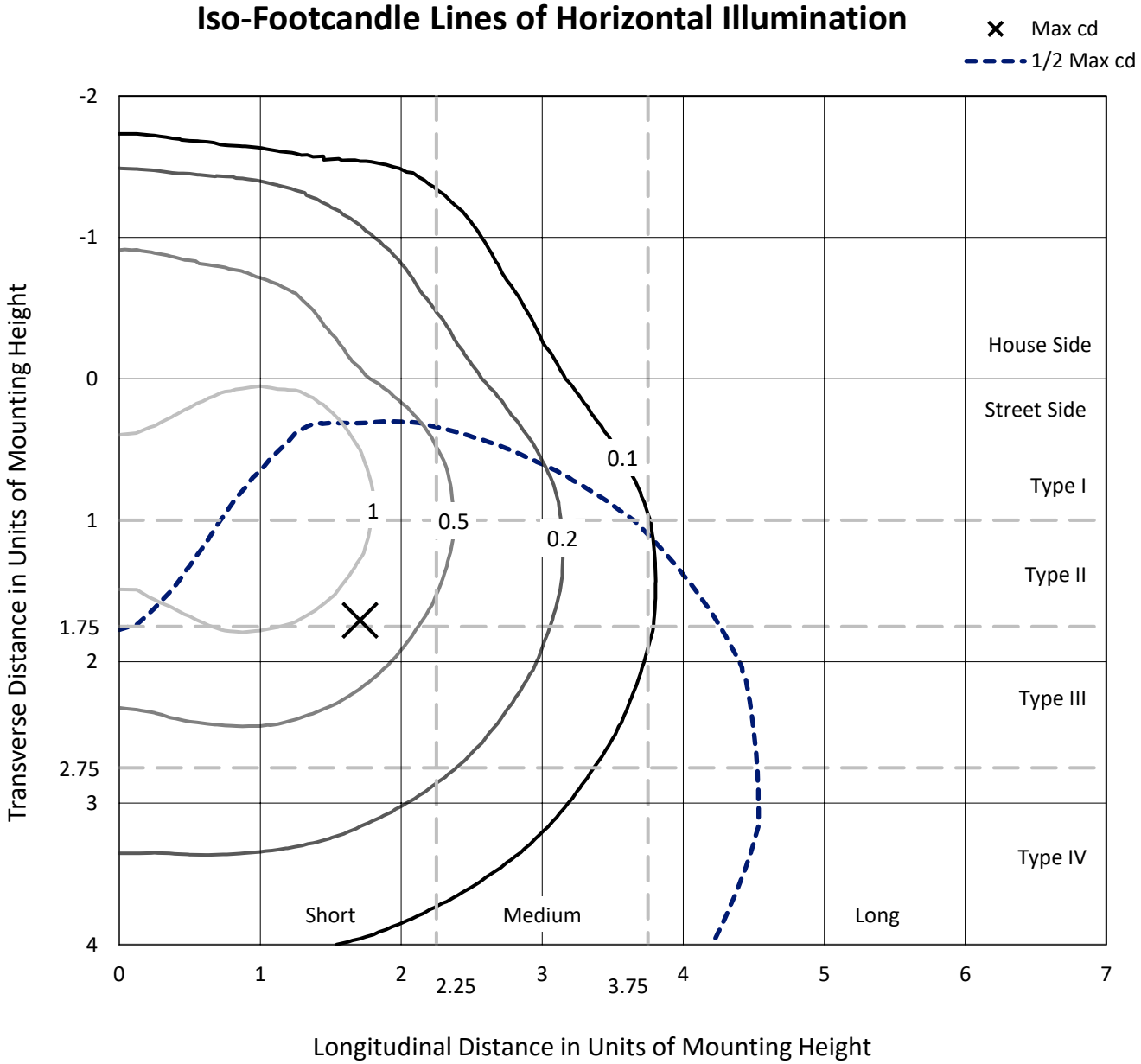
Input Watts (W):	46
Input Voltage (V):	NR
Input Current (Ain):	NR
Voltage Rise (V):	NR
Power Factor:	NR
Total Harmonic Distortion (THDi):	NR
Frequency (hertz):	60
Stabilization Time:	NR
Operation Time:	NR
Ambient Temperature (°C):	NR
Test Distance:	25 FT

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Iso-Footcandle Lines of Horizontal Illumination



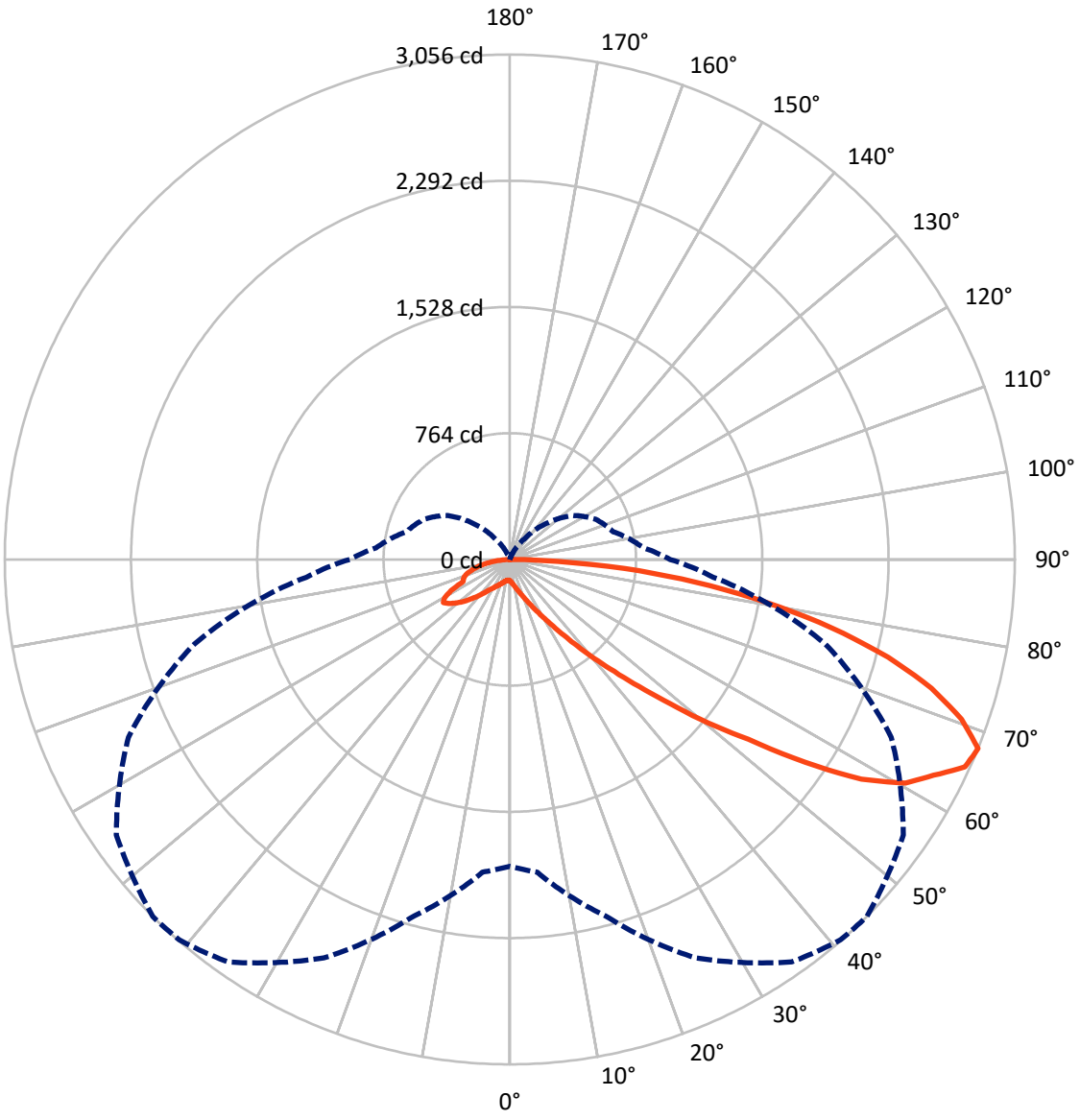
Based on 15 foot mounting height. Maximum calculated value = 1.8 fc
Type IV - Short - N/A

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Luminous Intensity Polar Plot



