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: P641451

Luminaire Tested: GWS-SA5F-830-U-SLL-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:	P641451
	TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-40)
Test Lab:	COOPER LIGHTING SOLUTIONS
Issue Date:	1/10/2023
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	McGRAW-EDISON
Catalog Number:	GWS-SA5F-830-U-SLL-W-HSS
Description:	GALLEON WALL SLIM LUMINAIRE. (5) LIGHTSQUARES WITH 16 LEDS EACH AND SPILL LIGHT ELIMINATOR LEFT OPTICS WITH HOUSE SIDE SHIELD
Light Source:	(80) 3000K CCT, 80 CRI LEDS
Ballast/Driver:	-

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	20075.2 lumens
Efficiency:	N/A
Efficacy:	64.7 lumens/watt
Luminous Opening:	Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification:	Type III - Short
BUG Rating:	B2 - U0 - G4

Input Watts (W):	310.3
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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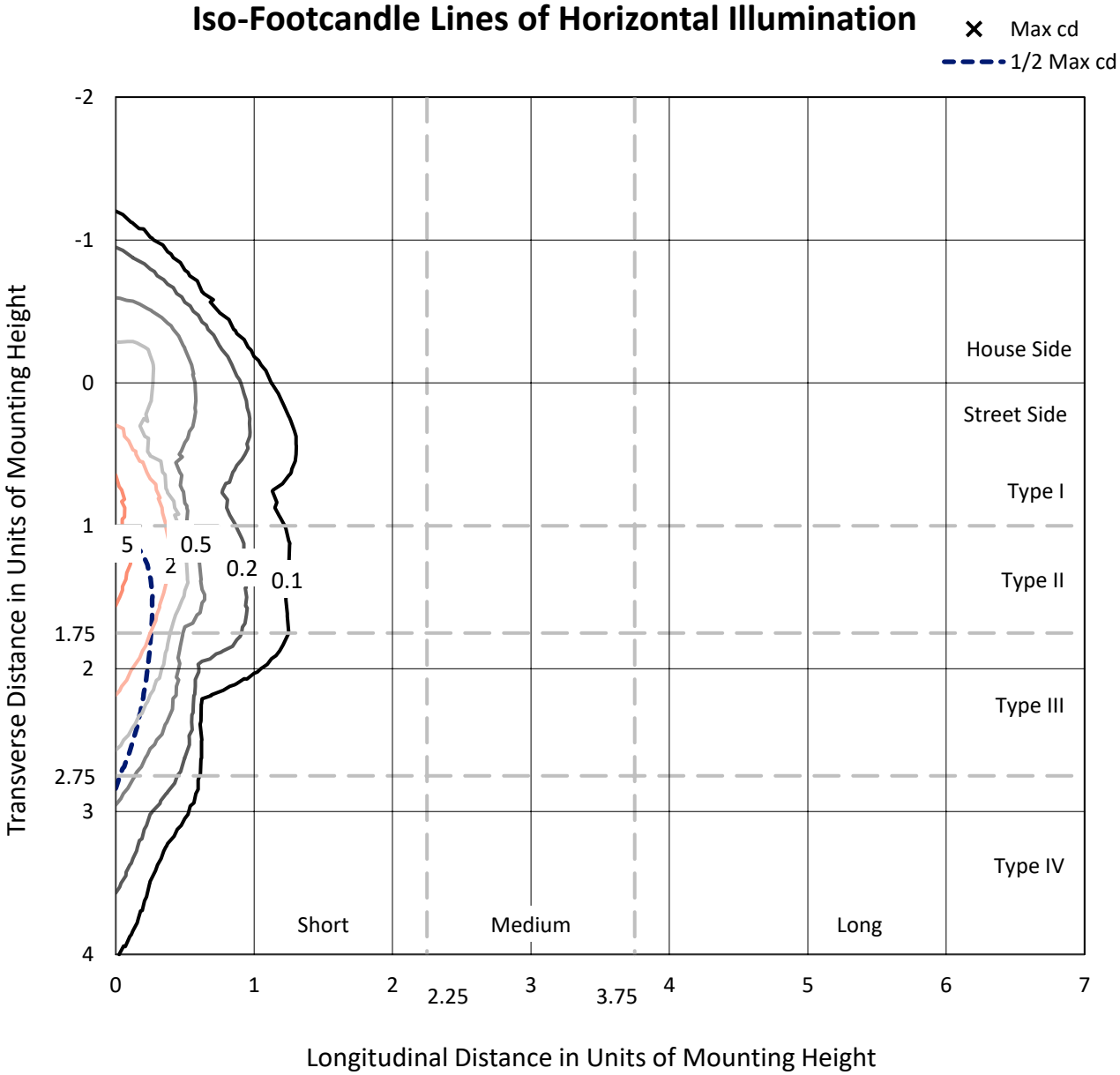
Iso-Footcandle Lines of Horizontal Illumination



Based on 25 foot mounting height. Maximum calculated value = 5.7 fc
Type III - Short - N/A

