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: P821316

Luminaire Tested: **TT-D4-740-24VDC-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:	P821316
	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-D4-740-24VDC-RW-HSS
Description:	TOPTIER LED PARKING GARAGE LUMINAIRE
	4000K, 70 CRI LEDS AND RECTANGULAR DISTRIBUTION WITH HOUSE SIDE SHIELD
Light Source:	-
Ballast/Driver:	ELECTRONIC DRIVER

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	4777 lumens
Efficiency:	N/A
Efficacy:	83.8 lumens/watt
Luminous Opening:	Circular (Dia: 1.12' x H: 0')
IES Classification:	Type IV - Short
BUG Rating:	B2 - U2 - G3

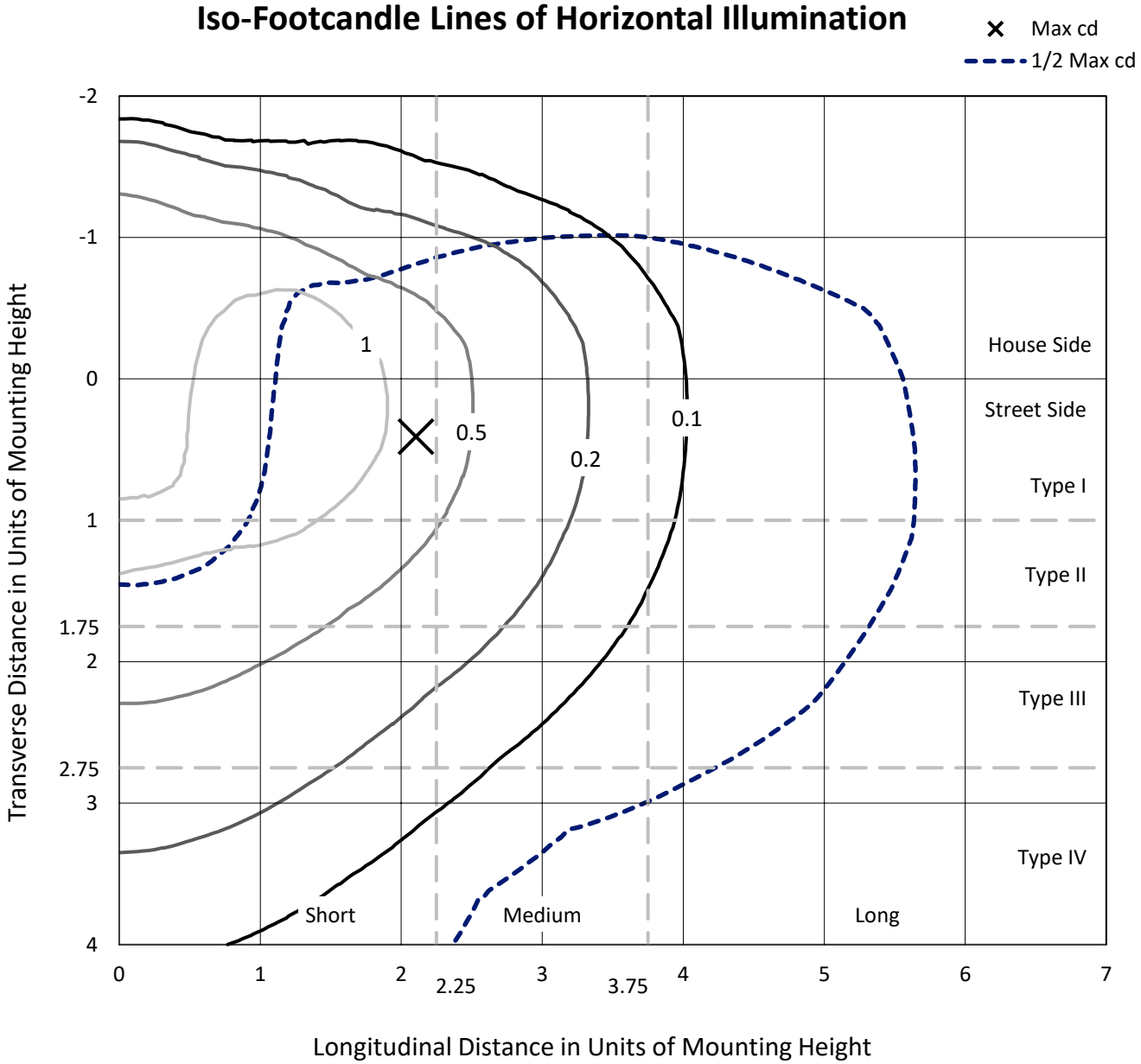
Input Watts (W):	57
Input Voltage (V):	NR
Input Current (Ain):	NR
Voltage Rise (V):	NR
Power Factor:	NR
Total Harmonic Distortion (THDi):	NR
Frequency (hertz):	60
Stabilization Time:	NR
Operation Time:	NR
Ambient Temperature (°C):	NR
Test Distance:	25 FT

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Iso-Footcandle Lines of Horizontal Illumination



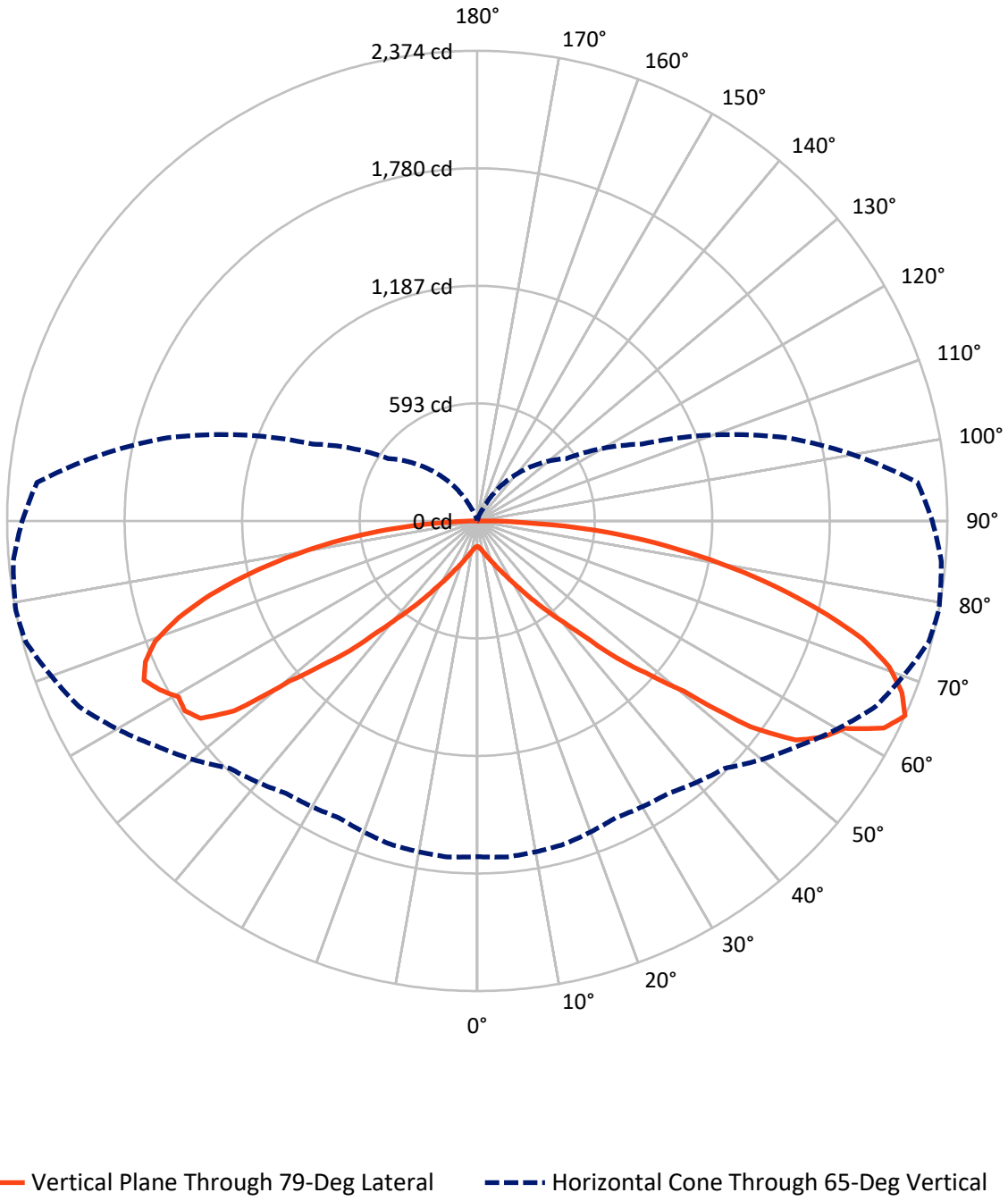
Based on 15 foot mounting height. Maximum calculated value = 1.7 fc
Type IV - Short - N/A

