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

Scaled data based on original data using

LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

Brand: McGRAW-EDISON

Report Number: P637495

Luminaire Tested: GWS-SA4C-830-U-SLR-W-HSS

Issue Date: 1/10/2023

Report Generated By 670246102 / DESKTOP-G35701P

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Scaled Data Report

Test Information

Test Method:	LM-79-2019
Report Number:	P637495
	TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-44)
Test Lab:	COOPER LIGHTING SOLUTIONS
Issue Date:	1/10/2023
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	McGRAW-EDISON
Catalog Number:	GWS-SA4C-830-U-SLR-W-HSS
Description:	GALLEON WALL SLIM LUMINAIRE. (4) LIGHTSQUARES WITH 16 LEDS EACH AND SPILL LIGHT ELIMINATOR RIGHT OPTICS WITH HOUSE SIDE SHIELD
Light Source:	(64) 3000K CCT, 80 CRI LEDS
Ballast/Driver:	-

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	9569.8 lumens
Efficiency:	N/A
Efficacy:	74.5 lumens/watt
Luminous Opening:	Rectangular (W 1' x L: 1' x H: 0')
IES Classification:	Type IV - Short
BUG Rating:	B1 - U0 - G2

Input Watts (W):	128.5
Input Voltage (V):	120
Input Current (Ain):	NR
Voltage Rise (V):	NR
Power Factor:	NR
Total Harmonic Distortion (THDi):	NR
Frequency (hertz):	0
Stabilization Time:	NR
Operation Time:	NR
Ambient Temperature (°C):	NR
Test Distance:	28.75 FT

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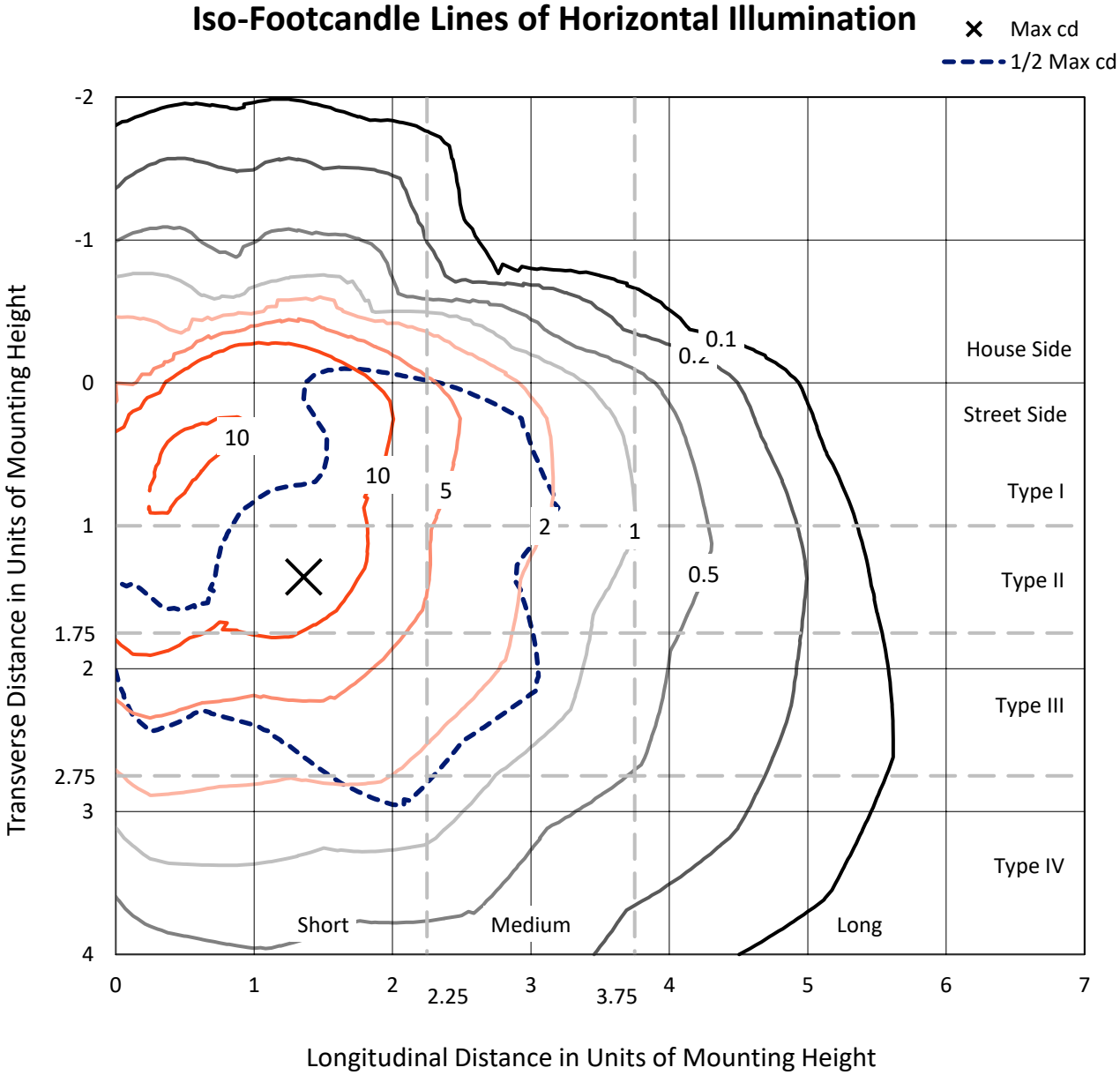
Iso-Footcandle Lines of Horizontal Illumination



Based on 10 foot mounting height. Maximum calculated value = 19.4 fc
Type IV - Short - N/A

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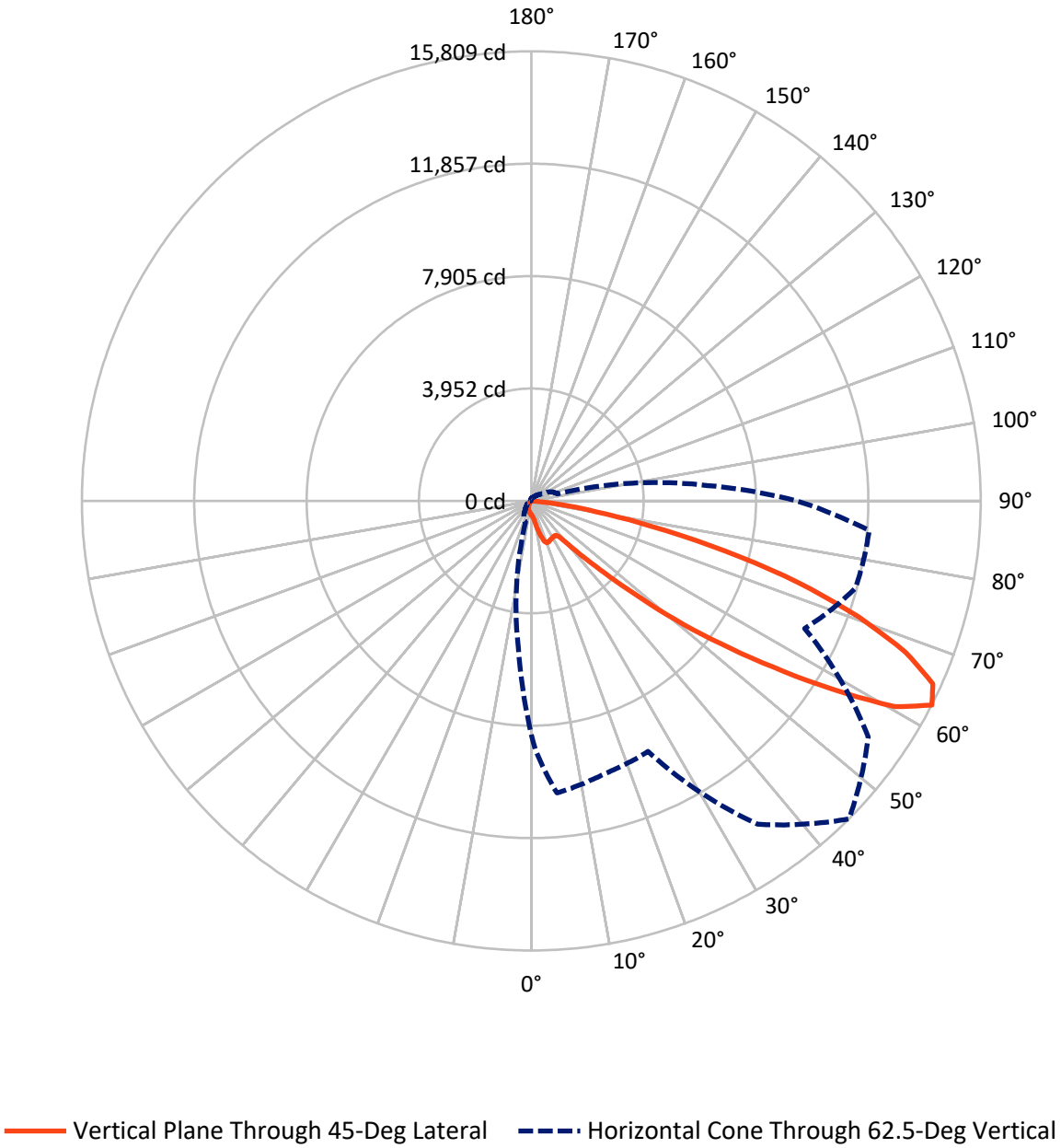
Luminous Intensity Polar Plot