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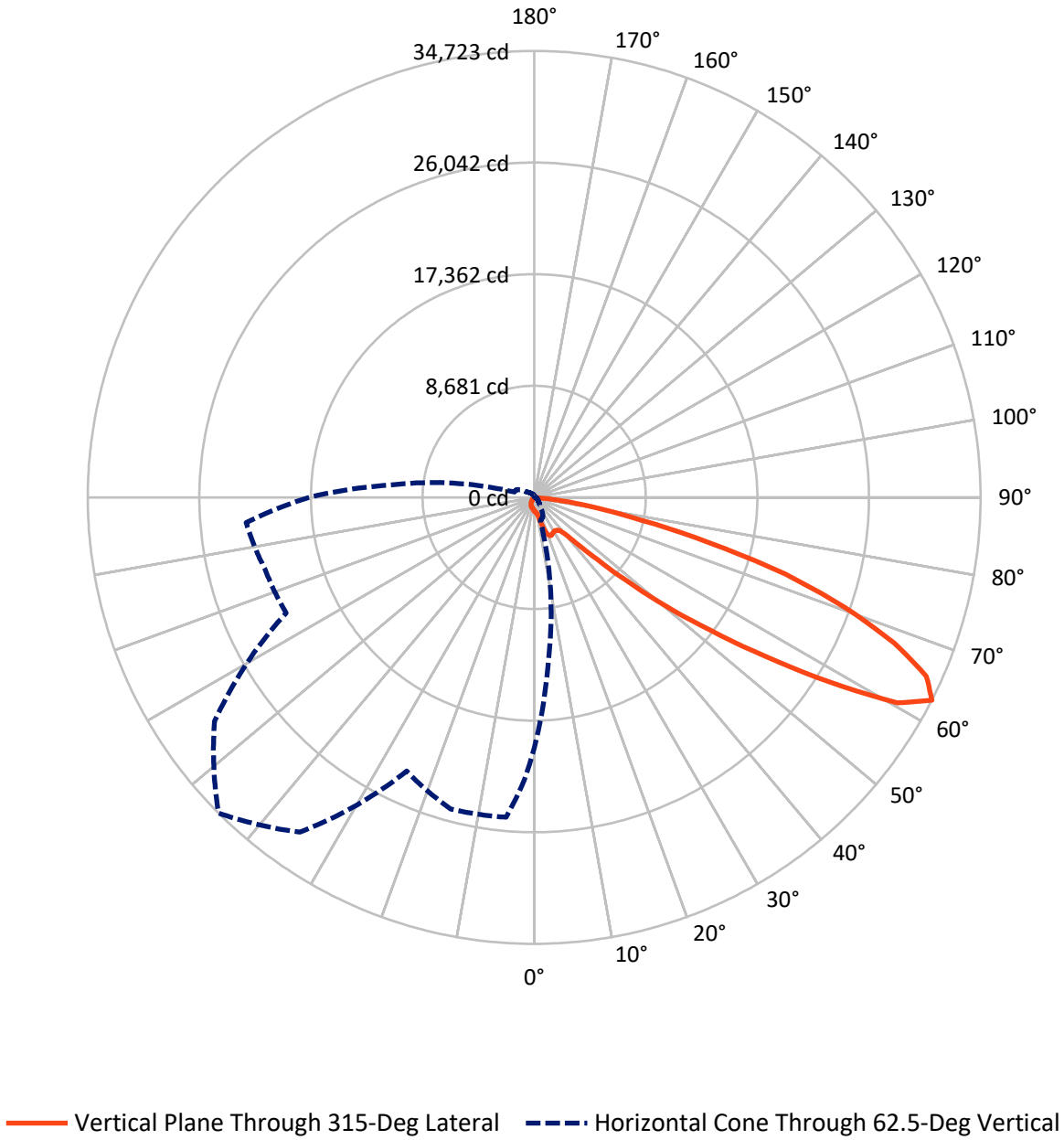
Luminous Intensity Polar Plot



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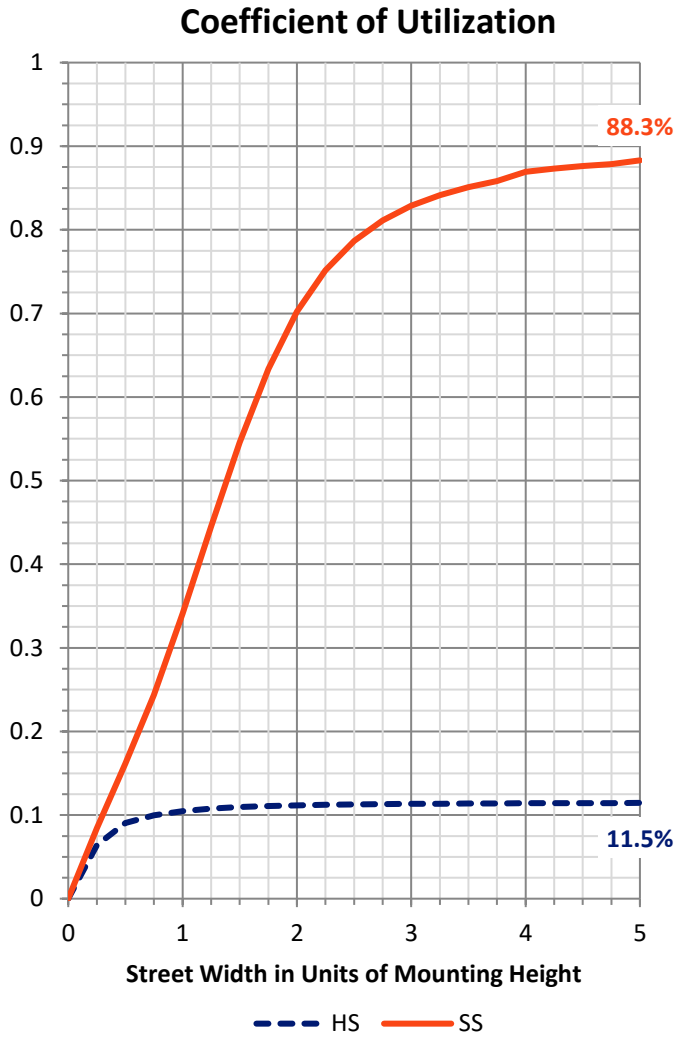
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2332.5	0.0	2332.5
	% Fixture	11.6	0.0	11.6
Street Side	Lumens	17742.7	0.0	17742.7
	% Fixture	88.4	0.0	88.4
Total	Lumens	20075.2	0.0	20075.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	89.9	0.4
10°-20°	308.2	1.5
20°-30°	696.2	3.5
30°-40°	1199.3	6.0
40°-50°	2262.3	11.3
50°-60°	5051.1	25.2
60°-70°	6755.8	33.7
70°-80°	3387.8	16.9
80°-90°	324.7	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°	20075.2	100.0
0°-180°	20075.2	100.0