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Luminous Intensity Polar Plot



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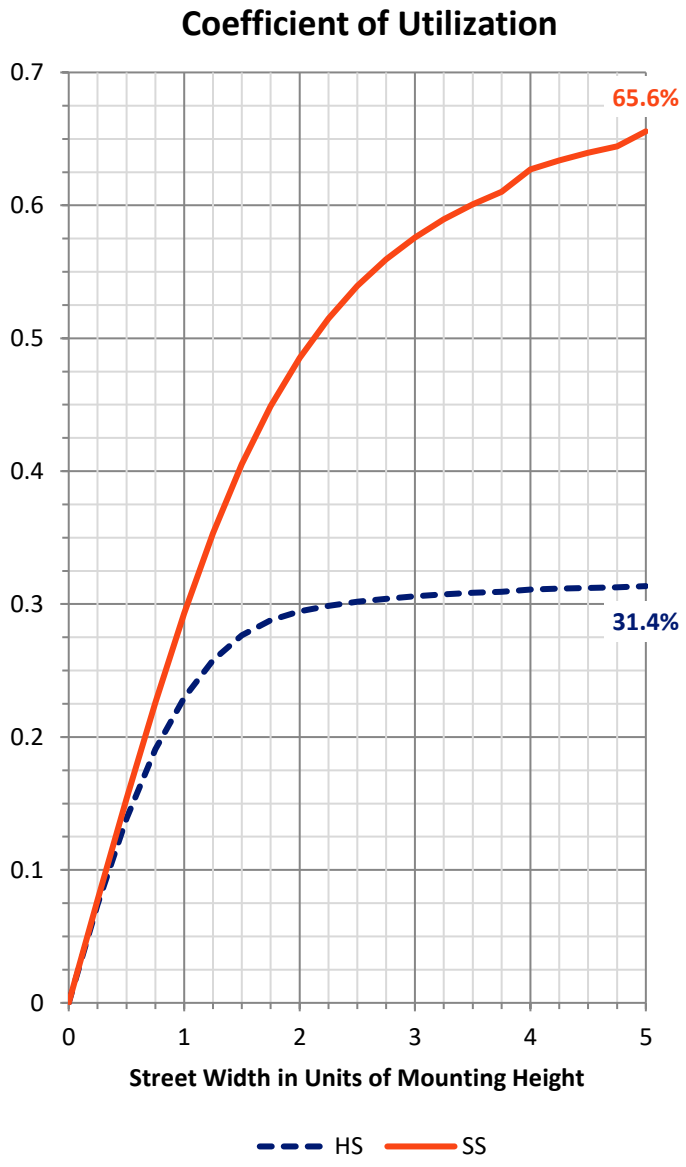
REPORT NUMBER: P821316
CATALOG NUMBER: TT-D4-740-24VDC-RW-HSS

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1508.5	1.9	1510.4
	% Fixture	31.6	0.0	31.6
Street Side	Lumens	3245.5	21.1	3266.6
	% Fixture	67.9	0.4	68.4
Total	Lumens	4754.0	23.0	4777.0
	% Fixture	99.5	0.5	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	13.6	0.3
10°-20°	51.5	1.1
20°-30°	118.7	2.5
30°-40°	254.3	5.3
40°-50°	544.6	11.4
50°-60°	1028.6	21.5
60°-70°	1278.3	26.8
70°-80°	1094.3	22.9
80°-90°	370.2	7.7
90°-100°	16.0	0.3
100°-110°	4.6	0.1
110°-120°	1.0	0.0
120°-130°	0.5	0.0
130°-140°	0.4	0.0
140°-150°	0.3	0.0
150°-160°	0.1	0.0
160°-170°	0.1	0.0
170°-180°	0.0	0.0
0°-90°	4754.0	99.5
0°-180°	4777.0	100.0



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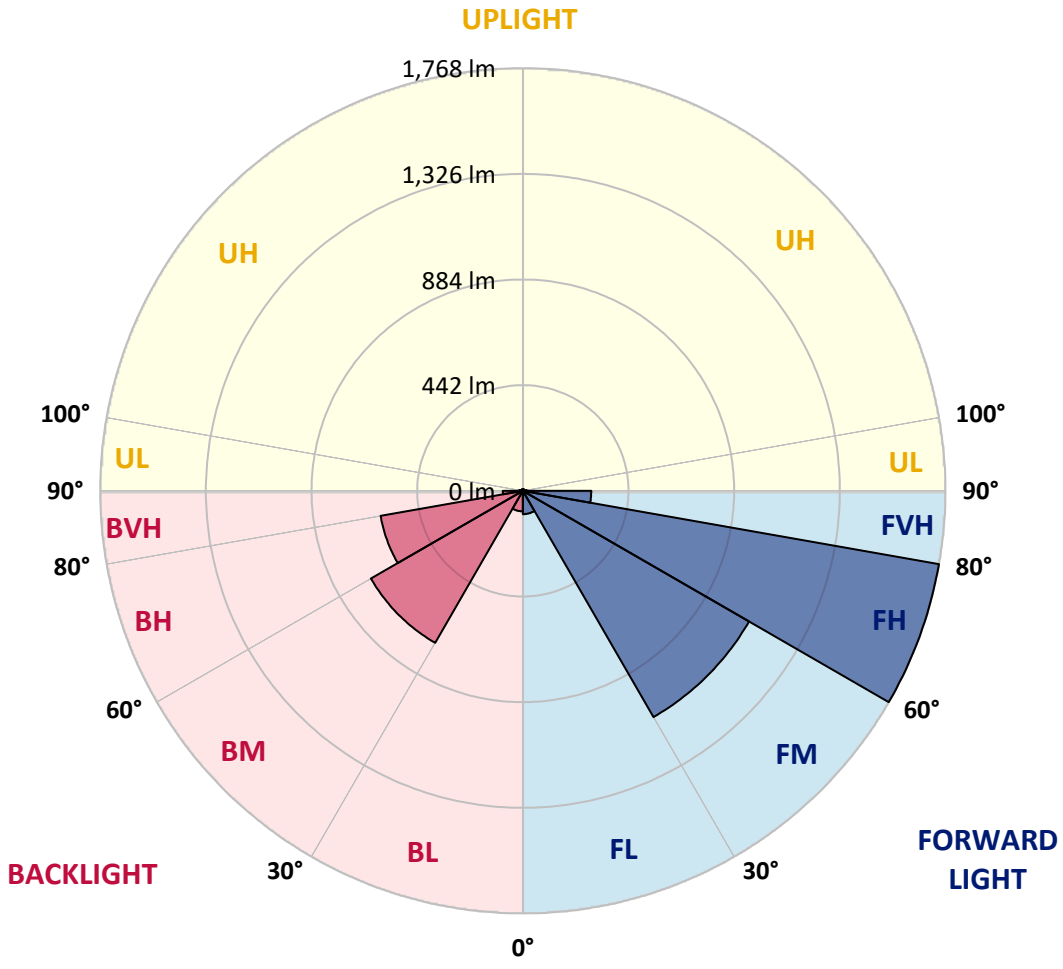
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	97.7	2.0			
FM	(30°-60°)	1093.2	22.9			
FH	(60°-80°)	1768.3	37.0			G1/1800
FVH	(80°-90°)	286.4	6.0			G3/500
BL	(0°-30°)	86.1	1.8	B0/110		
BM	(30°-60°)	734.3	15.4	B1/1000		
BH	(60°-80°)	604.4	12.7	B2/1000		G2/1000
BVH	(80°-90°)	83.8	1.8			G1/100
UL	(90°-100°)	16.0	0.3		U2/50	
UH	(100°-180°)	7.0	0.1		U1/10	