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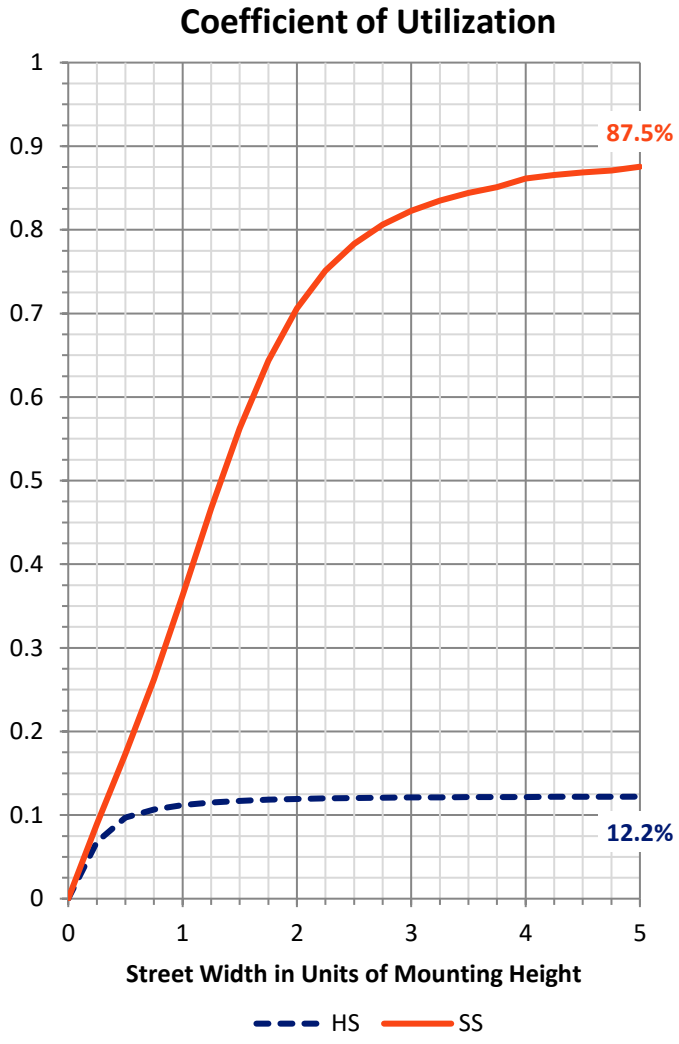
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1180.9	0.0	1180.9
	% Fixture	12.3	0.0	12.3
Street Side	Lumens	8388.9	0.0	8388.9
	% Fixture	87.7	0.0	87.7
Total	Lumens	9569.8	0.0	9569.8
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	44.1	0.5
10°-20°	166.8	1.7
20°-30°	362.7	3.8
30°-40°	595.3	6.2
40°-50°	1094.4	11.4
50°-60°	2350.2	24.6
60°-70°	3156.7	33.0
70°-80°	1643.7	17.2
80°-90°	155.8	1.6
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	9569.8	100.0
0°-180°	9569.8	100.0