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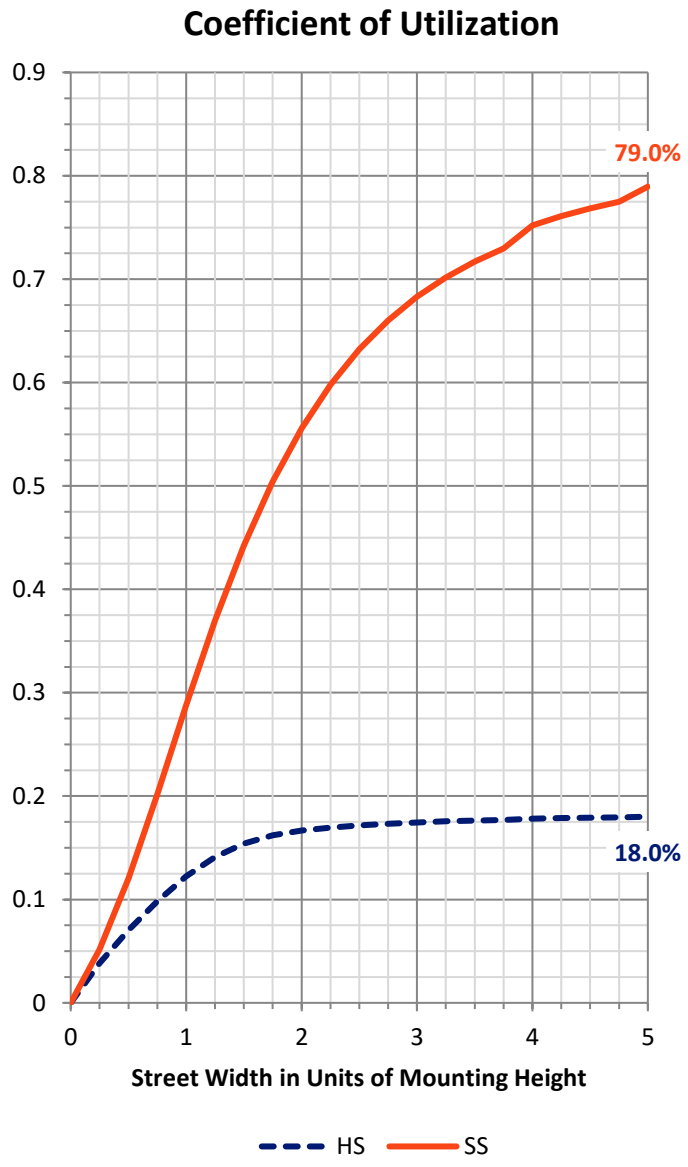
REPORT NUMBER: P821295
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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	856.6	1.0	857.6
	% Fixture	18.2	0.0	18.2
Street Side	Lumens	3846.9	10.5	3857.4
	% Fixture	81.6	0.2	81.8
Total	Lumens	4703.5	11.5	4715.0
	% Fixture	99.8	0.2	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	13.3	0.3
10°-20°	49.6	1.1
20°-30°	114.4	2.4
30°-40°	243.9	5.2
40°-50°	510.6	10.8
50°-60°	968.6	20.5
60°-70°	1318.2	28.0
70°-80°	1133.4	24.0
80°-90°	351.4	7.5
90°-100°	7.4	0.2
100°-110°	2.2	0.0
110°-120°	0.6	0.0
120°-130°	0.4	0.0
130°-140°	0.3	0.0
140°-150°	0.3	0.0
150°-160°	0.2	0.0
160°-170°	0.1	0.0
170°-180°	0.0	0.0
0°-90°	4703.5	99.8
0°-180°	4715.0	100.0



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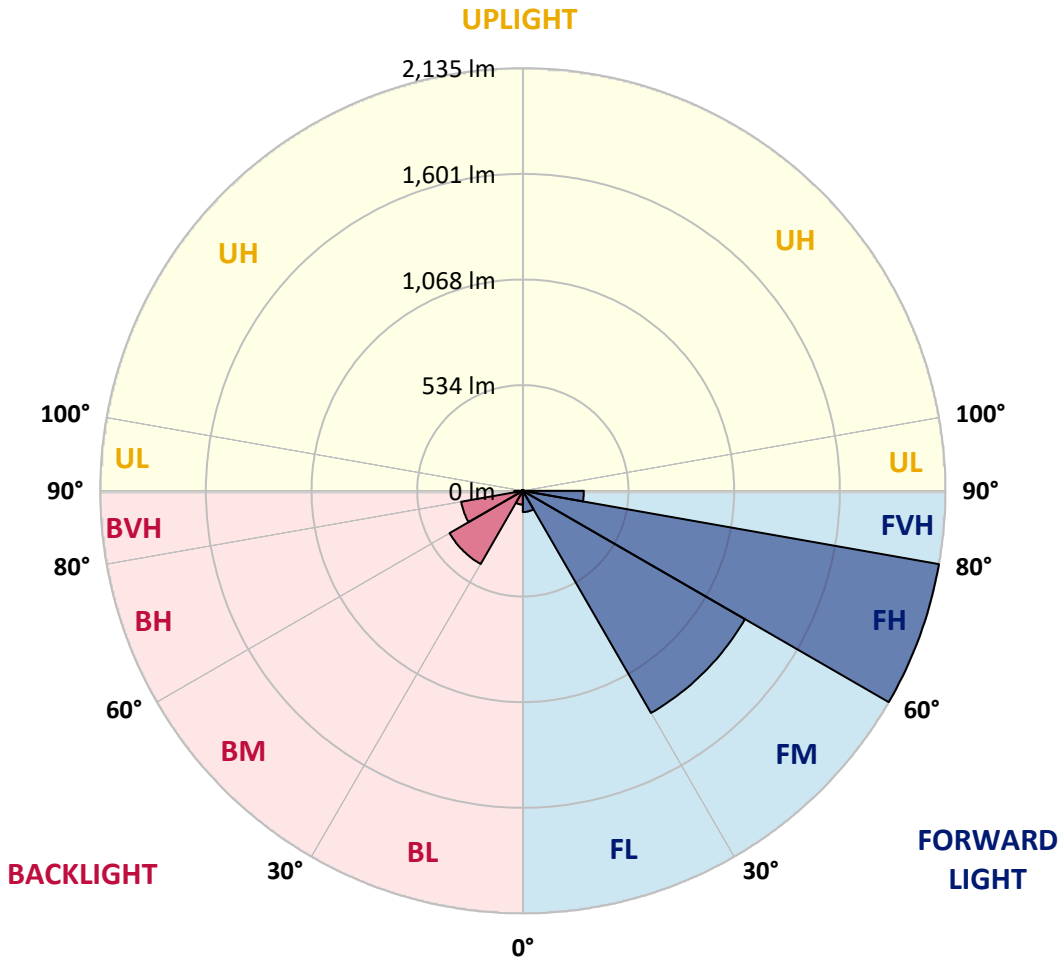
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	107.5	2.3			
FM	(30°-60°)	1295.8	27.5			
FH	(60°-80°)	2135.2	45.3			G2/5000
FVH	(80°-90°)	308.4	6.5			G3/500
BL	(0°-30°)	69.8	1.5	B0/110		
BM	(30°-60°)	427.3	9.1	B1/1000		
BH	(60°-80°)	316.4	6.7	B1/500		G1/500
BVH	(80°-90°)	43.1	0.9			G1/100
UL	(90°-100°)	7.4	0.2		U1/10	
UH	(100°-180°)	4.0	0.1		U1/10	