BUG Rating: B2-U2-G3
Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	79°	85°
0°	129.7	129.7	129.7	129.7	129.7	129.7	129.7	129.7	129.7	*129.7*	129.7
2.5°	136.9	136.9	136.9	135.7	135.7	135.7	134.5	133.3	132.1	*132.1*	132.1
5°	144.0	144.0	144.0	144.0	142.8	141.7	140.5	139.3	138.1	*138.1*	136.9
7.5°	153.6	152.4	153.6	152.4	152.4	151.2	150.0	148.8	146.4	*146.4*	145.2
10°	163.1	163.1	163.1	163.1	163.1	161.9	160.7	159.5	158.3	*157.1*	155.9
12.5°	175.0	175.0	175.0	173.8	175.0	173.8	172.6	172.6	171.4	*169.0*	169.0
15°	186.9	186.9	186.9	186.9	188.1	188.1	188.1	186.9	186.9	*185.7*	184.5
17.5°	201.2	200.0	201.2	201.2	202.4	203.5	204.7	205.9	205.9	*204.7*	204.7
20°	216.6	215.5	216.6	216.6	219.0	221.4	225.0	227.4	228.5	*226.2*	226.2
22.5°	233.3	232.1	234.5	234.5	238.1	241.6	247.6	250.0	253.5	*252.4*	252.4
25°	253.5	252.4	253.5	254.7	259.5	265.4	272.6	278.5	282.1	*282.1*	283.3
27.5°	276.2	276.2	277.3	278.5	283.3	292.8	303.5	314.2	322.6	*321.4*	322.6
30°	307.1	307.1	309.5	310.7	316.6	327.3	341.6	355.9	367.8	*367.8*	370.2
32.5°	341.6	340.4	344.0	345.2	351.2	365.4	385.7	408.3	423.8	*423.8*	426.1
35°	383.3	382.1	385.7	385.7	392.8	413.0	439.2	470.2	496.4	*497.6*	501.1
37.5°	435.7	433.3	433.3	436.9	445.2	471.4	507.1	549.9	577.3	*579.7*	585.6
40°	497.6	496.4	498.8	497.6	508.3	540.4	585.6	635.6	667.8	*673.7*	680.9
42.5°	573.7	576.1	572.6	572.6	585.6	622.5	676.1	734.4	792.8	*799.9*	803.5
45°	666.6	671.4	666.6	665.4	677.3	720.2	794.0	896.3	964.2	*988.0*	995.1
47.5°	778.5	780.9	774.9	772.5	785.6	840.4	935.6	1049.9	1129.6	*1147.5*	1166.5
50°	903.5	899.9	895.1	891.6	916.6	984.4	1095.1	1213.0	1349.8	*1352.2*	1359.4
52.5°	1032.0	1021.3	1022.5	1021.3	1055.8	1129.6	1277.2	1477.2	1685.5	*1728.4*	1733.1
55°	1160.6	1147.5	1146.3	1158.2	1207.0	1312.9	1498.6	1758.1	1927.2	*1953.3*	1949.8
57.5°	1289.1	1283.2	1280.8	1291.5	1362.9	1489.1	1698.6	1917.6	2061.7	*2059.3*	2034.3
60°	1422.5	1427.2	1418.9	1439.1	1512.9	1639.1	1791.5	2004.5	2137.9	*2127.1*	2102.1
62.5°	1559.3	1571.2	1562.9	1565.3	1612.9	1705.8	1855.7	2103.3	2287.8	*2303.3*	2274.7
65°	*1695.0*	*1703.4*	*1690.3*	*1653.4*	*1679.6*	*1766.5*	*1980.7*	*2218.8*	*2359.3*	*2373.5*	*2352.1*
67.5°	1809.3	1817.6	1772.4	1714.1	1717.7	1780.7	1968.8	2196.2	2321.2	*2311.6*	2277.1
70°	1906.9	1891.4	1817.6	1717.7	1676.0	1705.8	1883.1	2084.3	2211.7	*2206.9*	2166.4
72.5°	1939.1	1918.8	1793.8	1639.1	1557.0	1567.7	1740.3	1920.0	2023.6	*2031.9*	1983.1
75°	1887.9	1853.4	1681.9	1487.9	1382.0	1389.1	1536.7	1702.2	1785.5	*1776.0*	1737.9
77.5°	1703.4	1668.9	1483.2	1276.0	1172.5	1183.2	1299.9	1429.6	1498.6	*1495.1*	1468.9
80°	1414.1	1383.2	1220.1	1027.3	933.2	939.2	1028.5	1130.8	1184.4	*1196.3*	1182.0
82.5°	1045.1	1023.7	908.2	752.3	676.1	674.9	742.8	821.3	873.7	*898.7*	889.2
85°	646.4	635.6	571.4	470.2	416.6	415.4	455.9	514.2	561.8	*595.2*	573.7
87.5°	257.1	253.5	234.5	189.3	165.5	157.1	147.6	184.5	188.1	*222.6*	221.4
90°	63.1	61.9	60.7	57.1	51.2	44.0	35.7	26.2	16.7	*13.1*	7.1
92.5°	55.9	55.9	54.8	51.2	46.4	39.3	32.1	23.8	15.5	*11.9*	6.0
95°	45.2	45.2	44.0	41.7	36.9	32.1	25.0	19.0	11.9	*9.5*	4.8
97.5°	34.5	33.3	33.3	30.9	28.6	23.8	19.0	14.3	9.5	*7.1*	3.6
100°	25.0	25.0	23.8	22.6	20.2	17.9	14.3	10.7	6.0	*4.8*	2.4
102.5°	17.9	16.7	16.7	16.7	14.3	11.9	9.5	7.1	4.8	*3.6*	1.2
105°	11.9	10.7	10.7	10.7	9.5	8.3	6.0	4.8	2.4	*2.4*	1.2
107.5°	7.1	7.1	7.1	7.1	6.0	4.8	3.6	2.4	1.2	*1.2*	1.2
110°	3.6	3.6	3.6	4.8	3.6	3.6	2.4	1.2	1.2	*1.2*	1.2