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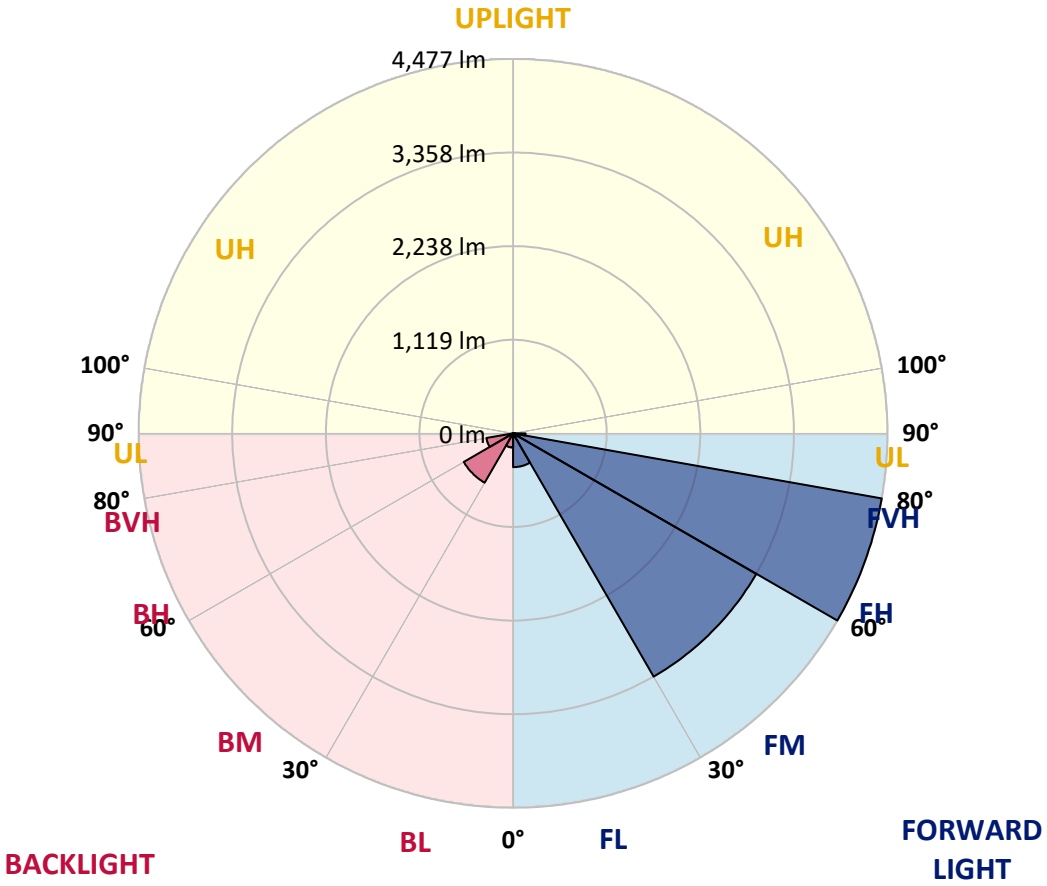
LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	404.3	4.2			
FM	(30°-60°)	3358.9	35.1			
FH	(60°-80°)	4476.8	46.8			G2/5000
FVH	(80°-90°)	148.9	1.6			G2/225
BL	(0°-30°)	169.4	1.8	B1/500		
BM	(30°-60°)	681.0	7.1	B1/1000		
BH	(60°-80°)	323.6	3.4	B1/500		G1/500
BVH	(80°-90°)	6.9	0.1			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2
Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	497.4	497.4	497.4	497.4	497.4	497.4	*497.4*	497.4	497.4	497.4	497.4
2.5°	507.4	509.6	511.8	519.5	525.1	529.5	*530.6*	527.3	519.5	511.8	500.7
5°	491.9	494.1	501.9	522.9	543.9	560.4	*566.0*	562.6	543.9	519.5	494.1
7.5°	490.8	495.2	514.0	558.2	603.5	637.8	*646.7*	638.9	603.5	554.9	503.0
10°	530.6	538.3	566.0	645.6	728.5	789.3	*813.6*	780.4	724.0	635.6	550.5
12.5°	634.5	647.8	700.8	816.9	945.1	1025.8	*1059.0*	1018.1	929.6	801.4	666.6
15°	798.1	818.0	897.6	1071.1	1222.6	1294.4	*1305.5*	1282.3	1179.5	1038.0	856.7
17.5°	1029.1	1057.9	1181.7	1358.5	1468.0	1493.4	*1490.1*	1465.8	1390.6	1293.3	1122.0
20°	1305.5	1339.7	1461.3	1607.2	1618.3	1588.5	*1571.9*	1557.5	1532.1	1515.5	1381.7
22.5°	1584.0	1626.0	1753.2	1789.6	1690.2	1603.9	*1563.0*	1574.1	1611.7	1693.5	1639.3
25°	1861.5	1901.3	2020.7	1922.3	1723.3	1579.6	*1527.7*	1554.2	1643.7	1820.6	1890.2
27.5°	2185.4	2215.2	2286.0	2012.9	1728.8	1559.7	*1508.9*	1549.8	1659.2	1900.2	2165.5
30°	2522.5	2540.2	2505.9	2037.2	1710.1	1529.9	*1490.1*	1549.8	1685.7	1953.2	2372.2
32.5°	2770.1	2773.4	2661.8	2039.5	1700.1	1505.6	*1472.4*	1543.1	1711.2	1997.5	2572.3
35°	3025.5	3008.9	2811.0	2072.6	1726.6	1514.4	*1485.7*	1561.9	1751.0	2049.4	2748.0
37.5°	3284.1	3254.3	2977.9	2126.8	1795.2	1610.6	*1592.9*	1658.1	1815.1	2121.3	2941.5
40°	3549.4	3508.5	3151.5	2208.6	1947.7	1937.8	*1998.6*	1990.8	1990.8	2213.0	3140.4
42.5°	3873.3	3825.8	3407.9	2439.6	2303.7	2525.8	*2691.6*	2588.8	2398.7	2424.1	3399.1
45°	4301.1	4260.2	3852.3	2881.8	2861.9	3372.6	*3595.9*	3392.5	2919.4	2911.6	3831.3
47.5°	4985.3	4977.6	4560.9	3394.7	3545.0	4450.3	*4881.4*	4490.1	3513.0	3427.8	4649.3
50°	5947.0	5923.8	5444.1	3996.0	4357.5	5785.7	*6555.0*	5902.8	4230.4	4030.3	5744.8
52.5°	7030.3	7054.7	6681.0	4652.6	5220.8	7271.3	*8342.4*	7521.1	5009.7	4796.3	7123.2
55°	8050.6	8189.9	8091.5	5420.9	6064.2	8911.7	*10305.6*	9296.4	5974.7	5798.9	8668.5
57.5°	8848.7	9241.1	9930.9	6537.3	7055.8	10830.7	*12497.6*	11220.9	7101.1	7427.2	10772.1
60°	8892.9	9412.5	11014.2	8873.0	8331.4	12476.6	*14686.3*	13101.2	8871.9	10191.8	12420.3
62.5°	*8226.4*	*8783.5*	*10308.9*	*9934.2*	*9720.9*	*13877.2*	*15809.4*	*14471.9*	*10614.0*	*11811.2*	*11931.7*
65°	7463.7	8026.3	9521.9	8730.4	9559.5	13817.5	*15524.2*	14503.9	10772.1	10710.2	11057.3
67.5°	6310.7	6815.9	8170.0	7727.8	8811.1	13150.9	*14206.6*	13589.8	9924.3	10017.1	10171.9
70°	4606.2	5092.6	6349.4	6371.5	7694.7	11949.4	*12206.9*	12121.8	9139.4	9237.8	8795.7
72.5°	3327.2	3737.4	4821.7	5225.2	6142.7	10020.4	*9842.5*	10170.8	7841.7	8227.5	7064.6
75°	2392.1	2699.4	3537.3	4545.4	4869.3	7441.5	*7045.8*	7877.1	6291.9	7084.5	5311.4
77.5°	970.5	1078.9	1391.7	3062.0	3200.1	5006.3	*4313.3*	5721.5	4485.7	4654.8	2574.5
80°	39.8	44.2	57.5	1580.7	2194.2	2816.6	*2308.1*	3058.6	2962.5	1874.8	608.0
82.5°	4.4	4.4	9.9	455.4	960.6	1554.2	*1087.7*	1762.0	1500.0	794.8	276.3
85°	1.1	1.1	2.2	52.0	225.5	248.7	*147.0*	540.5	697.5	325.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	*0.0*	5.5	9.9	11.1	0.0
90°	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°	497.4	497.4	497.4	497.4	497.4	497.4	497.4	497.4	497.4	497.4	497.4
2.5°	500.7	495.2	488.6	482.0	478.6	469.8	466.5	464.3	462.1	463.2	463.2
5°	484.2	472.0	457.6	443.3	435.5	426.7	422.3	420.1	421.2	425.6	425.6
7.5°	482.0	458.7	427.8	409.0	400.2	393.5	389.1	386.9	388.0	393.5	395.7
10°	518.4	477.5	422.3	390.2	380.3	373.6	369.2	365.9	363.7	368.1	369.2
12.5°	596.9	540.5	448.8	388.0	370.3	361.5	358.1	351.5	348.2	350.4	351.5
15°	759.4	662.1	501.9	396.8	361.5	351.5	346.0	340.5	334.9	333.8	334.9
17.5°	971.6	832.4	582.5	417.8	354.8	342.7	334.9	327.2	319.5	318.4	317.2
20°	1234.7	1041.3	695.3	451.0	349.3	334.9	323.9	312.8	302.9	299.6	299.6
22.5°	1474.6	1293.3	840.1	491.9	341.6	323.9	310.6	297.4	286.3	280.8	279.7
25°	1767.5	1560.8	1013.7	539.4	330.5	309.5	295.1	281.9	270.8	264.2	262.0
27.5°	2062.7	1842.7	1210.4	601.3	317.2	295.1	281.9	269.7	257.6	249.8	247.6
30°	2349.0	2146.7	1431.5	678.7	307.3	280.8	269.7	257.6	246.5	234.3	231.0
32.5°	2656.3	2457.3	1679.1	764.9	299.6	270.8	258.7	247.6	233.2	222.2	216.7
35°	2952.5	2777.9	1952.1	848.9	291.8	262.0	248.7	237.7	222.2	210.0	202.3
37.5°	3251.0	3104.0	2237.3	899.8	280.8	249.8	237.7	228.8	211.1	196.8	187.9
40°	3567.1	3441.1	2545.7	878.8	270.8	236.6	229.9	220.0	200.1	183.5	172.4
42.5°	3914.2	3762.8	2859.7	798.1	262.0	225.5	218.9	208.9	190.1	170.2	155.9
45°	4350.8	4115.4	3117.2	676.5	266.4	214.4	201.2	199.0	181.3	155.9	138.2
47.5°	5101.4	4657.0	3317.3	598.0	296.2	202.3	186.8	192.3	173.5	141.5	121.6
50°	6249.9	5554.6	3504.1	592.5	341.6	196.8	173.5	187.9	165.8	127.1	107.2
52.5°	7344.3	6466.6	3623.5	641.1	381.4	211.1	160.3	182.4	160.3	117.2	97.3
55°	8391.1	6992.8	3410.2	676.5	418.9	254.2	150.3	173.5	153.7	111.6	94.0
57.5°	9519.7	7227.1	2685.0	748.4	445.5	290.7	152.5	160.3	144.8	108.3	92.9
60°	9856.8	6927.5	1620.5	842.3	431.1	301.8	169.1	142.6	132.6	101.7	89.5
62.5°	*9332.9*	*6216.8*	*956.2*	*767.1*	*418.9*	*285.2*	*193.4*	*131.5*	*120.5*	*92.9*	*82.9*
65°	8549.2	5251.7	623.4	647.8	444.4	254.2	205.6	126.0	109.4	84.0	73.0
67.5°	7653.8	4230.4	436.6	382.5	410.1	228.8	173.5	124.9	98.4	70.7	59.7
70°	6446.7	3168.1	307.3	253.1	341.6	203.4	134.9	121.6	86.2	57.5	46.4
72.5°	4980.9	1983.1	228.8	163.6	243.2	165.8	107.2	102.8	69.6	47.5	35.4
75°	3673.2	1130.8	161.4	118.3	160.3	126.0	79.6	73.0	59.7	45.3	32.1
77.5°	1917.9	566.0	100.6	90.6	91.7	78.5	57.5	53.1	55.3	45.3	29.8
80°	368.1	112.8	60.8	66.3	49.7	49.7	42.0	44.2	48.6	36.5	25.4
82.5°	153.7	24.3	33.2	37.6	31.0	34.3	34.3	35.4	34.3	26.5	18.8
85°	0.0	0.0	14.4	15.5	21.0	21.0	17.7	17.7	17.7	15.5	11.1
87.5°	0.0	0.0	0.0	0.0	1.1	3.3	6.6	7.7	8.8	6.6	4.4
90°	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):