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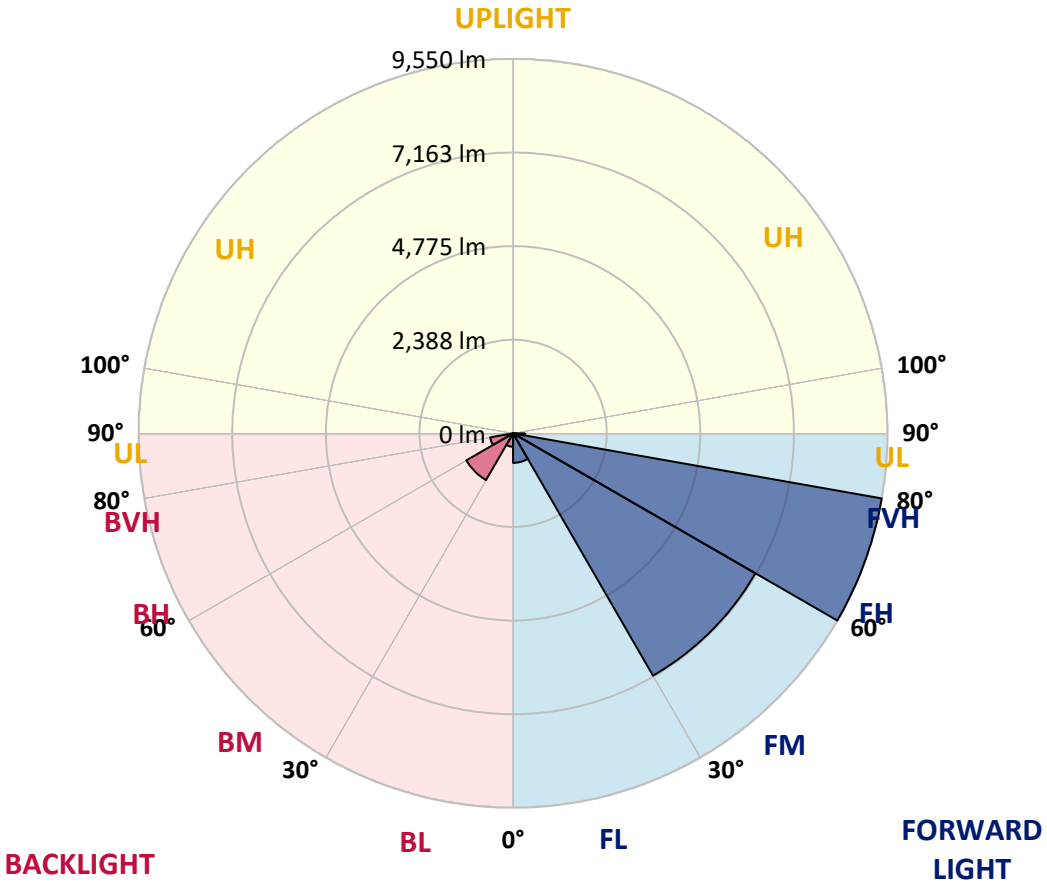
LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	751.8	3.7			
FM	(30°-60°)	7137.3	35.6			
FH	(60°-80°)	9550.4	47.6			G4/12000
FVH	(80°-90°)	303.1	1.5			G3/500
BL	(0°-30°)	342.4	1.7	B1/500		
BM	(30°-60°)	1375.4	6.9	B2/2500		
BH	(60°-80°)	593.1	3.0	B2/1000		G2/1000
BVH	(80°-90°)	21.6	0.1			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G4
Type III Short



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CANDELA DISTRIBUTION (FULL):

	0°	2°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	1041.1	1041.1	1041.1	1041.1	1041.1	1041.1	1041.1	1041.1	1041.1	1041.1	1041.1
2.5°	1029.2	1026.9	1022.1	1007.9	996.0	988.8	974.6	974.6	972.2	967.4	957.9
5°	996.0	986.5	976.9	950.8	922.3	905.6	886.6	884.2	884.2	879.5	877.1
7.5°	943.7	934.2	922.3	879.5	853.3	836.7	820.1	817.7	810.6	810.6	810.6
10°	915.1	900.9	881.9	834.3	808.2	793.9	782.0	774.9	770.2	763.0	760.6
12.5°	976.9	950.8	910.4	824.8	789.2	770.2	755.9	751.1	736.9	727.4	720.2
15°	1169.5	1105.3	1024.5	846.2	782.0	753.5	734.5	725.0	713.1	696.5	684.6
17.5°	1485.6	1392.9	1257.4	915.1	774.9	739.2	715.5	698.8	682.2	663.2	648.9
20°	1923.0	1785.1	1623.5	1041.1	774.9	722.6	694.1	672.7	648.9	627.5	610.9
22.5°	2479.2	2341.4	2065.6	1255.1	784.4	701.2	667.9	639.4	610.9	591.9	572.9
25°	3102.0	2907.1	2650.4	1514.2	810.6	672.7	637.0	608.5	582.4	558.6	537.2
27.5°	3796.1	3584.5	3242.2	1882.6	867.6	644.2	603.8	577.6	553.8	530.1	501.5
30°	4435.5	4309.5	3960.1	2324.7	960.3	625.2	577.6	553.8	530.1	499.2	473.0
32.5°	5203.3	4979.8	4692.2	2828.6	1083.9	606.1	556.2	522.9	503.9	475.4	446.9
35°	5975.8	5785.6	5407.7	3449.0	1221.8	587.1	530.1	499.2	482.5	449.3	418.4
37.5°	6772.1	6729.3	6356.1	4136.0	1357.3	565.7	499.2	480.2	463.5	425.5	389.8
40°	7556.5	7478.1	7133.4	4920.4	1440.5	542.0	473.0	461.1	442.1	399.3	358.9
42.5°	8307.6	8248.2	7913.1	5671.5	1428.6	520.6	446.9	432.6	418.4	375.6	325.6
45°	9229.9	9132.5	8709.4	6227.8	1307.4	544.3	420.7	397.0	394.6	354.2	292.4
47.5°	10955.6	10634.7	9916.9	6655.6	1186.1	606.1	392.2	363.7	380.3	332.8	259.1
50°	13373.0	12995.1	11956.3	6988.4	1183.7	687.0	387.5	332.8	368.4	316.1	230.6
52.5°	15802.3	15136.8	13874.6	7166.7	1271.7	746.4	430.2	301.9	354.2	299.5	209.2
55°	18129.4	16748.4	14678.0	6577.2	1340.6	810.6	508.7	285.2	328.0	280.5	197.3
57.5°	20347.2	18043.9	15027.4	5203.3	1571.2	836.7	556.2	292.4	290.0	256.7	187.8
60°	20651.4	17982.1	14321.5	3025.9	1732.8	791.5	537.2	325.6	254.3	228.2	171.1
62.5°	*19501.0*	*16786.4*	*12712.2*	*1887.3*	*1609.2*	*774.9*	*477.8*	*370.8*	*230.6*	*202.0*	*149.8*
65°	17753.9	14911.0	10599.1	1217.0	1219.4	860.5	418.4	363.7	216.3	178.3	128.4
67.5°	15022.7	12479.3	8350.4	815.3	689.3	734.5	366.1	249.6	211.6	152.1	99.8
70°	10965.1	8882.9	5436.2	544.3	411.2	587.1	306.6	178.3	199.7	126.0	71.3
72.5°	8015.3	5968.7	3035.4	356.6	232.9	342.3	225.8	128.4	154.5	92.7	49.9
75°	5769.0	4107.5	1732.8	228.2	154.5	187.8	147.4	87.9	99.8	73.7	45.2
77.5°	2776.3	2001.4	786.8	126.0	104.6	95.1	78.4	54.7	61.8	66.6	40.4
80°	104.6	78.4	59.4	61.8	66.6	42.8	35.7	28.5	35.7	45.2	21.4
82.5°	0.0	0.0	0.0	7.1	9.5	11.9	14.3	11.9	14.3	16.6	2.4
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0