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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	79°	85°
112.5°	2.4	2.4	2.4	2.4	2.4	2.4	1.2	1.2	1.2	*1.2*	1.2
115°	1.2	1.2	1.2	2.4	2.4	1.2	1.2	0.0	0.0	*1.2*	1.2
117.5°	0.0	0.0	1.2	1.2	1.2	1.2	0.0	0.0	0.0	*0.0*	1.2
120°	0.0	0.0	1.2	1.2	1.2	1.2	0.0	0.0	0.0	*0.0*	1.2
122.5°	0.0	0.0	1.2	1.2	1.2	1.2	0.0	0.0	0.0	*0.0*	1.2
125°	0.0	0.0	0.0	1.2	1.2	1.2	0.0	0.0	0.0	*0.0*	1.2
127.5°	0.0	0.0	0.0	1.2	1.2	1.2	0.0	0.0	0.0	*0.0*	1.2
130°	0.0	0.0	0.0	1.2	1.2	1.2	0.0	0.0	0.0	*0.0*	1.2
132.5°	0.0	0.0	0.0	1.2	1.2	1.2	0.0	0.0	0.0	*0.0*	1.2
135°	0.0	0.0	0.0	1.2	1.2	0.0	0.0	0.0	0.0	*0.0*	0.0
137.5°	0.0	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.0	*0.0*	0.0
140°	0.0	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.0	*0.0*	0.0
142.5°	0.0	0.0	0.0	0.0	1.2	1.2	0.0	0.0	0.0	*0.0*	0.0
145°	0.0	0.0	0.0	1.2	1.2	1.2	1.2	0.0	0.0	*0.0*	0.0
147.5°	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0	0.0	*0.0*	0.0
150°	0.0	0.0	0.0	0.0	1.2	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	1.2	0.0	0.0	0.0	0.0	*0.0*	0.0
160°	0.0	0.0	0.0	0.0	1.2	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	1.2	0.0	1.2	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°	129.7	129.7	129.7	129.7	129.7	129.7	129.7	129.7	129.7	129.7	129.7
2.5°	130.9	130.9	130.9	129.7	129.7	129.7	128.6	128.6	127.4	127.4	127.4
5°	135.7	135.7	134.5	134.5	133.3	132.1	132.1	130.9	130.9	129.7	129.7
7.5°	144.0	144.0	142.8	141.7	139.3	138.1	136.9	135.7	135.7	134.5	134.5
10°	154.7	154.7	152.4	150.0	147.6	145.2	144.0	141.7	140.5	140.5	140.5
12.5°	167.8	166.6	164.3	160.7	158.3	154.7	152.4	150.0	147.6	147.6	147.6
15°	183.3	183.3	178.6	175.0	170.2	165.5	161.9	158.3	155.9	154.7	154.7
17.5°	202.4	202.4	196.4	190.5	184.5	178.6	173.8	169.0	166.6	165.5	165.5
20°	223.8	223.8	217.8	210.7	202.4	194.0	186.9	180.9	177.4	176.2	176.2
22.5°	250.0	250.0	241.6	232.1	221.4	209.5	200.0	192.8	189.3	186.9	186.9
25°	279.7	277.3	269.0	257.1	241.6	227.4	214.3	207.1	202.4	198.8	200.0
27.5°	320.2	316.6	305.9	285.7	266.6	247.6	232.1	222.6	216.6	214.3	215.5
30°	366.6	363.1	347.6	325.0	296.4	271.4	252.4	241.6	235.7	232.1	233.3
32.5°	422.6	417.8	398.8	367.8	334.5	298.8	275.0	261.9	255.9	252.4	251.2
35°	496.4	490.4	466.6	423.8	377.3	334.5	301.2	284.5	278.5	275.0	276.2
37.5°	579.7	571.4	539.2	486.8	428.5	373.8	335.7	314.2	307.1	301.2	301.2
40°	674.9	665.4	623.7	554.7	484.5	416.6	367.8	344.0	335.7	335.7	335.7
42.5°	794.0	784.4	736.8	635.6	542.8	463.0	404.7	377.3	369.0	371.4	371.4
45°	978.5	965.4	889.2	755.9	619.0	510.7	442.8	411.9	405.9	411.9	411.9
47.5°	1147.5	1130.8	1018.9	867.8	694.0	558.3	480.9	445.2	442.8	455.9	455.9
50°	1336.8	1315.3	1197.5	958.2	754.7	610.6	515.4	472.6	473.8	492.8	498.8
52.5°	1703.4	1680.8	1477.2	1122.5	820.1	629.7	529.7	478.5	478.5	499.9	508.3
55°	1921.2	1874.8	1609.3	1229.6	847.5	652.3	523.7	454.7	452.3	476.1	483.3
57.5°	1992.6	1945.0	1636.7	1198.7	829.7	623.7	489.2	390.4	385.7	416.6	414.2
60°	2051.0	1987.9	1592.7	1095.1	728.5	563.0	422.6	290.4	270.2	297.6	296.4
62.5°	2215.2	2147.4	1595.1	973.7	609.5	470.2	317.8	163.1	121.4	142.8	133.3
65°	*2297.4*	*2230.7*	*1620.1*	*916.6*	*548.7*	*389.2*	*227.4*	*66.7*	*4.8*	*4.8*	*2.4*
67.5°	2227.1	2167.6	1587.9	902.3	540.4	386.9	230.9	65.5	0.0	0.0	0.0
70°	2124.8	2067.6	1514.1	852.3	513.0	372.6	226.2	65.5	0.0	0.0	0.0
72.5°	1945.0	1886.7	1386.7	780.9	471.4	341.6	209.5	61.9	0.0	0.0	0.0
75°	1708.1	1664.1	1224.9	688.0	415.4	301.2	185.7	54.8	0.0	0.0	0.0
77.5°	1446.3	1393.9	1027.3	572.6	347.6	250.0	157.1	45.2	0.0	0.0	0.0
80°	1160.6	1122.5	809.4	448.8	269.0	195.2	122.6	34.5	0.0	0.0	0.0
82.5°	863.0	830.9	598.7	321.4	191.6	135.7	84.5	22.6	0.0	0.0	0.0
85°	566.6	558.3	384.5	195.2	114.3	75.0	45.2	10.7	0.0	0.0	0.0
87.5°	204.7	211.9	140.5	55.9	30.9	13.1	6.0	1.2	0.0	0.0	0.0
90°	1.2	1.2	1.2	1.2	1.2	1.2	0.0	0.0	0.0	0.0	0.0
92.5°	1.2	1.2	1.2	1.2	1.2	1.2	0.0	0.0	0.0	0.0	0.0
95°	1.2	1.2	1.2	1.2	1.2	1.2	0.0	0.0	0.0	0.0	0.0
97.5°	1.2	1.2	1.2	1.2	1.2	1.2	0.0	0.0	0.0	0.0	0.0
100°	1.2	1.2	1.2	1.2	1.2	1.2	0.0	0.0	0.0	0.0	0.0
102.5°	1.2	1.2	1.2	1.2	1.2	1.2	0.0	0.0	0.0	0.0	0.0
105°	1.2	1.2	1.2	1.2	1.2	1.2	0.0	0.0	0.0	0.0	0.0
107.5°	1.2	1.2	1.2	1.2	1.2	1.2	0.0	0.0	0.0	0.0	0.0
110°	1.2	1.2	1.2	1.2	1.2	1.2	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: P821316
CATALOG NUMBER: TT-D4-740-24VDC-RW-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
112.5°	1.2	1.2	1.2	1.2	1.2	1.2	0.0	0.0	0.0	0.0	0.0
115°	1.2	1.2	1.2	1.2	1.2	1.2	0.0	0.0	0.0	0.0	0.0
117.5°	1.2	1.2	1.2	1.2	1.2	1.2	0.0	0.0	0.0	0.0	0.0
120°	1.2	1.2	1.2	1.2	1.2	1.2	0.0	0.0	0.0	0.0	0.0
122.5°	1.2	1.2	1.2	1.2	1.2	1.2	0.0	0.0	0.0	0.0	0.0
125°	1.2	1.2	1.2	1.2	1.2	1.2	0.0	0.0	0.0	0.0	0.0
127.5°	1.2	1.2	1.2	1.2	1.2	1.2	0.0	0.0	0.0	0.0	0.0
130°	1.2	1.2	1.2	1.2	1.2	1.2	0.0	0.0	0.0	0.0	0.0
132.5°	1.2	1.2	1.2	1.2	1.2	1.2	0.0	0.0	0.0	0.0	0.0
135°	1.2	1.2	1.2	1.2	1.2	1.2	0.0	0.0	0.0	0.0	0.0
137.5°	0.0	1.2	1.2	1.2	1.2	0.0	0.0	0.0	0.0	0.0	0.0
140°	0.0	1.2	1.2	1.2	1.2	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	0.0	0.0	1.2	1.2	1.2	0.0	0.0	0.0	0.0	0.0	0.0
145°	1.2	1.2	1.2	1.2	1.2	1.2	0.0	0.0	0.0	0.0	0.0
147.5°	0.0	1.2	1.2	1.2	1.2	1.2	0.0	0.0	0.0	0.0	0.0
150°	0.0	1.2	1.2	1.2	1.2	1.2	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	1.2	1.2	1.2	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	1.2	1.2	1.2	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	1.2	1.2	1.2	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	1.2	1.2	1.2	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	1.2	1.2	1.2	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	1.2	1.2	1.2	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	1.2	1.2	1.2	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	1.2	1.2	1.2	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	1.2	1.2	1.2	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	1.2	1.2	1.2	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	1.2	1.2	1.2	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