BUG Rating: B1-U1-G3
Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	41°	45°	55°	65°	75°	85°
0°	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0
2.5°	140.0	139.0	139.0	138.0	138.0	136.0	136.0	135.0	134.0	133.0	131.0
5°	150.0	149.0	149.0	148.0	147.0	145.0	144.0	142.0	140.0	138.0	136.0
7.5°	162.0	161.0	161.0	160.0	158.0	155.0	154.0	151.0	148.0	145.0	142.0
10°	177.0	176.0	176.0	174.0	172.0	169.0	167.0	163.0	160.0	155.0	150.0
12.5°	193.0	192.0	192.0	190.0	186.0	184.0	182.0	177.0	172.0	166.0	160.0
15°	211.0	211.0	211.0	210.0	206.0	202.0	200.0	194.0	188.0	179.0	171.0
17.5°	234.0	233.0	233.0	231.0	226.0	224.0	221.0	214.0	205.0	195.0	185.0
20°	262.0	261.0	259.0	258.0	253.0	251.0	247.0	239.0	227.0	214.0	200.0
22.5°	290.0	290.0	289.0	290.0	286.0	284.0	279.0	268.0	254.0	235.0	218.0
25°	322.0	323.0	325.0	328.0	323.0	321.0	317.0	303.0	286.0	262.0	238.0
27.5°	362.0	362.0	367.0	372.0	368.0	367.0	361.0	346.0	322.0	293.0	265.0
30°	405.0	406.0	414.0	423.0	421.0	421.0	416.0	399.0	370.0	336.0	297.0
32.5°	455.0	459.0	467.0	477.0	484.0	484.0	482.0	464.0	430.0	384.0	336.0
35°	521.1	514.1	529.1	544.1	559.1	562.1	563.1	546.1	507.0	449.0	384.0
37.5°	578.1	577.1	600.1	626.1	651.1	661.1	664.1	648.1	598.1	522.1	436.0
40°	644.1	650.1	681.1	720.1	762.1	779.1	787.1	769.1	707.1	609.1	496.0
42.5°	713.1	731.1	770.1	829.1	893.1	918.1	927.1	910.1	837.1	718.1	572.1
45°	794.1	819.1	871.1	955.1	1039.1	1076.1	1096.1	1090.1	1015.1	867.1	670.1
47.5°	894.1	912.1	983.1	1096.1	1215.1	1276.1	1304.1	1321.1	1214.1	1021.1	756.1
50°	1007.1	1010.1	1108.1	1251.1	1425.1	1506.1	1555.2	1547.2	1420.1	1198.1	865.1
52.5°	1121.1	1118.1	1246.1	1440.1	1668.2	1774.2	1807.2	1840.2	1715.2	1468.1	1040.1
55°	1251.1	1245.1	1406.1	1652.2	1935.2	2075.2	2168.2	2214.2	2017.2	1646.2	1116.1
57.5°	1359.1	1378.1	1580.2	1876.2	2271.2	2447.2	2508.2	2483.2	2183.2	1736.2	1153.1
60°	1496.1	1524.2	1754.2	2169.2	2562.3	2693.3	2749.3	2635.3	2289.2	1804.2	1179.1
62.5°	1625.2	1661.2	1945.2	2407.2	2744.3	2864.3	2878.3	2754.3	2438.2	1938.2	1255.1
65°	1746.2	1787.2	2135.2	2548.3	2903.3	3003.3	3027.3	2929.3	2596.3	2017.2	1285.1
67.5°	1857.2	1900.2	2233.2	2661.3	2974.3	3051.3	3056.3	2907.3	2547.3	1976.2	1237.1
70°	1942.2	1961.2	2280.2	2658.3	2890.3	2920.3	2900.3	2750.3	2432.2	1892.2	1168.1
72.5°	1959.2	1973.2	2215.2	2510.2	2657.3	2685.3	2669.3	2537.3	2251.2	1742.2	1056.1
75°	1873.2	1876.2	2040.2	2244.2	2351.2	2385.2	2364.2	2242.2	1979.2	1530.2	909.1
77.5°	1648.2	1654.2	1753.2	1890.2	1980.2	2009.2	1993.2	1881.2	1658.2	1285.1	752.1
80°	1306.1	1318.1	1389.1	1484.1	1566.2	1596.2	1577.2	1487.1	1305.1	1010.1	587.1
82.5°	890.1	905.1	970.1	1049.1	1121.1	1150.1	1134.1	1077.1	941.1	728.1	419.0
85°	450.0	466.0	533.1	607.1	670.1	701.1	696.1	672.1	579.1	449.0	253.0
87.5°	71.0	78.0	106.0	141.0	180.0	209.0	191.0	189.0	150.0	120.0	61.0
90°	29.0	29.0	28.0	27.0	24.0	22.0	21.0	17.0	13.0	8.0	3.0
92.5°	26.0	26.0	25.0	23.0	21.0	20.0	18.0	15.0	11.0	7.0	3.0
95°	21.0	21.0	20.0	19.0	17.0	16.0	14.0	12.0	9.0	6.0	3.0
97.5°	16.0	16.0	15.0	14.0	13.0	11.0	11.0	9.0	6.0	4.0	2.0
100°	12.0	12.0	11.0	10.0	9.0	8.0	8.0	6.0	4.0	3.0	2.0
102.5°	8.0	8.0	8.0	7.0	6.0	6.0	5.0	4.0	3.0	2.0	2.0
105°	5.0	5.0	5.0	5.0	4.0	3.0	3.0	2.0	2.0	2.0	2.0
107.5°	3.0	3.0	3.0	3.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
110°	2.0	2.0	2.0	1.0	1.0	1.0	1.0	1.0	1.0	2.0	1.0