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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1041.1	1041.1	1041.1	1041.1	1041.1	1041.1	1041.1	1041.1	1041.1	1041.1	1041.1
2.5°	965.1	960.3	965.1	969.8	974.6	979.3	972.2	976.9	981.7	969.8	974.6
5°	889.0	886.6	900.9	908.0	917.5	922.3	917.5	917.5	915.1	900.9	900.9
7.5°	822.4	824.8	836.7	853.3	865.2	872.4	867.6	865.2	858.1	836.7	836.7
10°	772.5	772.5	791.5	805.8	822.4	829.6	824.8	817.7	810.6	789.2	786.8
12.5°	732.1	732.1	746.4	770.2	789.2	798.7	796.3	786.8	774.9	753.5	751.1
15°	694.1	691.7	713.1	734.5	760.6	772.5	767.8	760.6	739.2	720.2	715.5
17.5°	656.1	653.7	672.7	701.2	729.7	746.4	744.0	727.4	708.3	684.6	679.8
20°	618.0	613.3	637.0	665.6	694.1	710.7	706.0	691.7	667.9	644.2	639.4
22.5°	580.0	577.6	594.3	618.0	644.2	658.4	656.1	644.2	620.4	599.0	599.0
25°	537.2	537.2	549.1	565.7	584.7	591.9	594.3	589.5	575.2	563.4	563.4
27.5°	501.5	494.4	499.2	503.9	513.4	525.3	525.3	530.1	532.4	527.7	530.1
30°	473.0	461.1	454.0	444.5	439.7	444.5	449.3	465.9	482.5	492.0	496.8
32.5°	439.7	425.5	406.5	380.3	363.7	358.9	373.2	404.1	435.0	456.4	468.3
35°	406.5	387.5	351.8	313.8	292.4	285.2	301.9	337.5	382.7	420.7	437.4
37.5°	373.2	347.0	297.1	252.0	228.2	223.4	240.1	278.1	330.4	382.7	404.1
40°	335.2	304.3	244.8	197.3	178.3	173.5	187.8	225.8	280.5	339.9	373.2
42.5°	297.1	259.1	197.3	156.9	137.9	137.9	156.9	185.4	235.3	299.5	339.9
45°	259.1	218.7	161.6	126.0	114.1	116.5	128.4	156.9	197.3	263.8	301.9
47.5°	223.4	187.8	133.1	104.6	95.1	97.5	111.7	135.5	168.8	228.2	268.6
50°	192.5	159.3	116.5	87.9	80.8	85.6	99.8	121.2	149.8	202.0	235.3
52.5°	173.5	142.6	107.0	76.1	71.3	76.1	90.3	109.3	135.5	178.3	211.6
55°	164.0	140.2	107.0	68.9	61.8	66.6	80.8	99.8	121.2	161.6	190.2
57.5°	161.6	145.0	114.1	61.8	52.3	57.0	71.3	90.3	111.7	147.4	171.1
60°	152.1	137.9	111.7	49.9	40.4	47.5	59.4	78.4	102.2	137.9	159.3
62.5°	*133.1*	*121.2*	*97.5*	*40.4*	*30.9*	*35.7*	*49.9*	*68.9*	*92.7*	*126.0*	*149.8*
65°	109.3	97.5	76.1	26.1	19.0	23.8	38.0	59.4	80.8	114.1	135.5
67.5°	80.8	68.9	52.3	16.6	9.5	16.6	30.9	49.9	73.7	102.2	123.6
70°	49.9	40.4	28.5	9.5	7.1	14.3	28.5	47.5	66.6	95.1	116.5
72.5°	28.5	19.0	11.9	4.8	7.1	14.3	28.5	47.5	64.2	90.3	109.3
75°	21.4	11.9	4.8	2.4	4.8	11.9	26.1	42.8	61.8	85.6	104.6
77.5°	14.3	7.1	2.4	0.0	2.4	9.5	23.8	40.4	57.0	80.8	99.8
80°	2.4	0.0	0.0	0.0	0.0	7.1	21.4	35.7	52.3	71.3	87.9
82.5°	0.0	0.0	0.0	0.0	0.0	2.4	16.6	30.9	45.2	59.4	71.3
85°	0.0	0.0	0.0	0.0	0.0	0.0	9.5	23.8	35.7	45.2	49.9
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.9	23.8	28.5	33.3
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°	1041.1	1041.1	1041.1	1041.1	1041.1	1041.1	1041.1	1041.1	1041.1	1041.1	1041.1
2.5°	972.2	986.5	986.5	996.0	1007.9	1029.2	1041.1	1057.8	1069.7	1081.5	1086.3
5°	898.5	900.9	903.3	908.0	922.3	946.0	967.4	993.6	1024.5	1048.3	1062.5
7.5°	836.7	836.7	836.7	843.8	858.1	874.7	896.1	931.8	967.4	996.0	1019.7
10°	784.4	791.5	793.9	805.8	822.4	843.8	867.6	898.5	938.9	976.9	1019.7
12.5°	751.1	758.3	770.2	782.0	798.7	822.4	848.6	889.0	972.2	1050.6	1141.0
15°	720.2	729.7	744.0	760.6	779.7	805.8	834.3	917.5	1112.4	1259.8	1402.4
17.5°	687.0	701.2	720.2	736.9	760.6	789.2	824.8	986.5	1369.2	1614.0	1856.4
20°	644.2	663.2	684.6	710.7	739.2	772.5	824.8	1129.1	1740.0	2091.8	2412.7
22.5°	603.8	622.8	648.9	682.2	715.5	748.8	836.7	1345.4	2217.7	2662.2	3068.7
25°	570.5	594.3	620.4	648.9	687.0	725.0	865.2	1649.6	2793.0	3365.8	3653.5
27.5°	539.6	568.1	594.3	618.0	651.3	694.1	929.4	2056.1	3472.8	4055.2	4281.0
30°	508.7	542.0	568.1	591.9	625.2	670.3	1026.9	2574.3	4228.7	4794.4	4818.2
32.5°	482.5	513.4	544.3	568.1	599.0	651.3	1162.4	3180.4	5003.6	5550.3	5326.9
35°	454.0	489.7	518.2	544.3	577.6	634.7	1319.2	3834.1	5785.6	6244.4	5833.2
37.5°	425.5	465.9	501.5	520.6	553.8	618.0	1433.3	4516.3	6584.3	6921.8	6277.7
40°	399.3	444.5	484.9	503.9	520.6	596.6	1450.0	5215.2	7394.9	7589.8	6696.0
42.5°	370.8	420.7	456.4	482.5	496.8	582.4	1350.1	5804.6	8074.7	8255.3	7242.7
45°	339.9	399.3	427.9	446.9	475.4	591.9	1221.8	6261.0	8852.0	9163.4	8143.6
47.5°	309.0	375.6	399.3	413.6	451.6	648.9	1174.2	6565.3	10133.2	10779.7	9662.5
50°	280.5	354.2	380.3	377.9	446.9	722.6	1226.5	6795.9	12058.6	12819.2	11744.8
52.5°	249.6	330.4	361.3	351.8	482.5	779.7	1331.1	6978.9	13539.4	15210.5	14542.5
55°	223.4	304.3	332.8	330.4	549.1	822.4	1411.9	6013.8	14152.7	17433.0	17694.4
57.5°	204.4	275.7	299.5	339.9	591.9	822.4	1633.0	4269.1	14164.6	19068.3	21878.0
60°	187.8	249.6	266.2	373.2	575.2	779.7	1616.4	2614.7	13054.5	18956.6	24102.8
62.5°	*173.5*	*225.8*	*247.2*	*382.7*	*508.7*	*772.5*	*1459.5*	*1621.1*	*11133.9*	*17513.8*	*22488.9*
65°	161.6	206.8	237.7	351.8	461.1	827.2	984.1	1164.7	9030.2	15868.9	20637.2
67.5°	149.8	190.2	252.0	287.6	418.4	739.2	710.7	827.2	7088.2	14064.7	18937.6
70°	140.2	180.7	266.2	235.3	366.1	577.6	503.9	627.5	5426.7	11735.3	16544.0
72.5°	133.1	168.8	223.4	185.4	297.1	446.9	351.8	456.4	3546.5	9161.0	13487.1
75°	126.0	154.5	164.0	149.8	221.1	292.4	266.2	306.6	2113.2	6696.0	10233.0
77.5°	123.6	145.0	133.1	121.2	149.8	173.5	202.0	206.8	1031.6	3349.2	5362.5
80°	109.3	130.7	114.1	99.8	102.2	114.1	149.8	137.9	235.3	851.0	1431.0
82.5°	85.6	102.2	95.1	83.2	83.2	83.2	99.8	92.7	76.1	382.7	646.5
85°	59.4	71.3	71.3	66.6	64.2	64.2	61.8	59.4	21.4	23.8	35.7
87.5°	40.4	49.9	52.3	49.9	42.8	38.0	33.3	28.5	9.5	0.0	4.8
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: P641451
CATALOG NUMBER: GWS-SA5F-830-U-SLL-W-HSS

CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	358°	360°
0°	1041.1	1041.1	1041.1	1041.1	1041.1	1041.1	1041.1	1041.1	1041.1	1041.1
2.5°	1102.9	1110.1	1110.1	1100.6	1093.4	1074.4	1055.4	1036.4	1031.6	1029.2
5°	1102.9	1131.5	1145.7	1143.3	1126.7	1095.8	1055.4	1012.6	1000.7	996.0
7.5°	1086.3	1141.0	1183.7	1190.9	1160.0	1105.3	1031.6	967.4	950.8	943.7
10°	1124.3	1231.3	1316.9	1328.7	1293.1	1186.1	1067.3	957.9	931.8	915.1
12.5°	1328.7	1504.6	1609.2	1659.2	1590.2	1454.7	1257.4	1062.5	1003.1	976.9
15°	1742.3	1991.9	2191.6	2191.6	2127.4	1887.3	1637.8	1321.6	1240.8	1169.5
17.5°	2272.4	2586.2	2762.1	2743.1	2645.6	2476.8	2177.3	1723.3	1559.3	1485.6
20°	2876.2	3064.0	3104.4	3092.5	3049.7	2952.2	2745.4	2258.2	2037.1	1923.0
22.5°	3399.1	3349.2	3289.8	3242.2	3230.4	3258.9	3230.4	2854.8	2681.3	2479.2
25°	3753.3	3470.4	3292.2	3206.6	3247.0	3411.0	3589.3	3449.0	3311.2	3102.0
27.5°	3945.8	3456.2	3199.5	3111.5	3180.4	3413.4	3800.8	4038.5	3895.9	3796.1
30°	4050.4	3444.3	3140.0	3054.5	3159.0	3451.4	3948.2	4590.0	4594.8	4435.5
32.5°	4200.2	3520.3	3151.9	3073.5	3213.7	3565.5	4133.6	5151.0	5288.8	5203.3
35°	4368.9	3636.8	3206.6	3135.3	3308.8	3717.6	4340.4	5716.7	6004.3	5975.8
37.5°	4528.2	3767.6	3334.9	3266.0	3453.8	3848.4	4540.1	6272.9	6672.3	6772.1
40°	4694.6	3950.6	3729.5	3796.1	3900.7	4055.2	4718.4	6755.5	7406.8	7556.5
42.5°	5086.8	4585.2	4922.8	5048.8	5063.0	4744.5	5108.2	7373.5	8129.4	8307.6
45°	5961.5	5714.3	6681.8	6860.0	6767.3	5802.3	6047.1	8264.9	9139.6	9229.9
47.5°	7066.8	7180.9	9089.7	9705.3	9149.1	7050.2	7185.7	10140.3	10988.9	10955.6
50°	8355.2	8894.8	11823.2	13275.6	11944.5	8671.3	8497.8	12446.0	13475.2	13373.0
52.5°	9878.8	10886.7	15108.3	17171.5	15911.7	10494.5	10423.2	15500.5	16128.0	15802.3
55°	11797.1	12809.7	18887.7	21771.0	19978.7	12719.4	12964.2	19042.2	19163.4	18129.4
57.5°	14659.0	15317.4	23342.2	27045.6	24224.1	15742.9	17518.5	23755.8	22305.8	20347.2
60°	19855.1	18543.0	27647.0	32441.4	28740.4	19995.4	23525.2	26548.8	23351.7	20651.4
62.5°	21664.0	21281.3	30342.5	34723.3	31778.2	23487.2	25086.9	24965.7	21996.8	19501.0
65°	18923.3	20599.1	29860.0	33518.2	31388.4	22912.0	22512.6	23218.6	20470.8	17753.9
67.5°	17480.5	18997.0	28032.0	30192.7	29227.7	20960.4	20066.7	19874.1	17185.8	15022.7
70°	16025.8	17528.0	25381.7	25650.3	25201.0	17780.0	16605.8	15315.1	12845.3	10965.1
72.5°	14276.3	15103.5	21704.4	20430.4	19921.7	13964.9	13717.7	11533.2	9629.3	8015.3
75°	12450.8	12210.7	16921.9	14022.0	14402.3	10865.3	11585.5	8469.3	7055.0	5769.0
77.5°	9056.4	8878.1	11333.6	8516.8	9432.0	7116.8	6394.1	3380.1	3218.5	2776.3
80°	5053.5	6092.3	6120.8	4773.0	5954.4	4639.9	1599.7	111.7	71.3	104.6
82.5°	2348.5	2619.5	3318.3	2213.0	3396.7	2298.6	330.4	0.0	0.0	0.0
85°	760.6	1112.4	931.8	325.6	822.4	777.3	54.7	0.0	0.0	0.0
87.5°	45.2	92.7	23.8	0.0	0.0	0.0	0.0	0.0	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.