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	497.4	497.4	497.4	497.4	497.4	497.4	497.4	497.4	497.4	497.4	497.4
2.5°	462.1	459.8	463.2	465.4	467.6	467.6	465.4	463.2	459.8	463.2	459.8
5°	426.7	430.0	435.5	437.7	439.9	435.5	433.3	426.7	421.2	422.3	420.1
7.5°	399.0	402.4	409.0	413.4	413.4	411.2	404.6	397.9	389.1	389.1	388.0
10°	373.6	378.0	385.8	391.3	393.5	391.3	384.7	375.8	368.1	368.1	364.8
12.5°	352.6	358.1	367.0	374.7	376.9	374.7	368.1	359.3	350.4	350.4	348.2
15°	334.9	341.6	351.5	360.4	363.7	360.4	352.6	341.6	332.7	333.8	330.5
17.5°	318.4	323.9	337.1	347.1	350.4	347.1	337.1	322.8	313.9	316.1	313.9
20°	299.6	306.2	319.5	330.5	333.8	330.5	319.5	304.0	295.1	295.1	296.2
22.5°	279.7	286.3	299.6	307.3	311.7	308.4	297.4	283.0	274.1	274.1	275.2
25°	262.0	265.3	275.2	283.0	284.1	280.8	271.9	260.9	254.2	257.6	258.7
27.5°	245.4	245.4	249.8	254.2	253.1	249.8	246.5	237.7	236.6	239.9	243.2
30°	227.7	222.2	220.0	216.7	215.6	214.4	217.8	217.8	220.0	224.4	227.7
32.5°	212.2	201.2	191.2	181.3	175.8	180.2	189.0	196.8	204.5	211.1	214.4
35°	194.6	176.9	160.3	147.0	138.2	144.8	159.2	173.5	186.8	195.7	201.2
37.5°	176.9	151.4	131.5	115.0	108.3	113.9	129.3	149.2	169.1	180.2	187.9
40°	158.1	126.0	102.8	89.5	82.9	88.4	103.9	123.8	150.3	164.7	174.7
42.5°	139.3	103.9	82.9	69.6	66.3	69.6	81.8	101.7	130.4	148.1	161.4
45°	120.5	86.2	66.3	56.4	53.1	56.4	66.3	82.9	111.6	131.5	147.0
47.5°	103.9	73.0	55.3	46.4	44.2	47.5	55.3	69.6	94.0	113.9	131.5
50°	90.6	64.1	47.5	39.8	37.6	40.9	47.5	58.6	79.6	97.3	116.1
52.5°	81.8	59.7	42.0	34.3	33.2	35.4	40.9	49.7	67.4	82.9	100.6
55°	79.6	59.7	38.7	31.0	29.8	32.1	36.5	43.1	58.6	71.9	87.3
57.5°	81.8	64.1	36.5	26.5	25.4	27.6	32.1	37.6	50.8	61.9	76.3
60°	81.8	65.2	32.1	21.0	19.9	22.1	26.5	33.2	45.3	54.2	66.3
62.5°	*74.1*	*59.7*	*26.5*	*16.6*	*14.4*	*16.6*	*22.1*	*27.6*	*39.8*	*48.6*	*58.6*
65°	64.1	50.8	22.1	12.2	9.9	12.2	17.7	23.2	34.3	42.0	53.1
67.5°	52.0	38.7	16.6	8.8	6.6	8.8	13.3	18.8	28.7	36.5	47.5
70°	38.7	27.6	13.3	7.7	6.6	7.7	12.2	17.7	25.4	33.2	44.2
72.5°	28.7	18.8	11.1	7.7	5.5	7.7	11.1	16.6	24.3	32.1	42.0
75°	24.3	15.5	9.9	6.6	5.5	6.6	9.9	15.5	22.1	29.8	39.8
77.5°	23.2	14.4	8.8	5.5	4.4	5.5	8.8	13.3	19.9	27.6	38.7
80°	19.9	12.2	7.7	4.4	3.3	4.4	7.7	11.1	15.5	21.0	29.8
82.5°	15.5	9.9	5.5	2.2	1.1	2.2	5.5	6.6	9.9	12.2	17.7
85°	9.9	5.5	2.2	0.0	0.0	0.0	2.2	4.4	4.4	5.5	8.8
87.5°	4.4	1.1	0.0	0.0	0.0	0.0	0.0	0.0	1.1	2.2	3.3
90°	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

Scaled Data Report

REPORT NUMBER: P637495
CATALOG NUMBER: GWS-SA4C-830-U-SLR-W-HSS

CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	497.4	497.4	497.4	497.4	497.4	497.4	497.4	497.4	497.4	497.4
2.5°	466.5	467.6	469.8	473.1	480.8	487.5	494.1	503.0	507.4	507.4
5°	422.3	423.4	424.5	428.9	439.9	448.8	463.2	480.8	489.7	491.9
7.5°	388.0	390.2	392.4	395.7	406.8	418.9	437.7	470.9	487.5	490.8
10°	368.1	371.4	375.8	382.5	392.4	405.7	437.7	497.4	525.1	530.6
12.5°	352.6	358.1	362.6	370.3	382.5	403.5	467.6	572.6	621.2	634.5
15°	337.1	343.8	350.4	358.1	371.4	411.2	525.1	707.5	788.1	798.1
17.5°	321.7	329.4	338.3	347.1	363.7	430.0	615.7	894.3	1007.0	1029.1
20°	304.0	313.9	326.1	337.1	355.9	459.8	741.7	1116.5	1257.9	1305.5
22.5°	285.2	297.4	311.7	326.1	347.1	496.3	894.3	1355.2	1553.1	1584.0
25°	269.7	281.9	295.1	309.5	332.7	540.5	1078.9	1651.5	1831.6	1861.5
27.5°	255.3	267.5	279.7	292.9	318.4	598.0	1301.1	1966.5	2154.4	2185.4
30°	239.9	254.2	266.4	279.7	305.1	668.8	1557.5	2315.8	2493.8	2522.5
32.5°	226.6	241.0	253.1	266.4	295.1	746.1	1827.2	2625.3	2770.1	2770.1
35°	215.6	231.0	239.9	257.6	287.4	795.9	2082.6	2920.5	3029.9	3025.5
37.5°	203.4	222.2	228.8	241.0	277.5	801.4	2322.4	3232.2	3312.9	3284.1
40°	191.2	211.1	221.1	227.7	266.4	756.1	2585.5	3518.5	3587.0	3549.4
42.5°	180.2	195.7	210.0	217.8	259.8	676.5	2796.7	3824.7	3906.5	3873.3
45°	169.1	182.4	191.2	205.6	264.2	621.2	2977.9	4181.7	4325.4	4301.1
47.5°	158.1	169.1	174.7	196.8	294.0	595.8	3088.5	4734.4	5005.2	4985.3
50°	145.9	159.2	159.2	194.6	338.3	604.7	3184.7	5534.7	5953.7	5947.0
52.5°	133.8	148.1	145.9	211.1	372.5	645.6	3294.1	6241.1	6969.5	7030.3
55°	121.6	134.9	137.1	244.3	392.4	680.9	2870.7	6538.4	7837.3	8050.6
57.5°	108.3	116.1	142.6	269.7	385.8	783.7	1966.5	6592.6	8391.1	8848.7
60°	94.0	100.6	161.4	264.2	364.8	724.0	1238.0	6106.2	8312.6	8892.9
62.5°	*81.8*	*92.9*	*170.2*	*233.2*	*371.4*	*627.9*	*789.3*	*5204.2*	*7564.2*	*8226.4*
65°	71.9	89.5	154.8	211.1	375.8	425.6	532.8	4233.7	6833.6	7463.7
67.5°	64.1	99.5	127.1	187.9	322.8	299.6	365.9	3289.7	5745.9	6310.7
70°	58.6	101.7	103.9	161.4	249.8	192.3	241.0	2214.1	3960.6	4606.2
72.5°	53.1	75.2	78.5	129.3	161.4	117.2	155.9	1266.8	2887.3	3327.2
75°	50.8	50.8	54.2	84.0	89.5	85.1	100.6	756.1	2070.4	2392.1
77.5°	47.5	38.7	34.3	54.2	48.6	60.8	59.7	336.0	897.6	970.5
80°	37.6	27.6	23.2	34.3	33.2	40.9	35.4	27.6	40.9	39.8
82.5°	23.2	17.7	16.6	21.0	18.8	21.0	16.6	4.4	4.4	4.4
85°	11.1	9.9	8.8	8.8	9.9	8.8	6.6	2.2	1.1	1.1
87.5°	5.5	5.5	4.4	3.3	4.4	4.4	3.3	1.1	0.0	0.0
90°	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: SP1-2408-195-9

Test Date: 08/07/2024

Luminaire Tested: GALN-SB1A-830-U-5WQ

Data in this report applies to families of products including GALN-SB1A-830-U-5WQ.

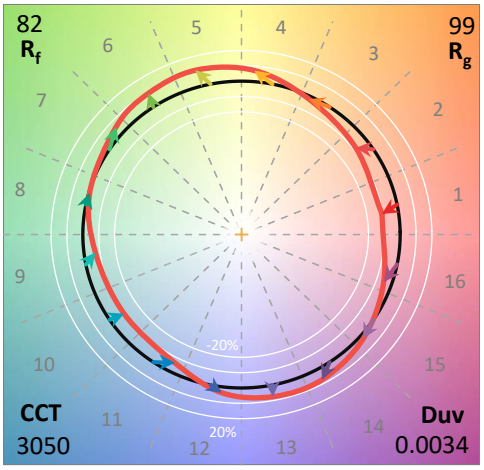
Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

Test Information

Test Method:	LM-79-2019
Report Number:	SP1-2408-195-9
Test Lab:	COOPER LIGHTING SOLUTIONS
Photometer:	SP1 - 76IN SPHERE
Measurement Geometry:	4π
Issue Date:	08/07/2024
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	MCGRAW EDISON
Catalog Number:	**GALN-SB1A-830-U-5WQ**
Description:	GALLEON AREA AND ROADWAY LUMINAIRE. (1) 80 CRI, 3000K, 350MA HIGH DENSITY LIGHTSQUARE WITH 26 LEDS AND TYPE V WIDE OPTICS