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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	41°	45°	55°	65°	75°	85°
112.5°	1.0	1.0	1.0	1.0	1.0	1.0	*1.0*	1.0	1.0	1.0	1.0
115°	0.0	0.0	1.0	1.0	1.0	1.0	*1.0*	1.0	1.0	1.0	1.0
117.5°	0.0	0.0	0.0	0.0	0.0	1.0	*1.0*	1.0	1.0	1.0	1.0
120°	0.0	0.0	0.0	0.0	0.0	1.0	*1.0*	1.0	1.0	1.0	1.0
122.5°	0.0	0.0	0.0	0.0	0.0	1.0	*1.0*	1.0	1.0	1.0	1.0
125°	0.0	0.0	0.0	1.0	0.0	1.0	*1.0*	1.0	1.0	1.0	1.0
127.5°	0.0	0.0	0.0	1.0	0.0	0.0	*1.0*	1.0	1.0	1.0	1.0
130°	0.0	0.0	0.0	0.0	0.0	0.0	*1.0*	1.0	1.0	1.0	1.0
132.5°	0.0	0.0	0.0	0.0	0.0	0.0	*1.0*	1.0	1.0	1.0	1.0
135°	0.0	0.0	0.0	0.0	0.0	0.0	*1.0*	1.0	1.0	1.0	1.0
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	*1.0*	1.0	1.0	1.0	1.0
140°	0.0	0.0	0.0	0.0	0.0	0.0	*0.0*	1.0	1.0	1.0	1.0
142.5°	1.0	1.0	0.0	0.0	0.0	0.0	*1.0*	1.0	1.0	1.0	1.0
145°	1.0	1.0	0.0	0.0	0.0	0.0	*1.0*	1.0	1.0	1.0	1.0
147.5°	1.0	1.0	0.0	0.0	0.0	0.0	*1.0*	1.0	1.0	1.0	1.0
150°	0.0	0.0	0.0	0.0	0.0	0.0	*1.0*	1.0	1.0	1.0	1.0
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	*0.0*	1.0	1.0	1.0	1.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	*1.0*	1.0	1.0	1.0	1.0
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	*1.0*	1.0	1.0	1.0	1.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	*0.0*	1.0	1.0	1.0	1.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	*1.0*	1.0	1.0	1.0	1.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	*1.0*	1.0	1.0	1.0	1.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	*1.0*	1.0	1.0	1.0	1.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	*1.0*	1.0	1.0	1.0	1.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	*1.0*	1.0	1.0	1.0	1.0
175°	0.0	0.0	0.0	0.0	0.0	1.0	*1.0*	1.0	1.0	1.0	1.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	*1.0*	1.0	1.0	1.0	1.0
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°	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0
2.5°	131.0	130.0	128.0	127.0	125.0	125.0	124.0	123.0	123.0	123.0	123.0
5°	134.0	133.0	131.0	129.0	127.0	125.0	124.0	123.0	123.0	123.0	122.0
7.5°	140.0	138.0	135.0	132.0	129.0	127.0	126.0	125.0	124.0	124.0	124.0
10°	147.0	145.0	140.0	137.0	133.0	130.0	129.0	128.0	127.0	127.0	127.0
12.5°	156.0	153.0	147.0	142.0	138.0	135.0	133.0	132.0	132.0	131.0	132.0
15°	167.0	163.0	155.0	149.0	144.0	141.0	139.0	138.0	138.0	138.0	137.0
17.5°	179.0	174.0	164.0	157.0	151.0	148.0	146.0	145.0	145.0	145.0	145.0
20°	193.0	186.0	175.0	166.0	160.0	156.0	154.0	154.0	153.0	154.0	154.0
22.5°	208.0	200.0	186.0	176.0	168.0	164.0	162.0	162.0	162.0	163.0	164.0
25°	226.0	216.0	199.0	186.0	177.0	173.0	171.0	172.0	172.0	173.0	173.0
27.5°	250.0	235.0	214.0	198.0	188.0	183.0	181.0	182.0	183.0	183.0	183.0
30°	277.0	259.0	230.0	213.0	201.0	195.0	193.0	194.0	195.0	197.0	196.0
32.5°	310.0	288.0	254.0	230.0	217.0	210.0	208.0	207.0	209.0	211.0	211.0
35°	350.0	322.0	282.0	254.0	235.0	226.0	224.0	223.0	224.0	226.0	228.0
37.5°	393.0	359.0	310.0	281.0	260.0	250.0	245.0	241.0	242.0	243.0	246.0
40°	442.0	400.0	342.0	307.0	288.0	276.0	269.0	263.0	265.0	265.0	266.0
42.5°	504.0	451.0	382.0	338.0	318.0	305.0	294.0	287.0	283.0	284.0	280.0
45°	585.1	519.1	432.0	382.0	354.0	334.0	321.0	307.0	297.0	299.0	293.0
47.5°	652.1	573.1	479.0	424.0	394.0	369.0	342.0	322.0	308.0	306.0	302.0
50°	734.1	639.1	533.1	470.0	438.0	400.0	368.0	334.0	311.0	305.0	306.0
52.5°	872.1	755.1	610.1	532.1	476.0	431.0	382.0	335.0	304.0	295.0	298.0
55°	922.1	794.1	650.1	583.1	528.1	458.0	388.0	324.0	284.0	276.0	277.0
57.5°	933.1	794.1	653.1	599.1	553.1	480.0	385.0	299.0	246.0	239.0	238.0
60°	939.1	789.1	642.1	587.1	537.1	459.0	346.0	241.0	189.0	184.0	181.0
62.5°	995.1	831.1	653.1	578.1	507.0	403.0	263.0	154.0	105.0	104.0	102.0
65°	1012.1	846.1	667.1	584.1	474.0	313.0	156.0	52.0	11.0	12.0	10.0
67.5°	*970.1*	*812.1*	*647.1*	*575.1*	*464.0*	*305.0*	*150.0*	*44.0*	*0.0*	*0.0*	*0.0*
70°	912.1	763.1	612.1	544.1	443.0	293.0	147.0	44.0	0.0	0.0	0.0
72.5°	820.1	693.1	556.1	502.0	407.0	269.0	137.0	42.0	0.0	0.0	0.0
75°	712.1	603.1	487.0	445.0	361.0	236.0	123.0	38.0	0.0	0.0	0.0
77.5°	596.1	503.0	407.0	375.0	305.0	201.0	104.0	32.0	0.0	0.0	0.0
80°	468.0	398.0	321.0	299.0	241.0	160.0	83.0	25.0	0.0	0.0	0.0
82.5°	337.0	289.0	237.0	219.0	177.0	116.0	60.0	17.0	0.0	0.0	0.0
85°	208.0	181.0	153.0	142.0	112.0	72.0	36.0	9.0	0.0	0.0	0.0
87.5°	62.0	60.0	54.0	53.0	38.0	22.0	8.0	1.0	0.0	0.0	0.0
90°	1.0	1.0	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
92.5°	1.0	1.0	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	1.0	1.0	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
97.5°	1.0	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100°	1.0	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
102.5°	1.0	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105°	1.0	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	1.0	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
110°	1.0	1.0	1.0	1.0	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

Scaled Data Report

REPORT NUMBER: P821295
CATALOG NUMBER: TT-D3-740-24VDC-DL-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
112.5°	1.0	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
115°	1.0	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	1.0	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	1.0	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122.5°	1.0	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	1.0	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127.5°	1.0	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	1.0	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	1.0	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	1.0	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	1.0	1.0	1.0	0.0	0.0	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: SP1-2407-176-5

Test Date: 09/24/2024

Luminaire Tested: MEM2-HTN-VA-30-740-U-WQ

Data in this report applies to families of products including MEM2-HTN-VA-30-740-U-WQ

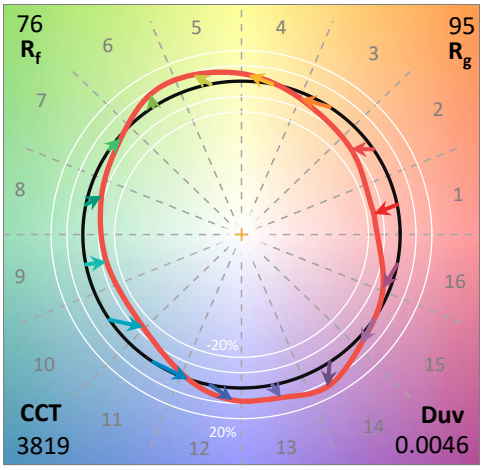
Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

Test Information

Test Method:	LM-79-2019
Report Number:	SP1-2407-176-5
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-30-740-U-WQ**
Description:	EPIC MODERN VISUAL COMFORT 30W WAVESTREAM WIDE

Spectral Parameters

CCT (K):	3819	CRI (Ra):	72.9		
CIE u':	0.2261	R1:	70.1	R9:	-21.5
CIE v':	0.5108	R2:	78.4	R10:	48.5
Duv:	0.0046	R3:	85.0	R11:	68.4
CIE x:	0.3926	R4:	72.9	R12:	39.0
CIE y:	0.3942	R5:	69.1	R13:	71.1
CIE z:	0.2132	R6:	69.2	R14:	91.3
Peak Wavelength (nm):	450	R7:	82.8	R15:	63.2
Dominant Wavelength (nm):	577	R8:	55.4		
Purity:	36.15483				
Rf:	75.6				
Rg:	94.8				



Test Conditions

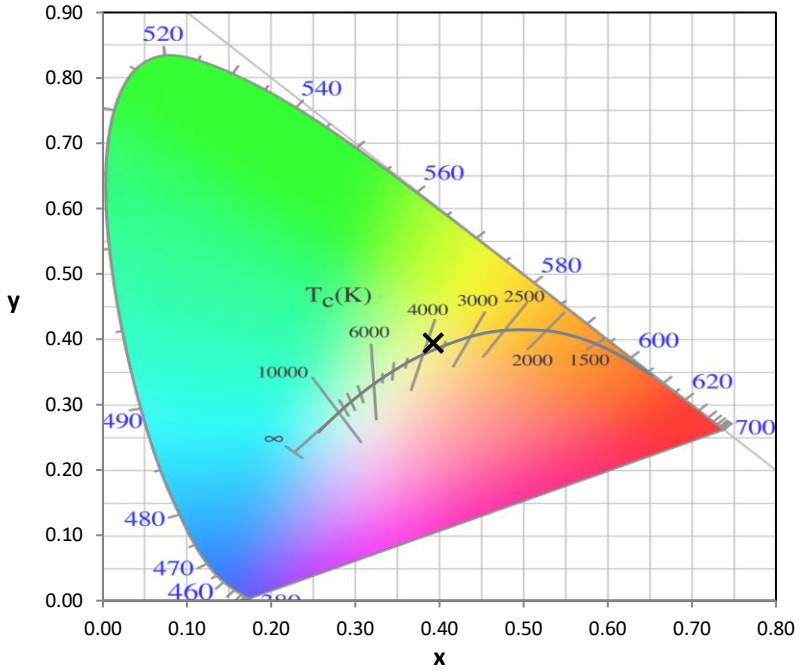
Stabilization Time:	30M
Operation Time:	1H 30M
Sphere Temperature (°C):	25.2