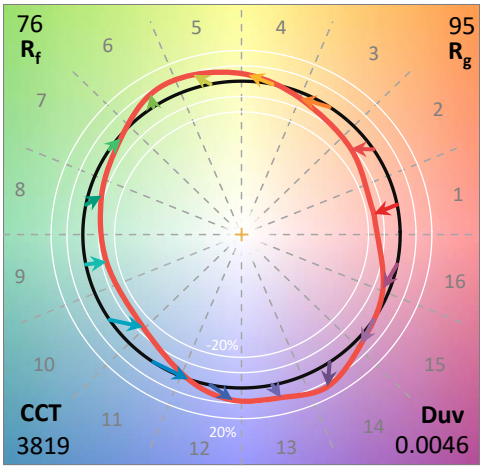
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Version: v7.04

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

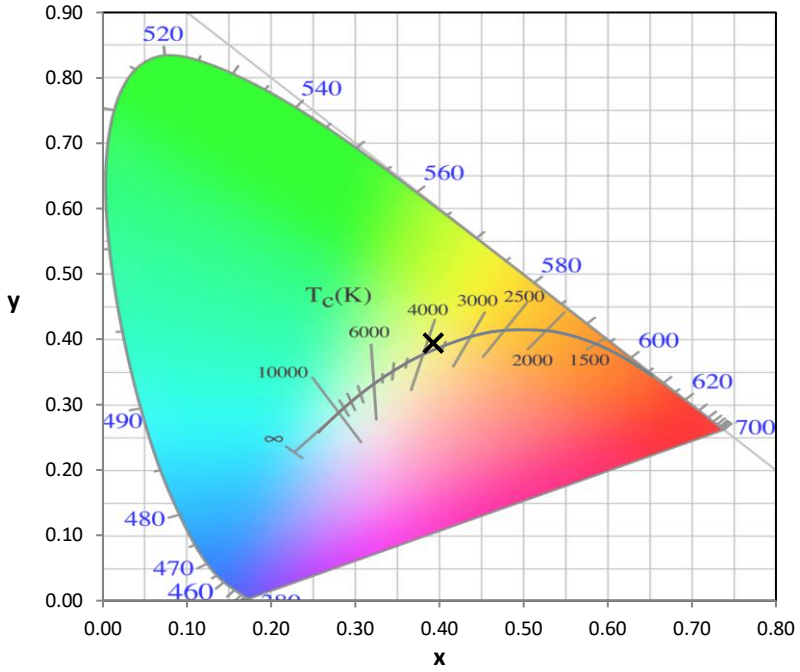
Stabilization Time:	30M
Operation Time:	1H 30M
Sphere Temperature (°C):	25.2

REPORT NUMBER: SP1-2407-176-5

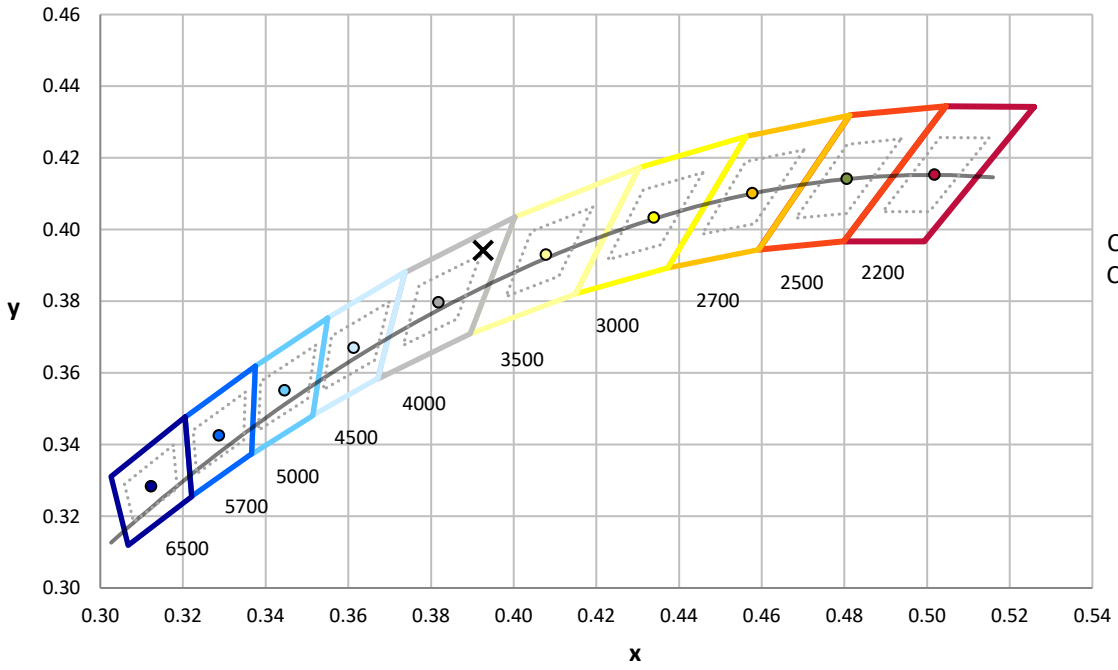
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