Spectral Parameters

CCT (K):	3050	CRI (Ra):	81.0		
CIE u':	0.2476	R1:	79.6	R9:	7.1
CIE v':	0.5251	R2:	85.6	R10:	67.0
Duv:	0.0034	R3:	92.0	R11:	82.7
CIE x:	0.4383	R4:	82.6	R12:	63.2
CIE y:	0.4131	R5:	78.9	R13:	80.3
CIE z:	0.1487	R6:	81.7	R14:	95.0
Peak Wavelength (nm):	603	R7:	85.2	R15:	71.7
Dominant Wavelength (nm):	581	R8:	62.0		
Purity:	55.55201				
Rf:	81.5				
Rg:	99.2				



Test Conditions

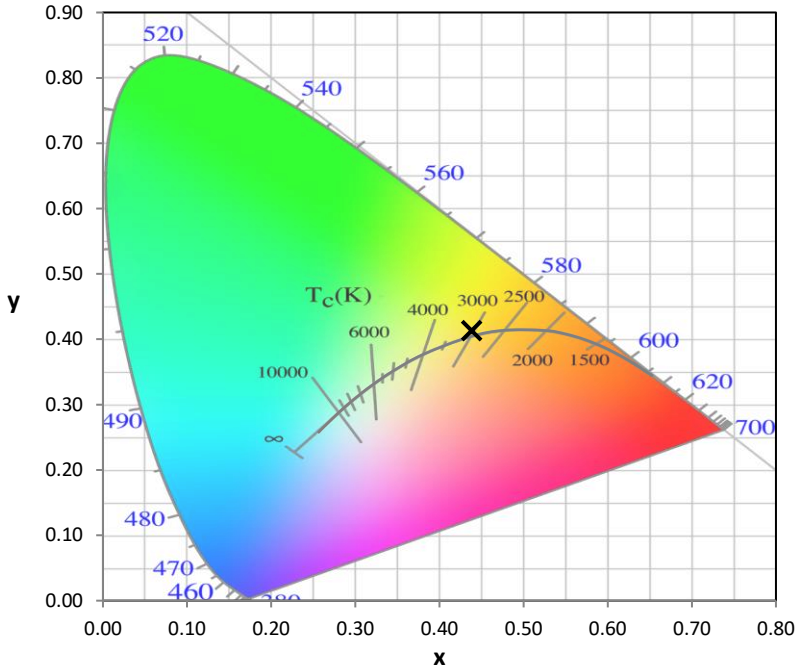
Stabilization Time:	20M
Operation Time:	1H 20M
Sphere Temperature (°C):	24.2

REPORT NUMBER: SP1-2408-195-9

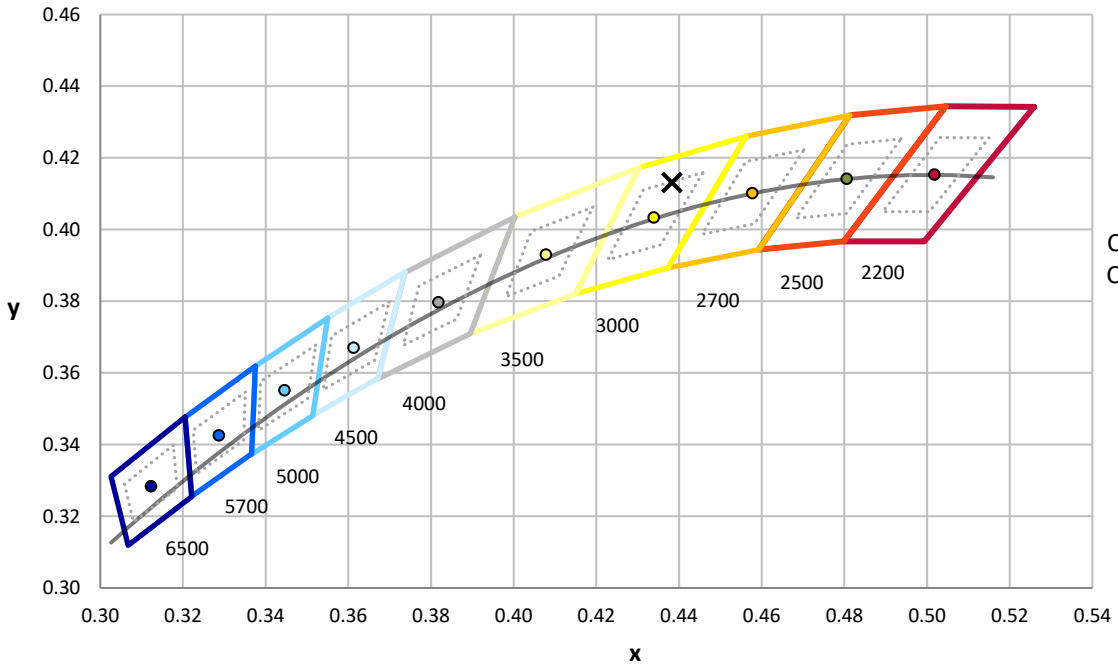
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