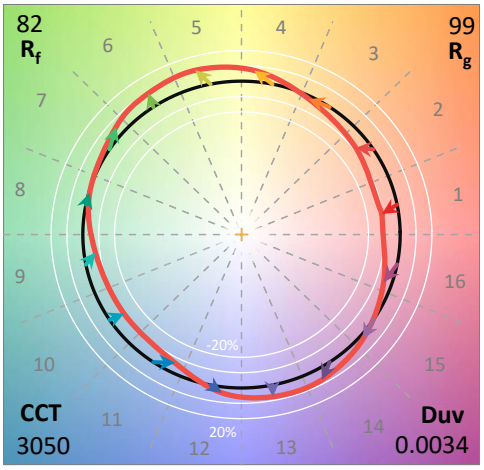
Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

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

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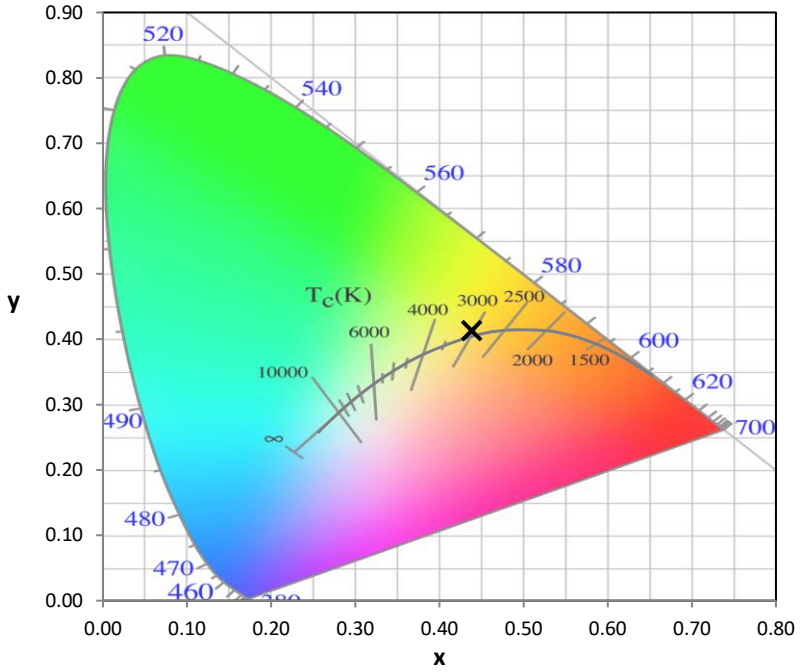
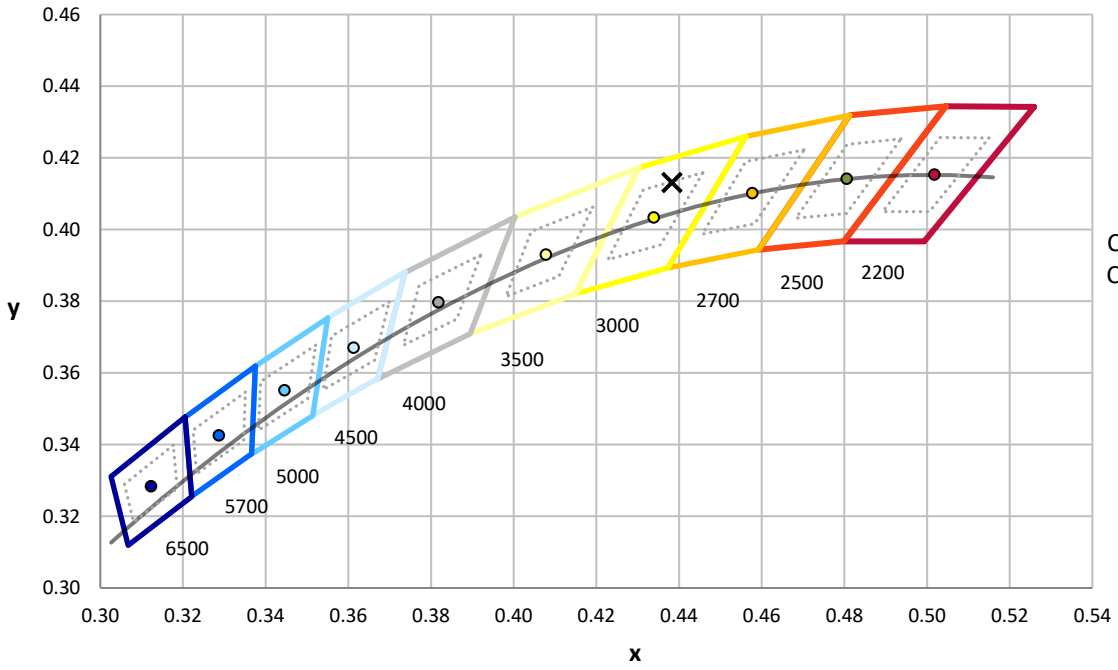
CIE 1931 Chromaticity Diagram