REPORT NUMBER: SP1-2407-176-5

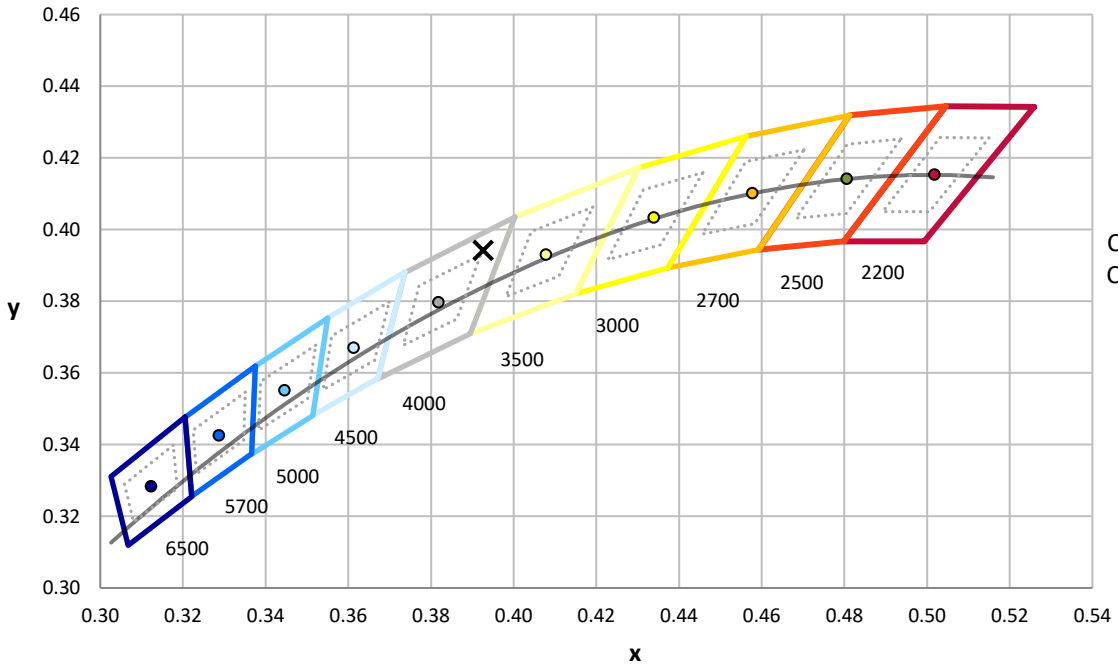
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

REPORT NUMBER: SP1-2407-176-5

CIE 1931 Chromaticity Diagram



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

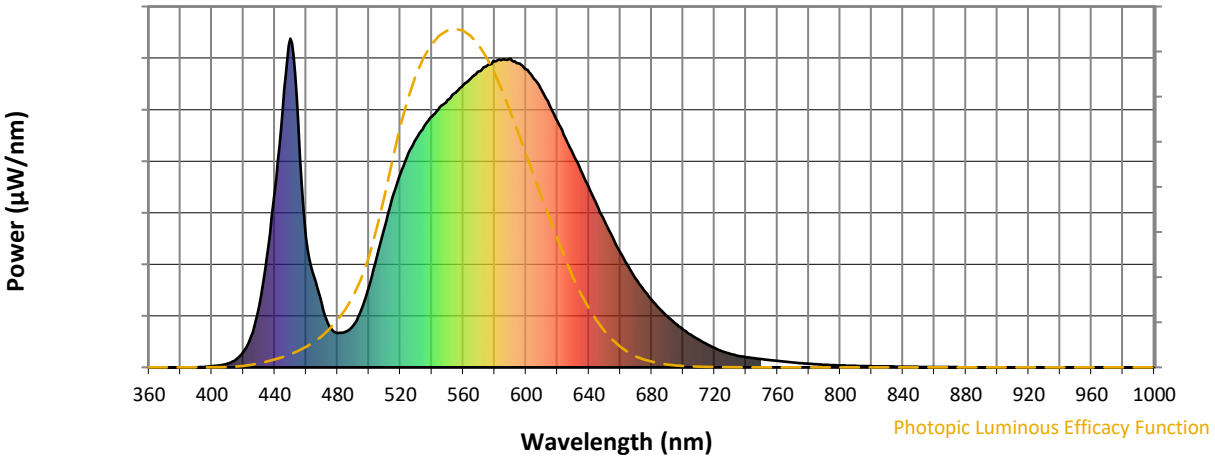


CCT = 3819K
CIE x = 0.3926
CIE y = 0.3942
Duv = 0.0046

Point lies inside the ANSI 4000K 7-step quadrangle

REPORT NUMBER: SP1-2407-176-5

Photopic Flux vs. Wavelength

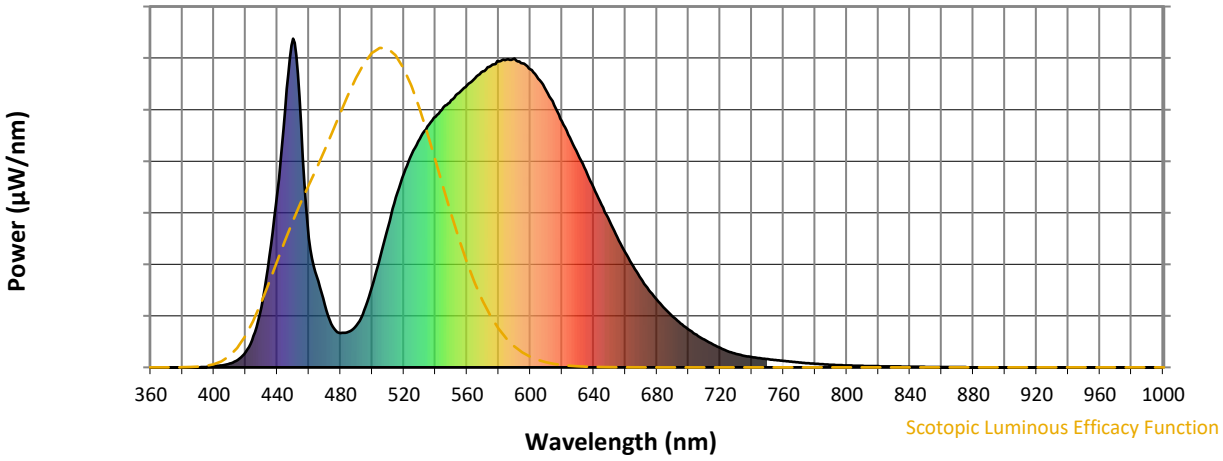


Photopic Lumens: NR

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	127	NR	620	748	NR	750	25	NR	880	0	NR
365	0	NR	495	173	NR	625	699	NR	755	22	NR	885	0	NR
370	0	NR	500	246	NR	630	648	NR	760	20	NR	890	0	NR
375	0	NR	505	335	NR	635	599	NR	765	17	NR	895	0	NR
380	0	NR	510	427	NR	640	547	NR	770	15	NR	900	0	NR
385	0	NR	515	517	NR	645	495	NR	775	13	NR	905	0	NR
390	0	NR	520	589	NR	650	445	NR	780	11	NR	910	0	NR
395	1	NR	525	649	NR	655	396	NR	785	9	NR	915	0	NR
400	4	NR	530	695	NR	660	349	NR	790	8	NR	920	0	NR
405	6	NR	535	733	NR	665	308	NR	795	7	NR	925	0	NR
410	11	NR	540	763	NR	670	269	NR	800	6	NR	930	0	NR
415	23	NR	545	792	NR	675	235	NR	805	5	NR	935	0	NR
420	46	NR	550	813	NR	680	205	NR	810	5	NR	940	0	NR
425	95	NR	555	835	NR	685	178	NR	815	4	NR	945	0	NR
430	183	NR	560	859	NR	690	155	NR	820	3	NR	950	0	NR
435	338	NR	565	880	NR	695	134	NR	825	3	NR	955	0	NR
440	534	NR	570	900	NR	700	115	NR	830	3	NR	960	0	NR
445	782	NR	575	918	NR	705	99	NR	835	2	NR	965	0	NR
450	1000	NR	580	931	NR	710	84	NR	840	2	NR	970	0	NR
455	739	NR	585	937	NR	715	71	NR	845	2	NR	975	0	NR
460	393	NR	590	939	NR	720	59	NR	850	1	NR	980	0	NR
465	276	NR	595	925	NR	725	49	NR	855	1	NR	985	0	NR
470	190	NR	600	907	NR	730	41	NR	860	1	NR	990	0	NR
475	123	NR	605	878	NR	735	35	NR	865	1	NR	995	0	NR
480	105	NR	610	842	NR	740	31	NR	870	1	NR	1000	0	NR
485	108	NR	615	797	NR	745	28	NR	875	1	NR			