REPORT NUMBER: SP1-2408-195-9

CIE 1931 Chromaticity Diagram



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

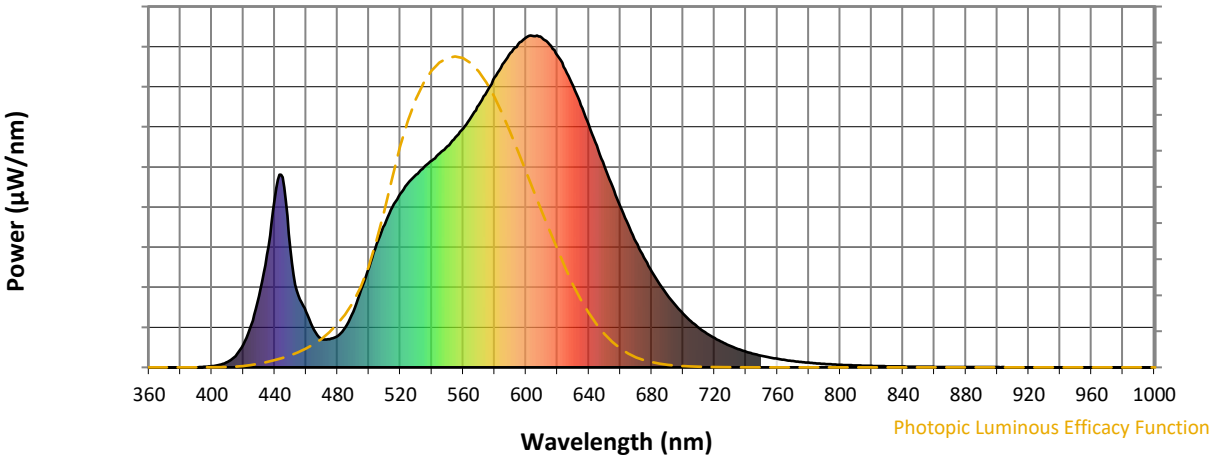


CCT = 3050K
CIE x = 0.4383
CIE y = 0.4131
Duv = 0.0034

Point lies inside the ANSI 3000K 4-step quadrangle

REPORT NUMBER: SP1-2408-195-9

Photopic Flux vs. Wavelength

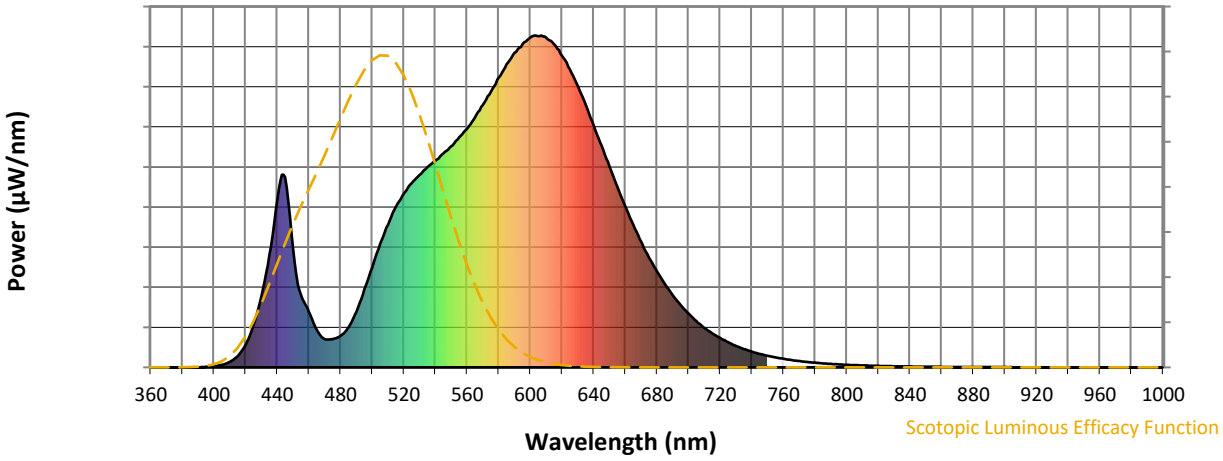


Photopic Lumens: NR

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	168	NR	620	940	NR	750	35	NR	880	1	NR
365	0	NR	495	233	NR	625	897	NR	755	30	NR	885	1	NR
370	0	NR	500	300	NR	630	847	NR	760	26	NR	890	1	NR
375	0	NR	505	372	NR	635	790	NR	765	22	NR	895	1	NR
380	0	NR	510	430	NR	640	730	NR	770	19	NR	900	1	NR
385	0	NR	515	483	NR	645	668	NR	775	16	NR	905	1	NR
390	0	NR	520	524	NR	650	605	NR	780	14	NR	910	0	NR
395	2	NR	525	555	NR	655	545	NR	785	12	NR	915	0	NR
400	4	NR	530	581	NR	660	485	NR	790	10	NR	920	0	NR
405	7	NR	535	604	NR	665	430	NR	795	9	NR	925	0	NR
410	17	NR	540	623	NR	670	378	NR	800	8	NR	930	0	NR
415	34	NR	545	645	NR	675	331	NR	805	7	NR	935	0	NR
420	68	NR	550	667	NR	680	290	NR	810	6	NR	940	0	NR
425	128	NR	555	693	NR	685	251	NR	815	5	NR	945	0	NR
430	214	NR	560	719	NR	690	218	NR	820	4	NR	950	0	NR
435	339	NR	565	754	NR	695	188	NR	825	4	NR	955	0	NR
440	507	NR	570	791	NR	700	162	NR	830	3	NR	960	0	NR
445	573	NR	575	830	NR	705	139	NR	835	3	NR	965	0	NR
450	356	NR	580	873	NR	710	119	NR	840	3	NR	970	0	NR
455	217	NR	585	913	NR	715	102	NR	845	2	NR	975	0	NR
460	168	NR	590	948	NR	720	88	NR	850	2	NR	980	0	NR
465	113	NR	595	974	NR	725	76	NR	855	2	NR	985	0	NR
470	85	NR	600	994	NR	730	65	NR	860	1	NR	990	0	NR
475	85	NR	605	998	NR	735	55	NR	865	1	NR	995	0	NR
480	94	NR	610	994	NR	740	47	NR	870	1	NR	1000	0	NR
485	120	NR	615	973	NR	745	41	NR	875	1	NR			

REPORT NUMBER: SP1-2408-195-9

Scotopic Flux vs. Wavelength

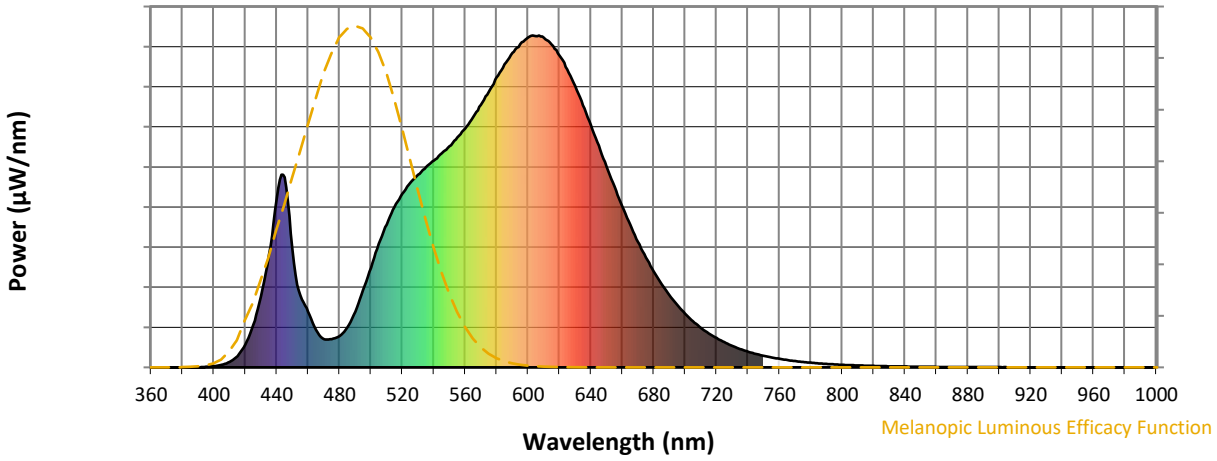


Scotopic Lumens: NR **S/P: 1.27**

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	168	NR	620	940	NR	750	35	NR	880	1	NR
365	0	NR	495	233	NR	625	897	NR	755	30	NR	885	1	NR
370	0	NR	500	300	NR	630	847	NR	760	26	NR	890	1	NR
375	0	NR	505	372	NR	635	790	NR	765	22	NR	895	1	NR
380	0	NR	510	430	NR	640	730	NR	770	19	NR	900	1	NR
385	0	NR	515	483	NR	645	668	NR	775	16	NR	905	1	NR
390	0	NR	520	524	NR	650	605	NR	780	14	NR	910	0	NR
395	2	NR	525	555	NR	655	545	NR	785	12	NR	915	0	NR
400	4	NR	530	581	NR	660	485	NR	790	10	NR	920	0	NR
405	7	NR	535	604	NR	665	430	NR	795	9	NR	925	0	NR
410	17	NR	540	623	NR	670	378	NR	800	8	NR	930	0	NR
415	34	NR	545	645	NR	675	331	NR	805	7	NR	935	0	NR
420	68	NR	550	667	NR	680	290	NR	810	6	NR	940	0	NR
425	128	NR	555	693	NR	685	251	NR	815	5	NR	945	0	NR
430	214	NR	560	719	NR	690	218	NR	820	4	NR	950	0	NR
435	339	NR	565	754	NR	695	188	NR	825	4	NR	955	0	NR
440	507	NR	570	791	NR	700	162	NR	830	3	NR	960	0	NR
445	573	NR	575	830	NR	705	139	NR	835	3	NR	965	0	NR
450	356	NR	580	873	NR	710	119	NR	840	3	NR	970	0	NR
455	217	NR	585	913	NR	715	102	NR	845	2	NR	975	0	NR
460	168	NR	590	948	NR	720	88	NR	850	2	NR	980	0	NR
465	113	NR	595	974	NR	725	76	NR	855	2	NR	985	0	NR
470	85	NR	600	994	NR	730	65	NR	860	1	NR	990	0	NR
475	85	NR	605	998	NR	735	55	NR	865	1	NR	995	0	NR
480	94	NR	610	994	NR	740	47	NR	870	1	NR	1000	0	NR
485	120	NR	615	973	NR	745	41	NR	875	1	NR			

REPORT NUMBER: SP1-2408-195-9

Melanopic Flux vs. Wavelength



Melanopic Lumens: NR **M/P: 2.32**

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	168	NR	620	940	NR	750	35	NR	880	1	NR
365	0	NR	495	233	NR	625	897	NR	755	30	NR	885	1	NR
370	0	NR	500	300	NR	630	847	NR	760	26	NR	890	1	NR
375	0	NR	505	372	NR	635	790	NR	765	22	NR	895	1	NR
380	0	NR	510	430	NR	640	730	NR	770	19	NR	900	1	NR
385	0	NR	515	483	NR	645	668	NR	775	16	NR	905	1	NR
390	0	NR	520	524	NR	650	605	NR	780	14	NR	910	0	NR
395	2	NR	525	555	NR	655	545	NR	785	12	NR	915	0	NR
400	4	NR	530	581	NR	660	485	NR	790	10	NR	920	0	NR
405	7	NR	535	604	NR	665	430	NR	795	9	NR	925	0	NR
410	17	NR	540	623	NR	670	378	NR	800	8	NR	930	0	NR
415	34	NR	545	645	NR	675	331	NR	805	7	NR	935	0	NR
420	68	NR	550	667	NR	680	290	NR	810	6	NR	940	0	NR
425	128	NR	555	693	NR	685	251	NR	815	5	NR	945	0	NR
430	214	NR	560	719	NR	690	218	NR	820	4	NR	950	0	NR
435	339	NR	565	754	NR	695	188	NR	825	4	NR	955	0	NR
440	507	NR	570	791	NR	700	162	NR	830	3	NR	960	0	NR
445	573	NR	575	830	NR	705	139	NR	835	3	NR	965	0	NR
450	356	NR	580	873	NR	710	119	NR	840	3	NR	970	0	NR
455	217	NR	585	913	NR	715	102	NR	845	2	NR	975	0	NR
460	168	NR	590	948	NR	720	88	NR	850	2	NR	980	0	NR
465	113	NR	595	974	NR	725	76	NR	855	2	NR	985	0	NR
470	85	NR	600	994	NR	730	65	NR	860	1	NR	990	0	NR
475	85	NR	605	998	NR	735	55	NR	865	1	NR	995	0	NR
480	94	NR	610	994	NR	740	47	NR	870	1	NR	1000	0	NR
485	120	NR	615	973	NR	745	41	NR	875	1	NR			