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

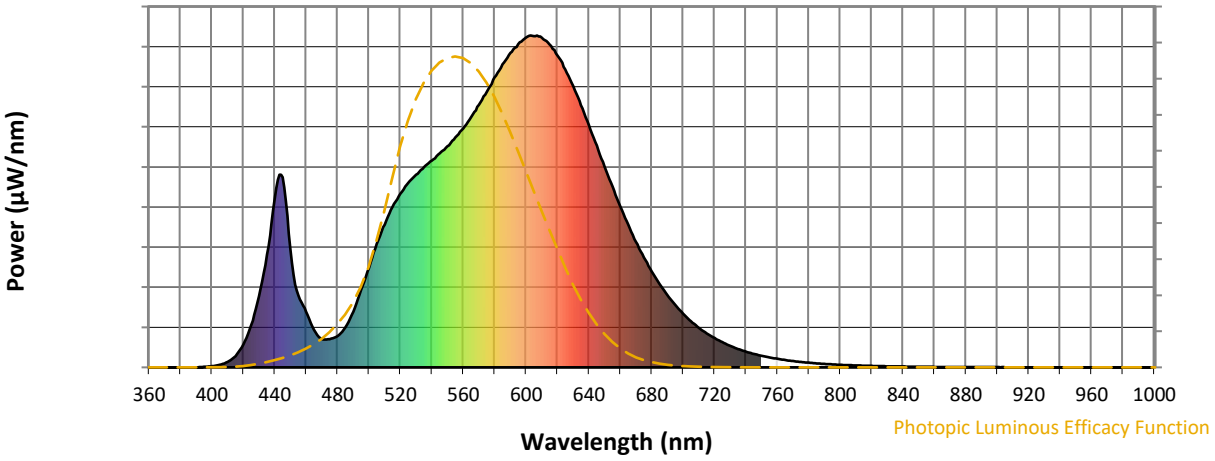


CCT = 3050K
CIE x = 0.4383
CIE y = 0.4131
Duv = 0.0034

Point lies inside the ANSI 3000K 4-step quadrangle

REPORT NUMBER: SP1-2408-195-9

Photopic Flux vs. Wavelength

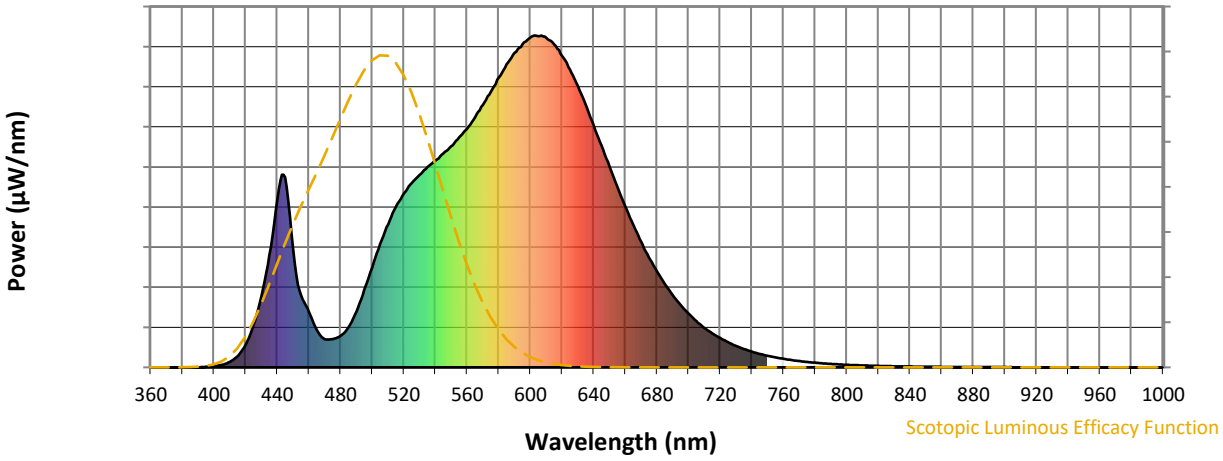


Photopic Lumens: NR

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

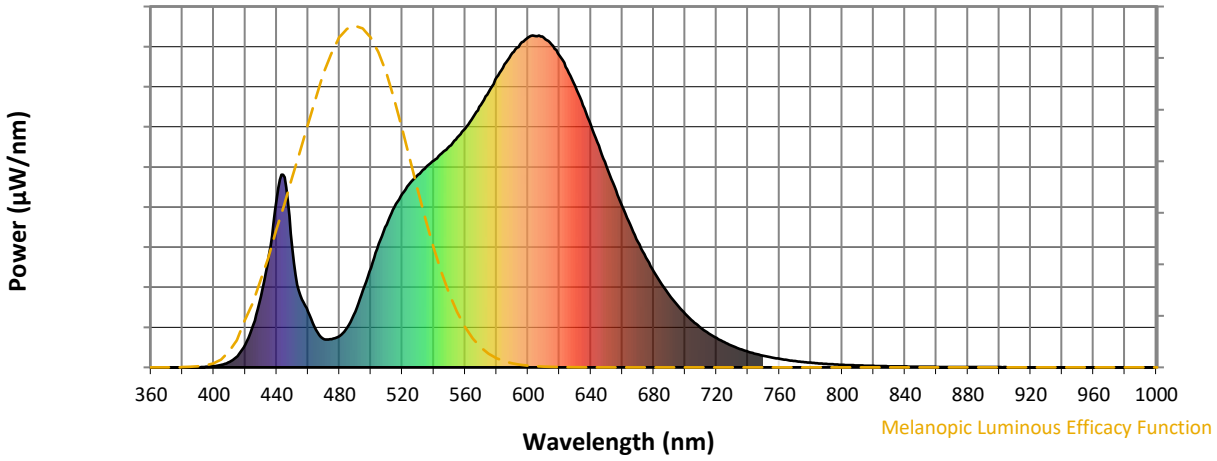


Scotopic Lumens: NR **S/P: 1.27**

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			