REPORT NUMBER: SP1-2407-176-5

Scotopic Flux vs. Wavelength

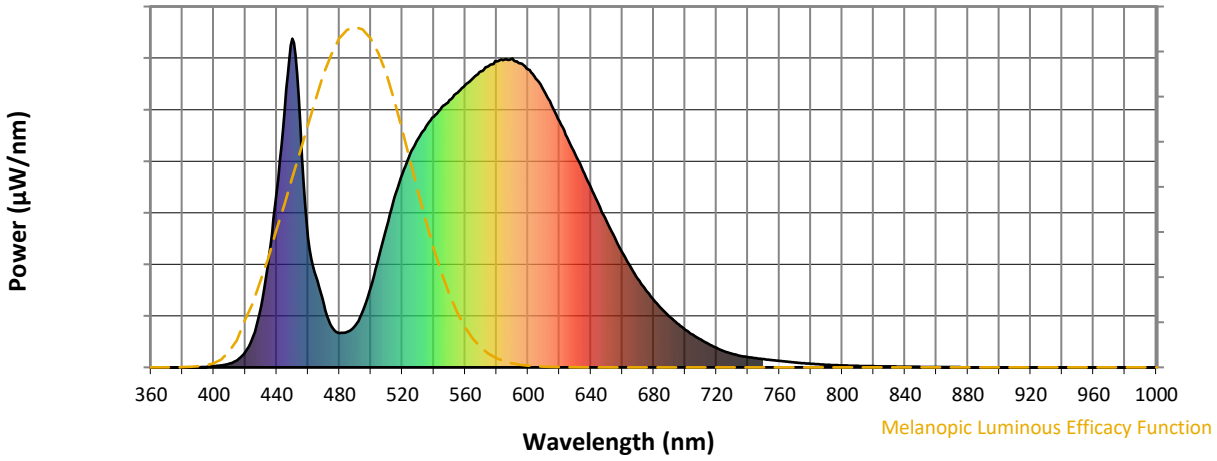


Scotopic Lumens: NR **S/P: 1.45**

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	127	NR	620	748	NR	750	25	NR	880	0	NR
365	0	NR	495	173	NR	625	699	NR	755	22	NR	885	0	NR
370	0	NR	500	246	NR	630	648	NR	760	20	NR	890	0	NR
375	0	NR	505	335	NR	635	599	NR	765	17	NR	895	0	NR
380	0	NR	510	427	NR	640	547	NR	770	15	NR	900	0	NR
385	0	NR	515	517	NR	645	495	NR	775	13	NR	905	0	NR
390	0	NR	520	589	NR	650	445	NR	780	11	NR	910	0	NR
395	1	NR	525	649	NR	655	396	NR	785	9	NR	915	0	NR
400	4	NR	530	695	NR	660	349	NR	790	8	NR	920	0	NR
405	6	NR	535	733	NR	665	308	NR	795	7	NR	925	0	NR
410	11	NR	540	763	NR	670	269	NR	800	6	NR	930	0	NR
415	23	NR	545	792	NR	675	235	NR	805	5	NR	935	0	NR
420	46	NR	550	813	NR	680	205	NR	810	5	NR	940	0	NR
425	95	NR	555	835	NR	685	178	NR	815	4	NR	945	0	NR
430	183	NR	560	859	NR	690	155	NR	820	3	NR	950	0	NR
435	338	NR	565	880	NR	695	134	NR	825	3	NR	955	0	NR
440	534	NR	570	900	NR	700	115	NR	830	3	NR	960	0	NR
445	782	NR	575	918	NR	705	99	NR	835	2	NR	965	0	NR
450	1000	NR	580	931	NR	710	84	NR	840	2	NR	970	0	NR
455	739	NR	585	937	NR	715	71	NR	845	2	NR	975	0	NR
460	393	NR	590	939	NR	720	59	NR	850	1	NR	980	0	NR
465	276	NR	595	925	NR	725	49	NR	855	1	NR	985	0	NR
470	190	NR	600	907	NR	730	41	NR	860	1	NR	990	0	NR
475	123	NR	605	878	NR	735	35	NR	865	1	NR	995	0	NR
480	105	NR	610	842	NR	740	31	NR	870	1	NR	1000	0	NR
485	108	NR	615	797	NR	745	28	NR	875	1	NR			

REPORT NUMBER: SP1-2407-176-5

Melanopic Flux vs. Wavelength



Melanopic Lumens: NR **M/P: 2.76**

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	127	NR	620	748	NR	750	25	NR	880	0	NR
365	0	NR	495	173	NR	625	699	NR	755	22	NR	885	0	NR
370	0	NR	500	246	NR	630	648	NR	760	20	NR	890	0	NR
375	0	NR	505	335	NR	635	599	NR	765	17	NR	895	0	NR
380	0	NR	510	427	NR	640	547	NR	770	15	NR	900	0	NR
385	0	NR	515	517	NR	645	495	NR	775	13	NR	905	0	NR
390	0	NR	520	589	NR	650	445	NR	780	11	NR	910	0	NR
395	1	NR	525	649	NR	655	396	NR	785	9	NR	915	0	NR
400	4	NR	530	695	NR	660	349	NR	790	8	NR	920	0	NR
405	6	NR	535	733	NR	665	308	NR	795	7	NR	925	0	NR
410	11	NR	540	763	NR	670	269	NR	800	6	NR	930	0	NR
415	23	NR	545	792	NR	675	235	NR	805	5	NR	935	0	NR
420	46	NR	550	813	NR	680	205	NR	810	5	NR	940	0	NR
425	95	NR	555	835	NR	685	178	NR	815	4	NR	945	0	NR
430	183	NR	560	859	NR	690	155	NR	820	3	NR	950	0	NR
435	338	NR	565	880	NR	695	134	NR	825	3	NR	955	0	NR
440	534	NR	570	900	NR	700	115	NR	830	3	NR	960	0	NR
445	782	NR	575	918	NR	705	99	NR	835	2	NR	965	0	NR
450	1000	NR	580	931	NR	710	84	NR	840	2	NR	970	0	NR
455	739	NR	585	937	NR	715	71	NR	845	2	NR	975	0	NR
460	393	NR	590	939	NR	720	59	NR	850	1	NR	980	0	NR
465	276	NR	595	925	NR	725	49	NR	855	1	NR	985	0	NR
470	190	NR	600	907	NR	730	41	NR	860	1	NR	990	0	NR
475	123	NR	605	878	NR	735	35	NR	865	1	NR	995	0	NR
480	105	NR	610	842	NR	740	31	NR	870	1	NR	1000	0	NR
485	108	NR	615	797	NR	745	28	NR	875	1	NR			