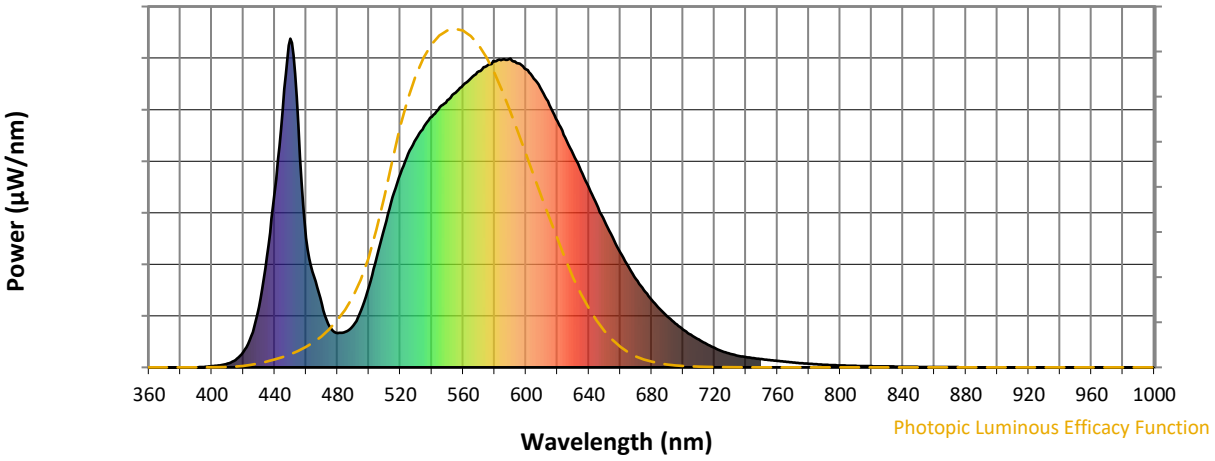


CCT = 3819K
CIE x = 0.3926
CIE y = 0.3942
Duv = 0.0046

Point lies inside the ANSI 4000K 7-step quadrangle

REPORT NUMBER: SP1-2407-176-5

Photopic Flux vs. Wavelength

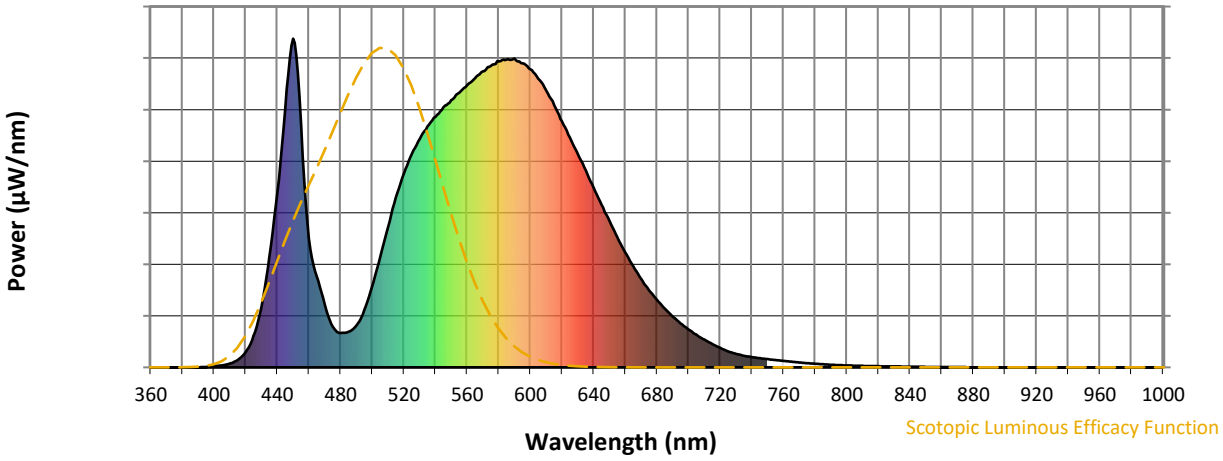


Photopic Lumens: NR

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

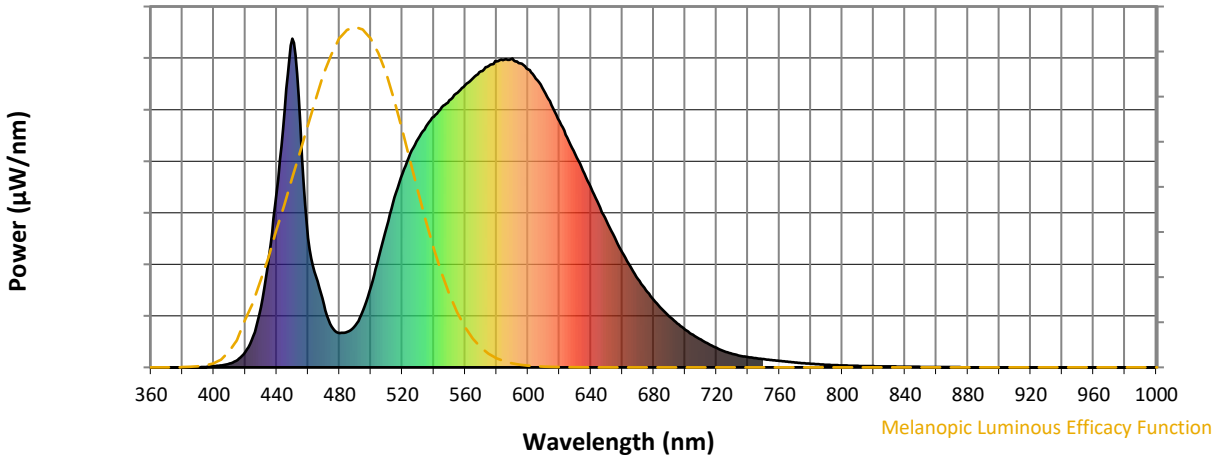


Scotopic Lumens: NR **S/P: 1.45**

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			

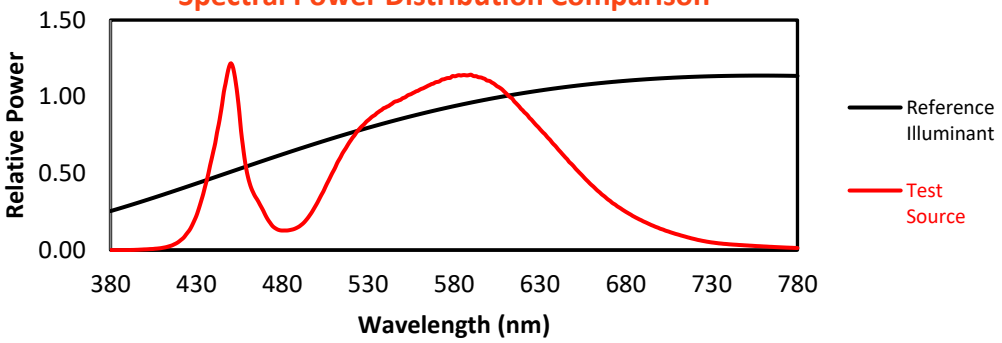
REPORT NUMBER: SP1-2407-176-5

TM-30-18

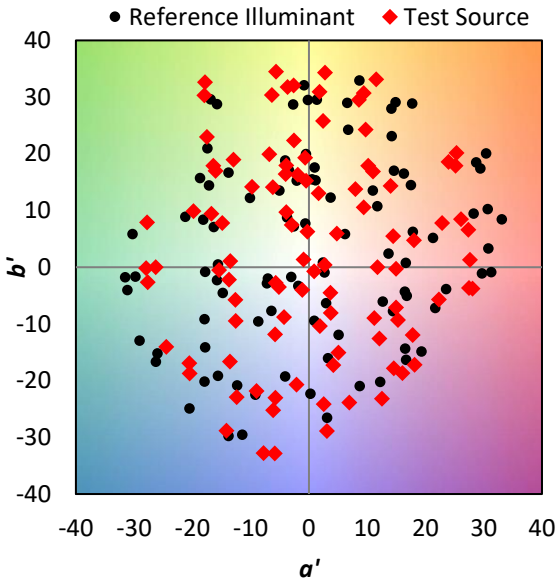
Summary

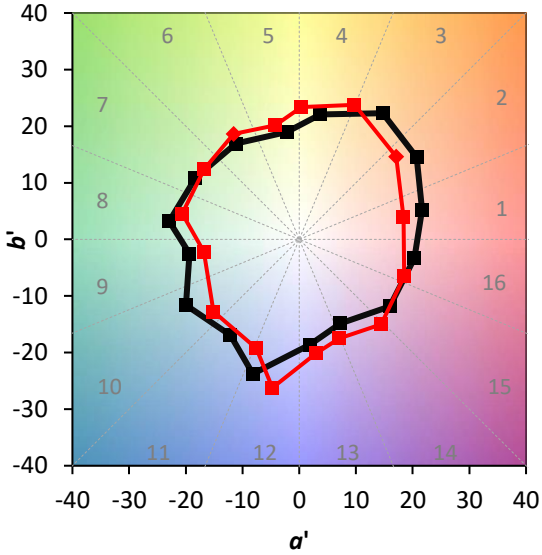
R_f = 75.6
R_g = 94.8
CIE R_a = 72.9
R_9 = -21.5