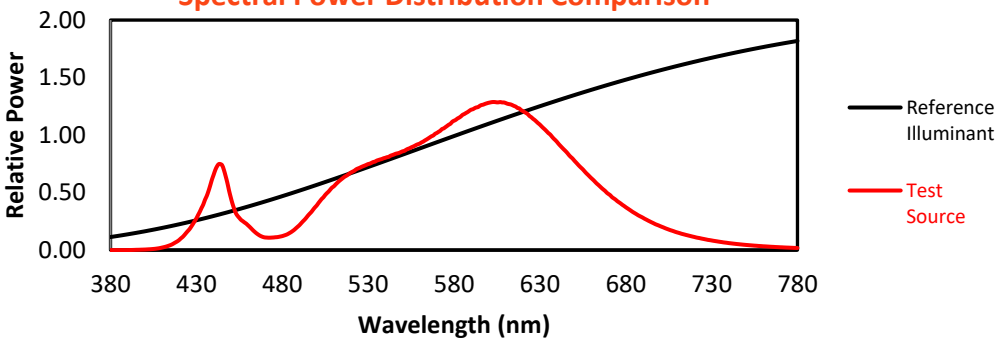
REPORT NUMBER: SP1-2408-195-9

TM-30-18

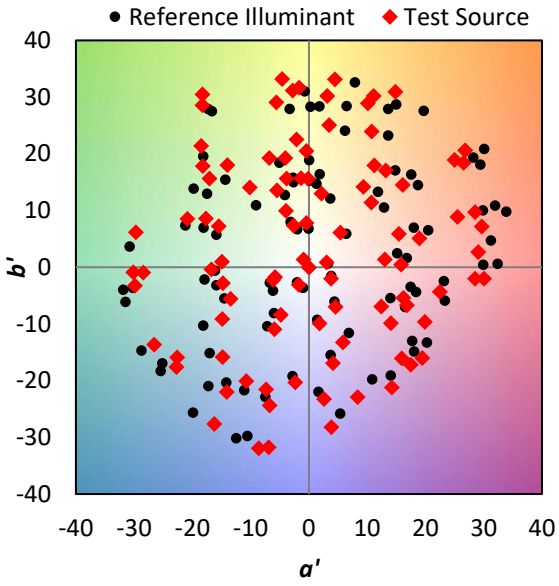
Summary

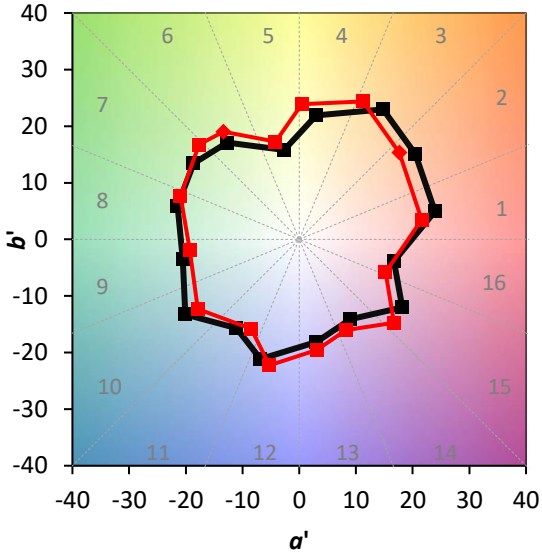
R_f = 81.5
R_g = 99.2
CIE R_a = 81.0
R_9 = 7.1

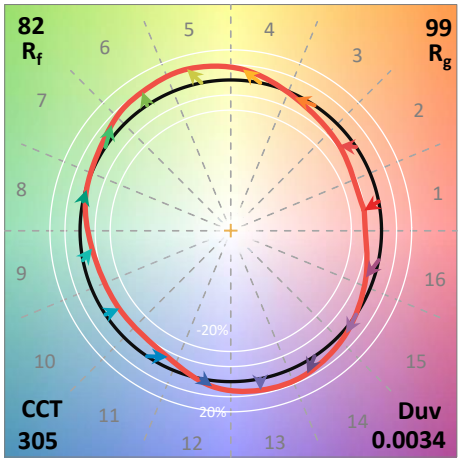
Spectral Power Distribution Comparison

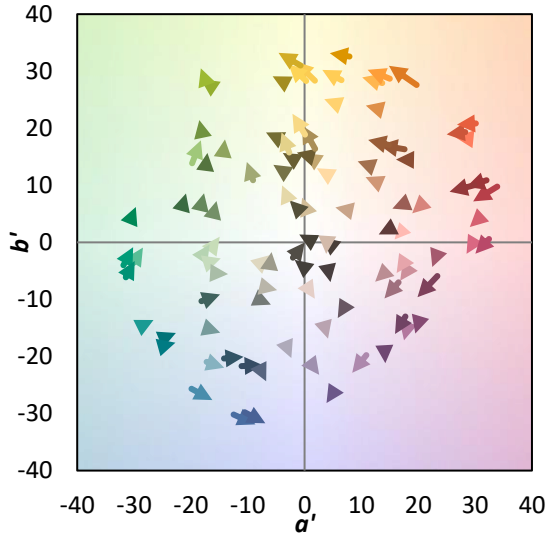


Color Vector Graphics









REPORT NUMBER: SP1-2408-195-9

TM-30-18

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

CES01 = 86	CES26 = 74	CES51 = 89	CES76 = 70
CES02 = 63	CES27 = 88	CES52 = 92	CES77 = 86
CES03 = 31	CES28 = 89	CES53 = 81	CES78 = 72
CES04 = 70	CES29 = 67	CES54 = 87	CES79 = 90
CES05 = 50	CES30 = 68	CES55 = 85	CES80 = 88
CES06 = 51	CES31 = 71	CES56 = 78	CES81 = 78
CES07 = 42	CES32 = 70	CES57 = 76	CES82 = 95
CES08 = 41	CES33 = 71	CES58 = 78	CES83 = 90
CES09 = 29	CES34 = 82	CES59 = 92	CES84 = 94
CES10 = 76	CES35 = 90	CES60 = 95	CES85 = 86
CES11 = 59	CES36 = 93	CES61 = 93	CES86 = 72
CES12 = 65	CES37 = 87	CES62 = 83	CES87 = 85
CES13 = 43	CES38 = 75	CES63 = 77	CES88 = 83
CES14 = 74	CES39 = 94	CES64 = 83	CES89 = 75
CES15 = 71	CES40 = 89	CES65 = 77	CES90 = 81
CES16 = 47	CES41 = 85	CES66 = 80	CES91 = 96
CES17 = 50	CES42 = 86	CES67 = 79	CES92 = 73
CES18 = 56	CES43 = 81	CES68 = 84	CES93 = 84
CES19 = 72	CES44 = 99	CES69 = 91	CES94 = 64
CES20 = 66	CES45 = 87	CES70 = 78	CES95 = 80
CES21 = 87	CES46 = 82	CES71 = 76	CES96 = 84
CES22 = 79	CES47 = 77	CES72 = 92	CES97 = 87
CES23 = 92	CES48 = 71	CES73 = 71	CES98 = 81
CES24 = 91	CES49 = 81	CES74 = 93	CES99 = 74
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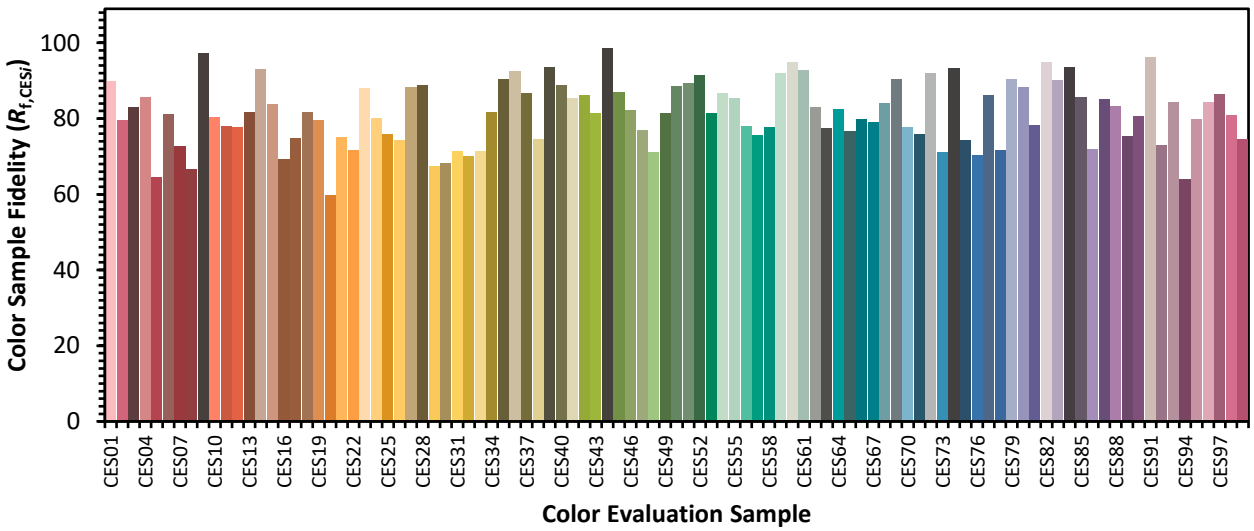