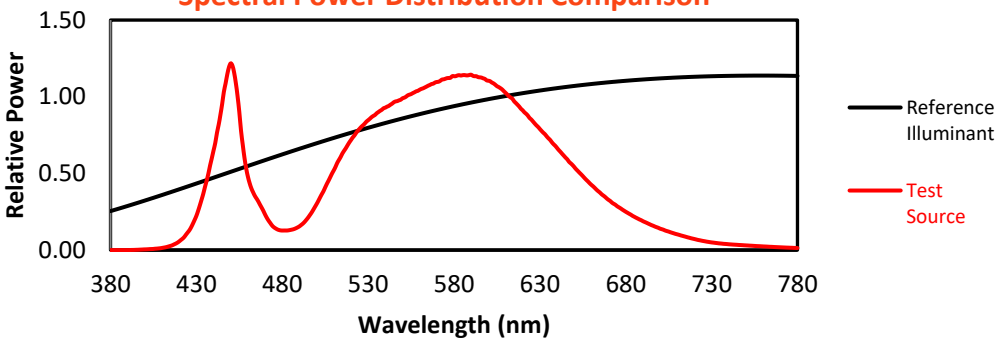
REPORT NUMBER: SP1-2407-176-5

TM-30-18

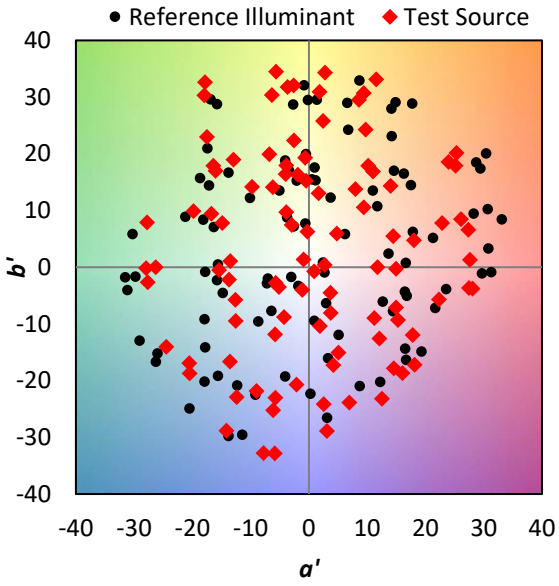
Summary

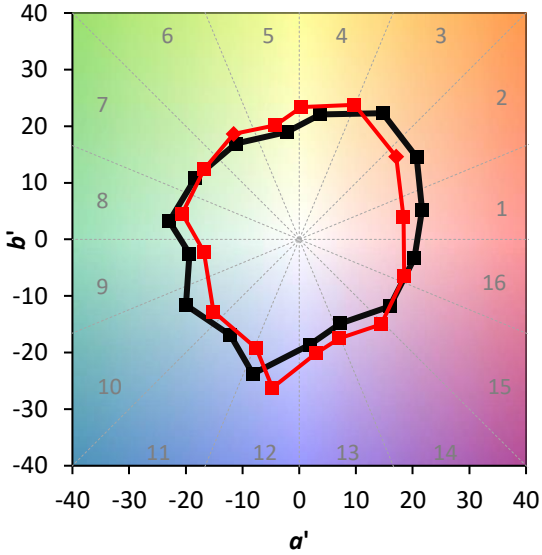
R_f = 75.6
R_g = 94.8
CIE R_a = 72.9
R_9 = -21.5

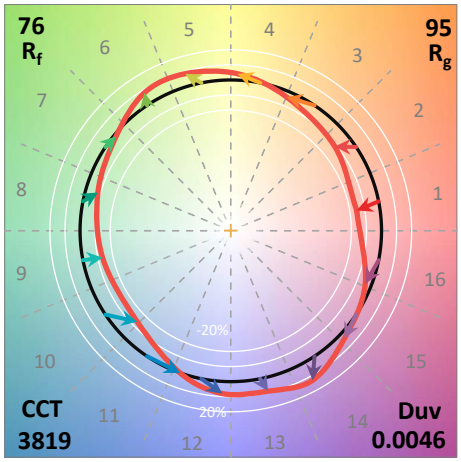
Spectral Power Distribution Comparison

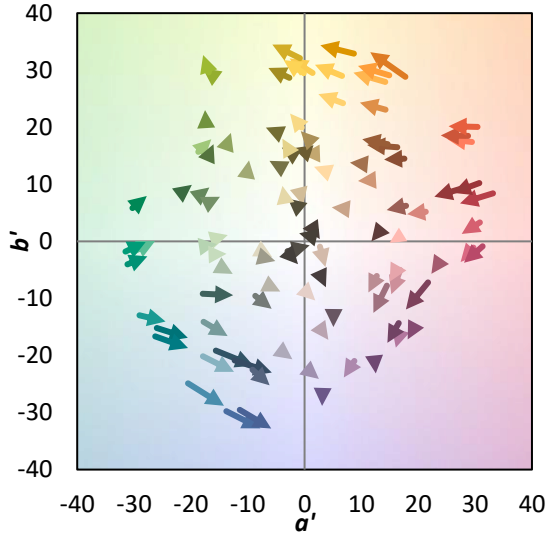


Color Vector Graphics







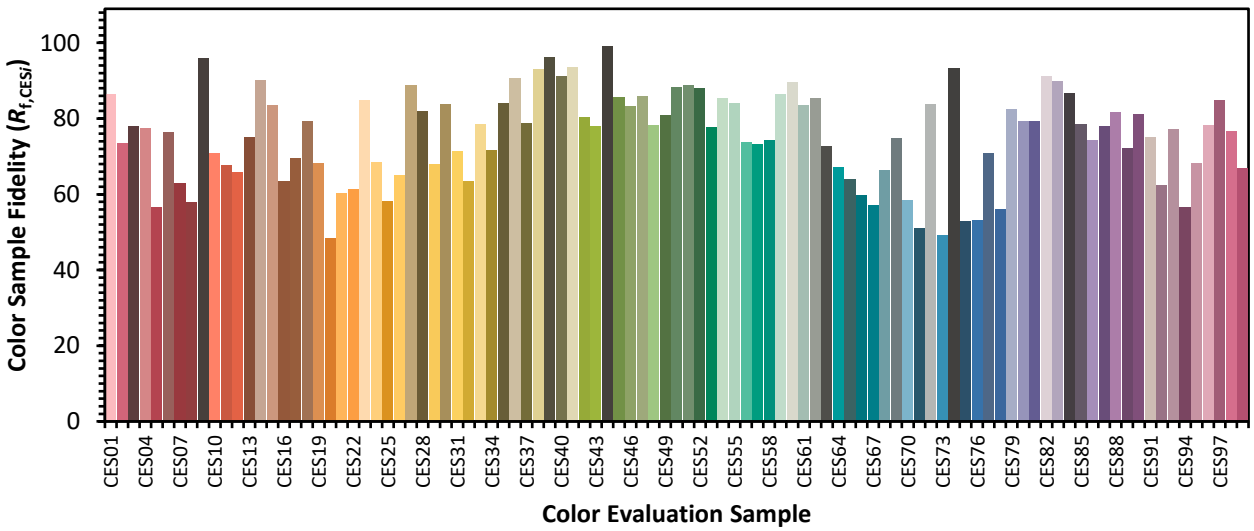


REPORT NUMBER: SP1-2407-176-5

TM-30-18

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

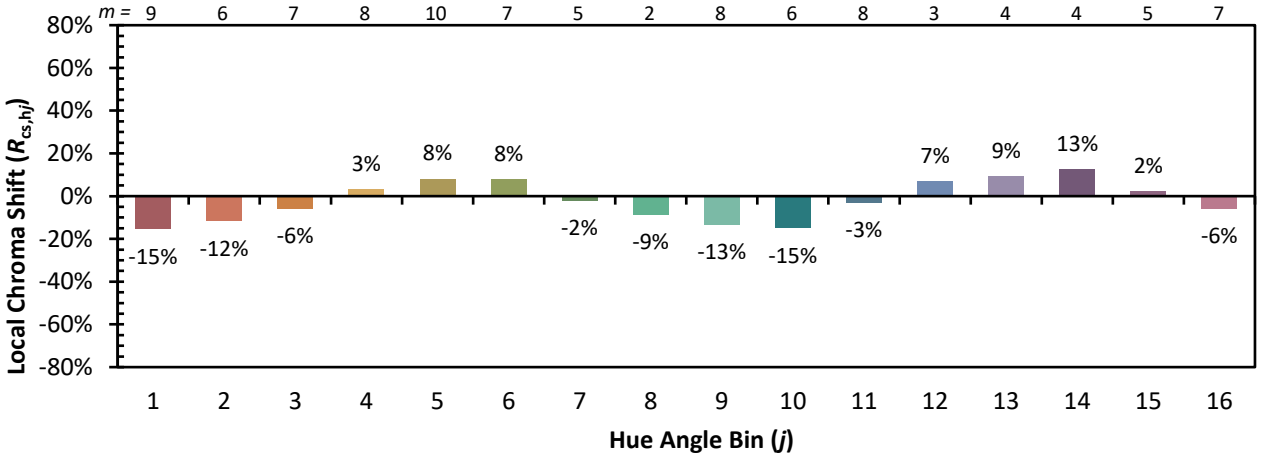
CES01 = 85	CES26 = 65	CES51 = 89	CES76 = 53
CES02 = 61	CES27 = 89	CES52 = 88	CES77 = 71
CES03 = 30	CES28 = 82	CES53 = 78	CES78 = 56
CES04 = 70	CES29 = 68	CES54 = 85	CES79 = 83
CES05 = 48	CES30 = 84	CES55 = 84	CES80 = 79
CES06 = 50	CES31 = 71	CES56 = 74	CES81 = 79
CES07 = 40	CES32 = 63	CES57 = 73	CES82 = 91
CES08 = 39	CES33 = 79	CES58 = 74	CES83 = 90
CES09 = 29	CES34 = 72	CES59 = 86	CES84 = 87
CES10 = 74	CES35 = 84	CES60 = 90	CES85 = 78
CES11 = 57	CES36 = 91	CES61 = 84	CES86 = 74
CES12 = 63	CES37 = 79	CES62 = 85	CES87 = 78
CES13 = 42	CES38 = 93	CES63 = 73	CES88 = 82
CES14 = 74	CES39 = 96	CES64 = 67	CES89 = 72
CES15 = 71	CES40 = 91	CES65 = 64	CES90 = 81
CES16 = 47	CES41 = 93	CES66 = 60	CES91 = 75
CES17 = 49	CES42 = 80	CES67 = 57	CES92 = 62
CES18 = 56	CES43 = 78	CES68 = 66	CES93 = 77
CES19 = 72	CES44 = 99	CES69 = 75	CES94 = 57
CES20 = 65	CES45 = 86	CES70 = 58	CES95 = 68
CES21 = 86	CES46 = 83	CES71 = 51	CES96 = 78
CES22 = 78	CES47 = 86	CES72 = 84	CES97 = 85
CES23 = 92	CES48 = 78	CES73 = 49	CES98 = 77
CES24 = 91	CES49 = 81	CES74 = 93	CES99 = 67
CES25 = 72	CES50 = 88	CES75 = 53	