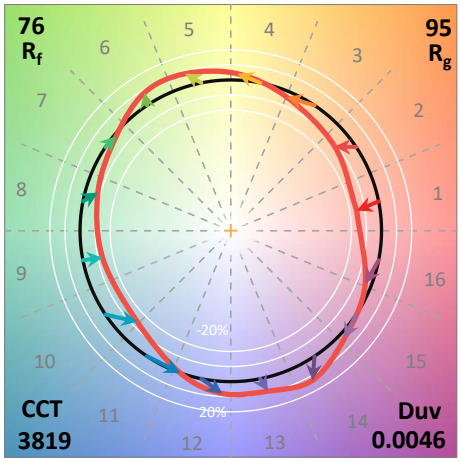
Spectral Power Distribution Comparison

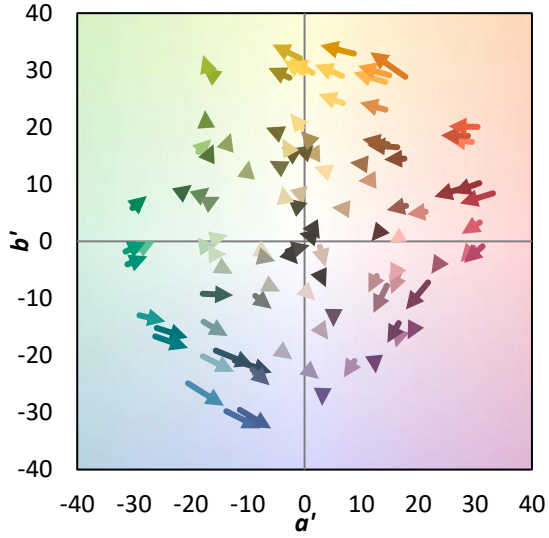


Color Vector Graphics







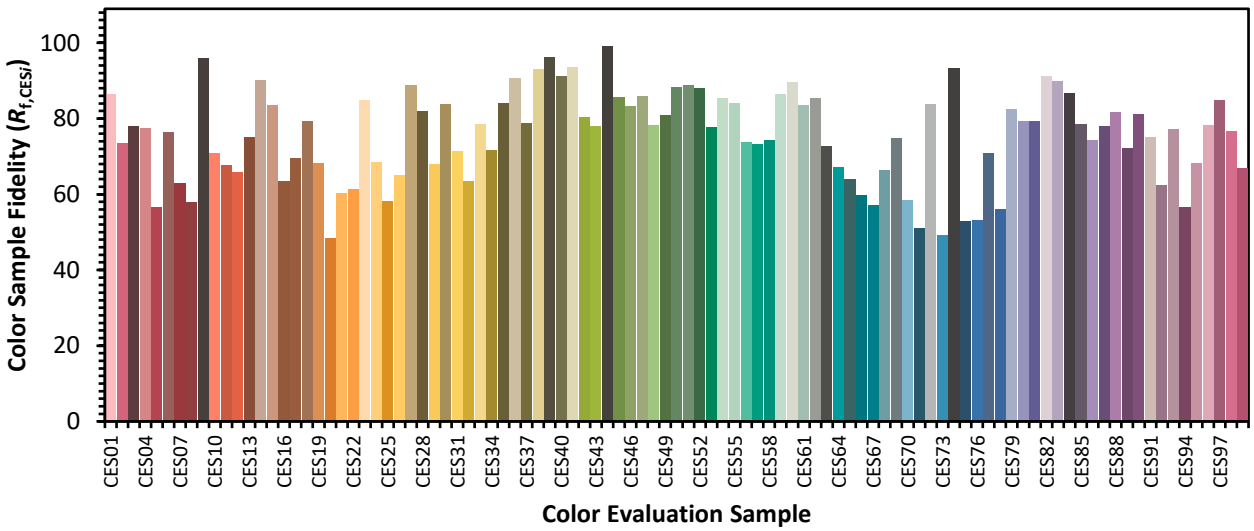


REPORT NUMBER: SP1-2407-176-5

TM-30-18

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

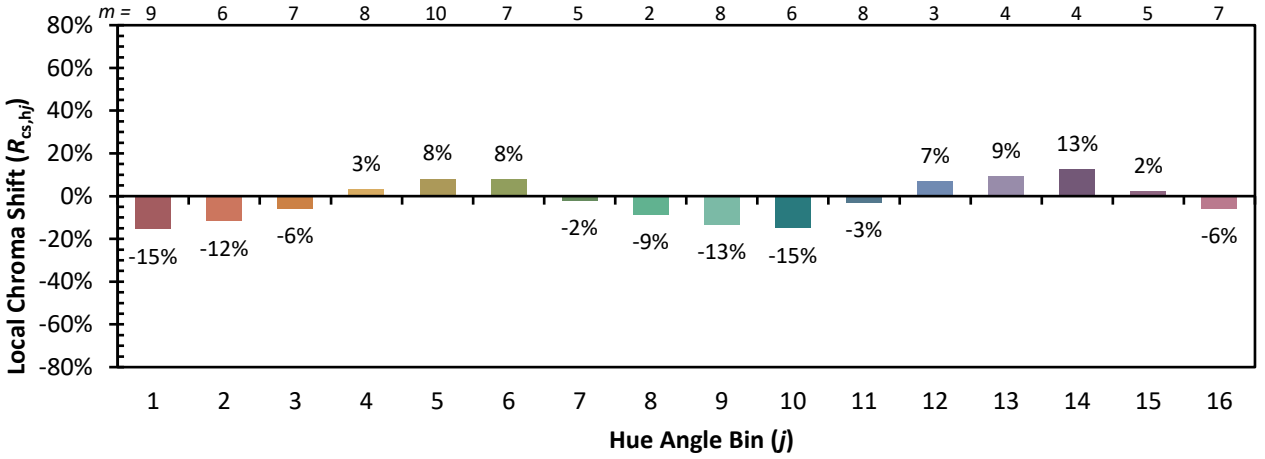
CES01 = 85	CES26 = 65	CES51 = 89	CES76 = 53
CES02 = 61	CES27 = 89	CES52 = 88	CES77 = 71
CES03 = 30	CES28 = 82	CES53 = 78	CES78 = 56
CES04 = 70	CES29 = 68	CES54 = 85	CES79 = 83
CES05 = 48	CES30 = 84	CES55 = 84	CES80 = 79
CES06 = 50	CES31 = 71	CES56 = 74	CES81 = 79
CES07 = 40	CES32 = 63	CES57 = 73	CES82 = 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	