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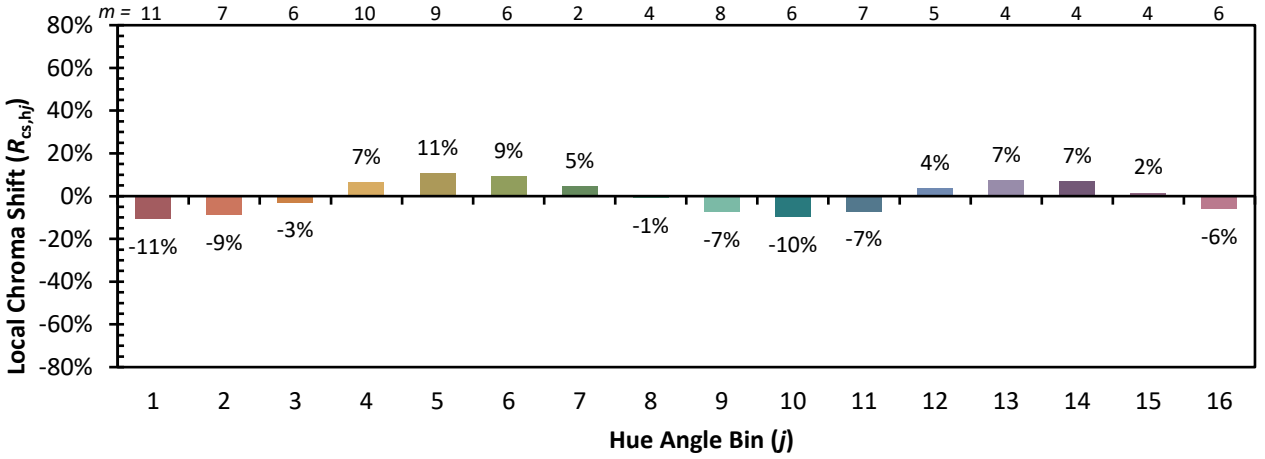
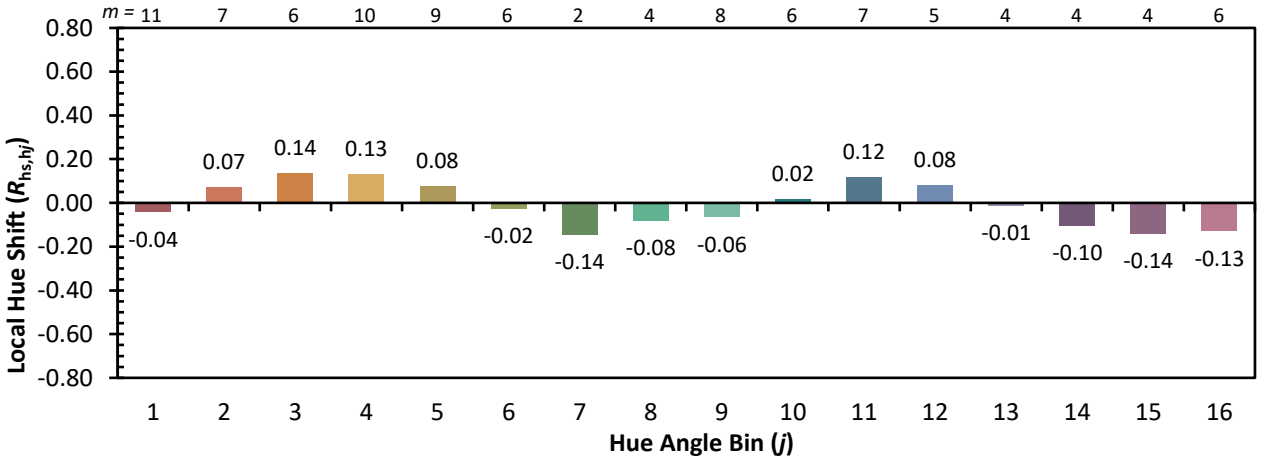
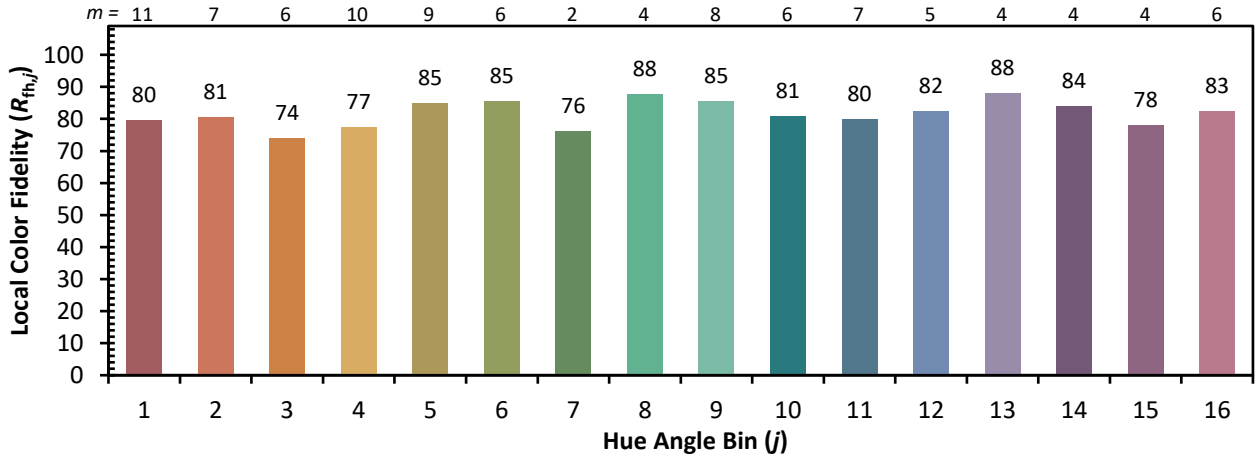
Color Rendition by Hue-Angle Bin







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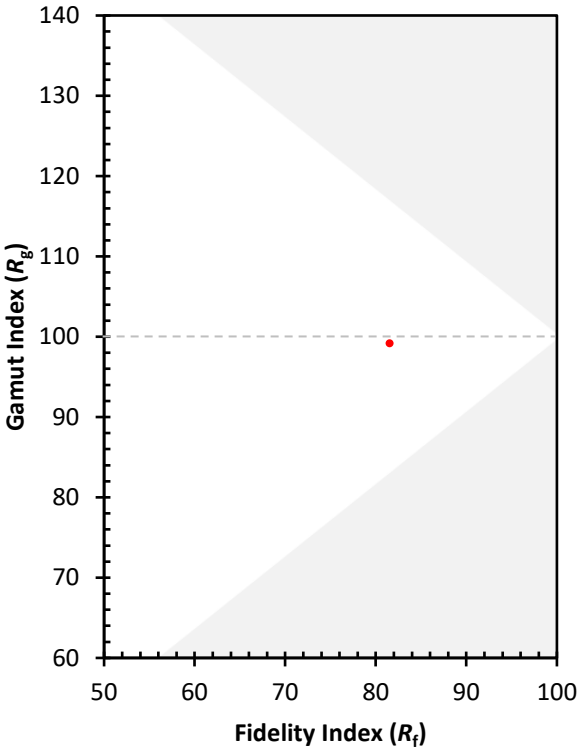
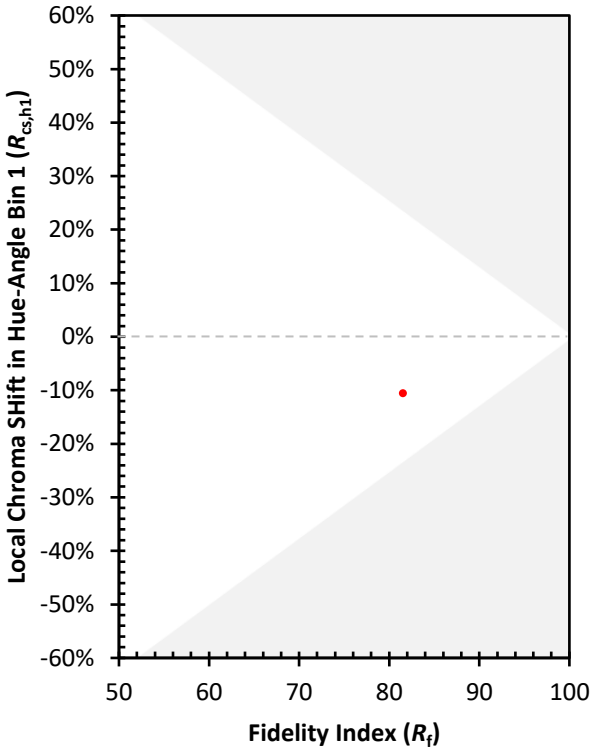
Measure Comparisons





(END OF REPORT)