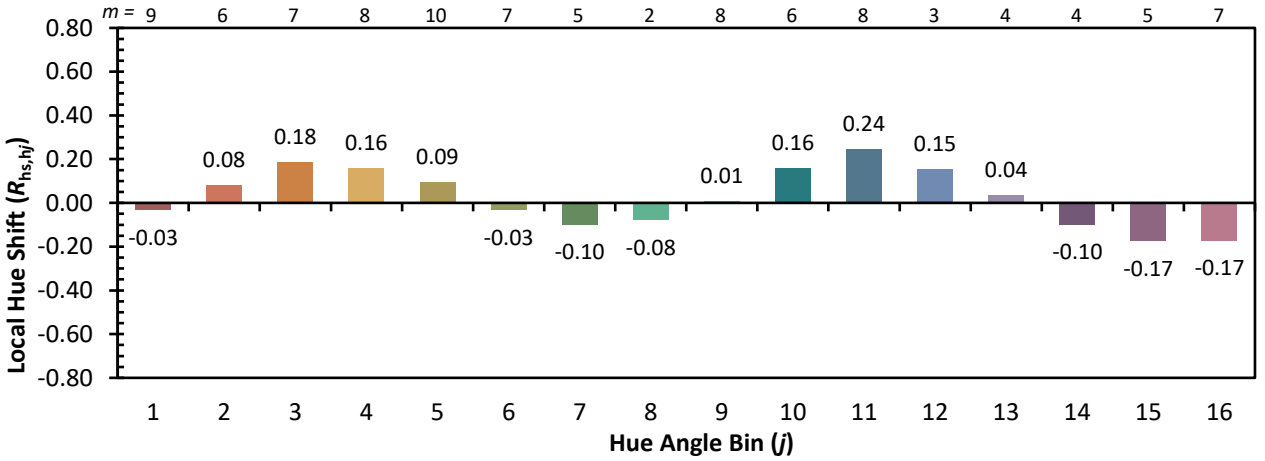


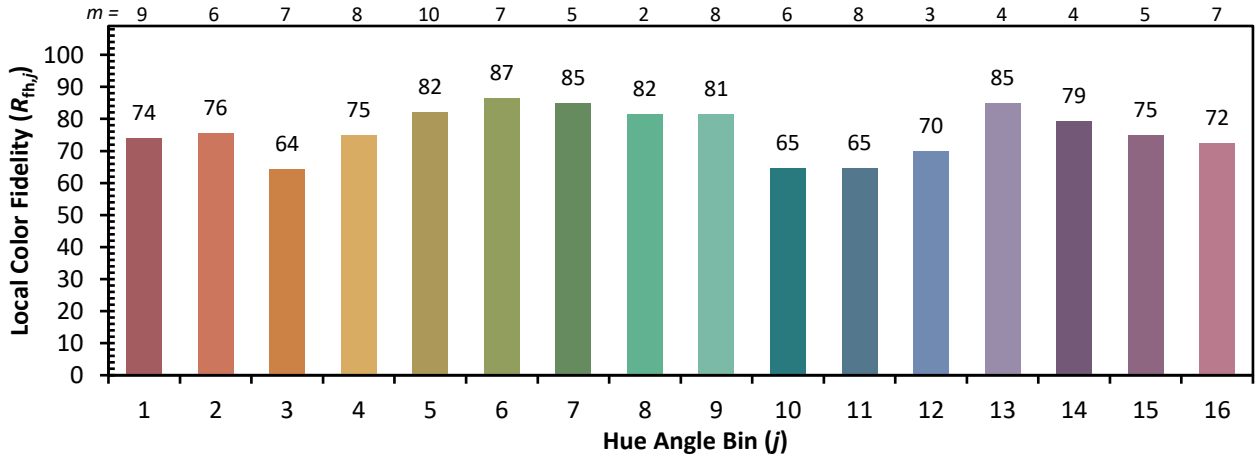
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Color Rendition by Hue-Angle Bin



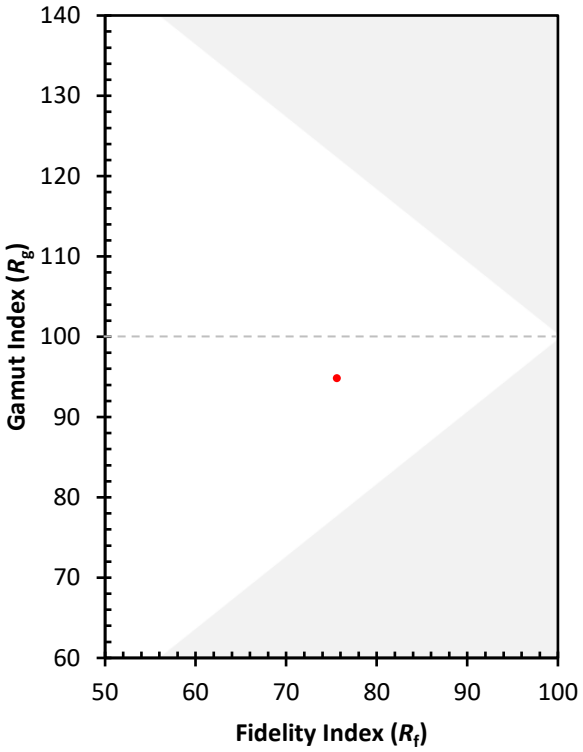


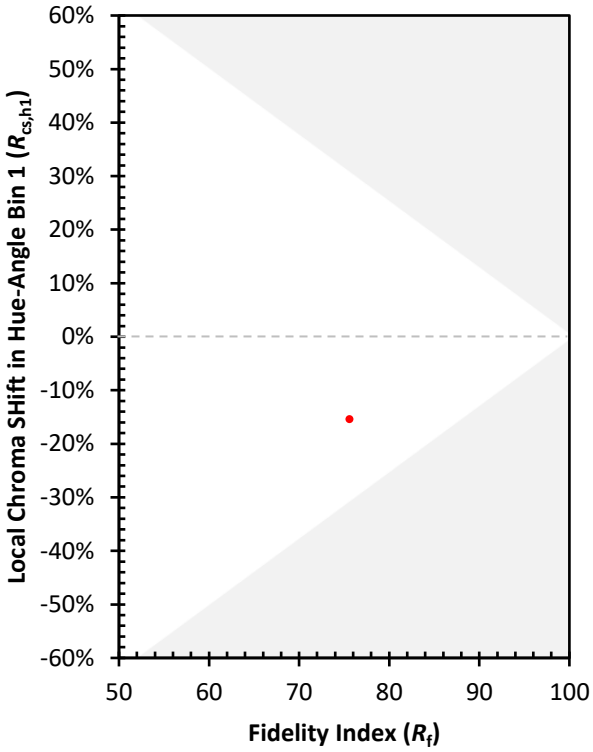


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Measure Comparisons





(END OF REPORT)