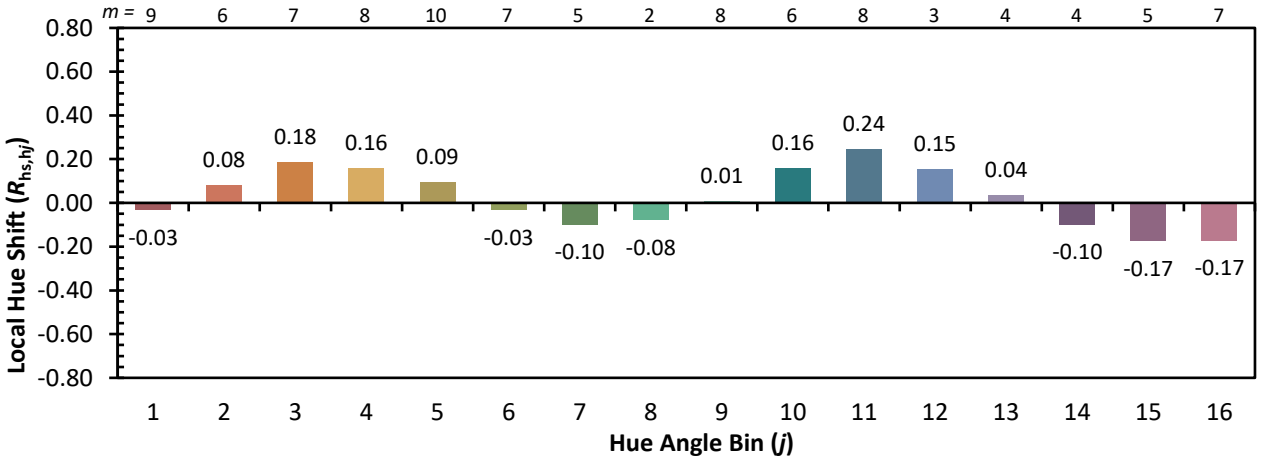


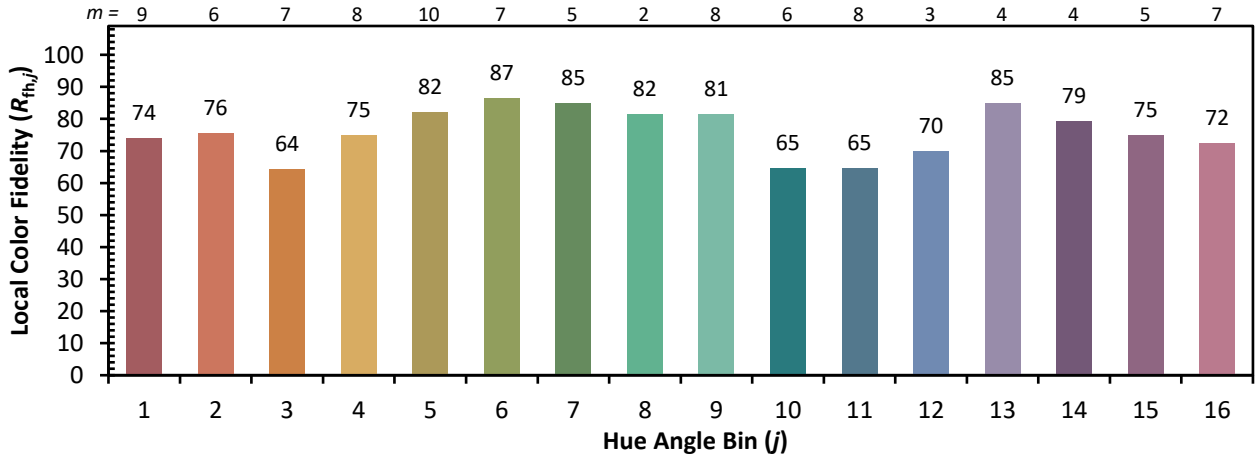
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Color Rendition by Hue-Angle Bin



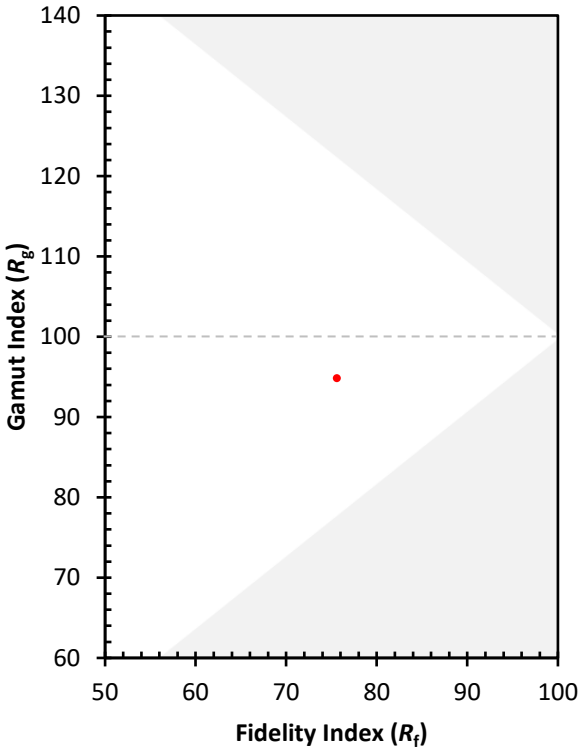


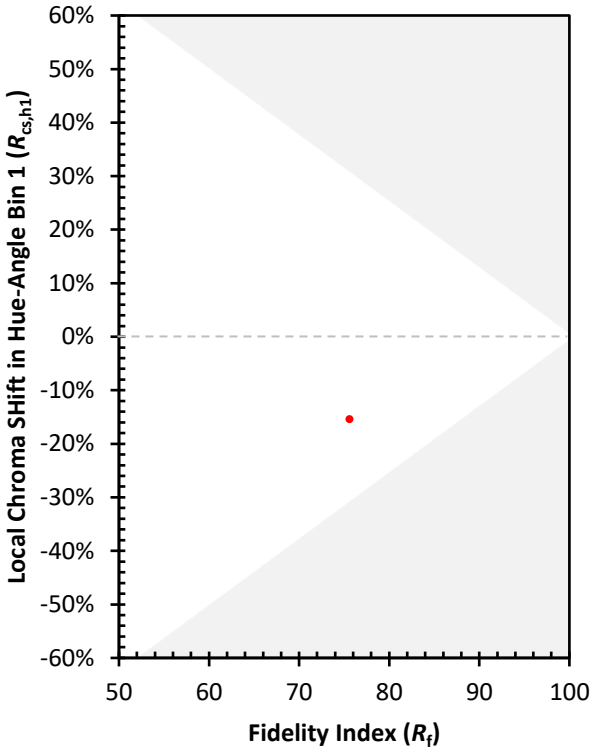


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Measure Comparisons





(END OF REPORT)