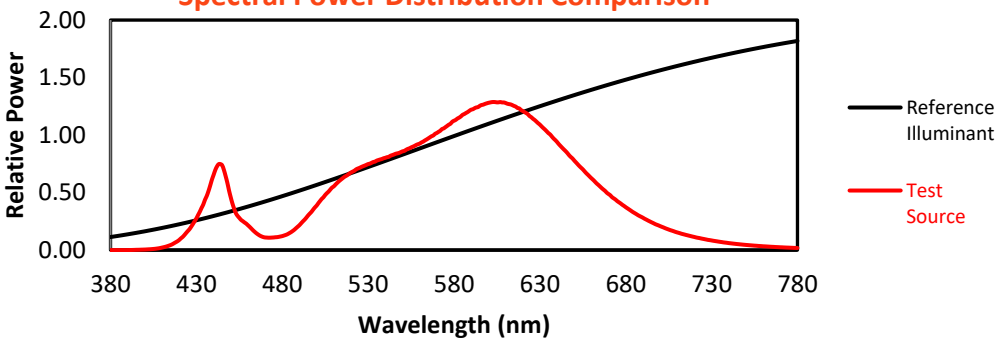
REPORT NUMBER: SP1-2408-195-9

TM-30-18

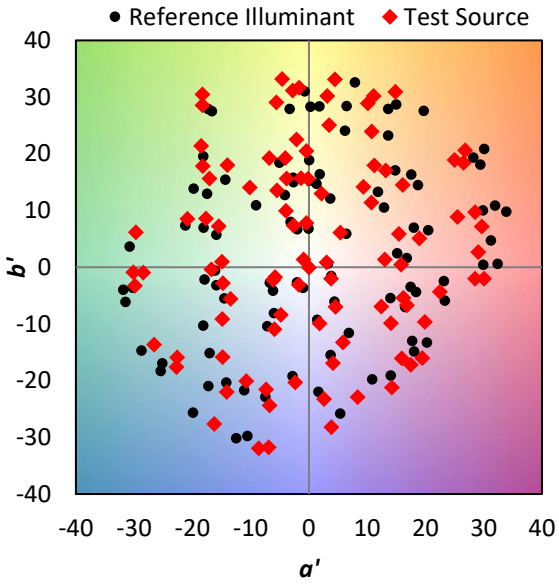
Summary

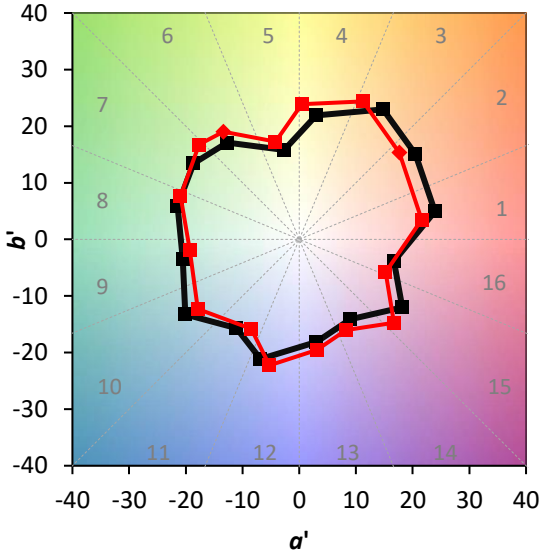
R_f = 81.5
R_g = 99.2
CIE R_a = 81.0
R_9 = 7.1

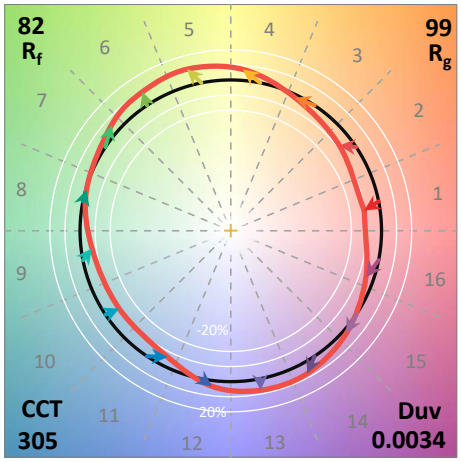
Spectral Power Distribution Comparison

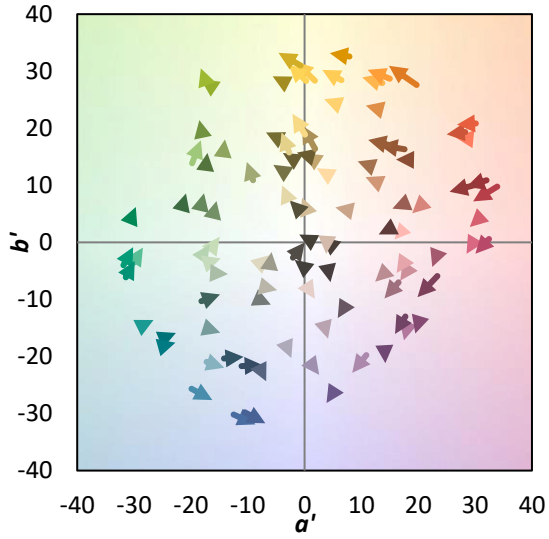


Color Vector Graphics









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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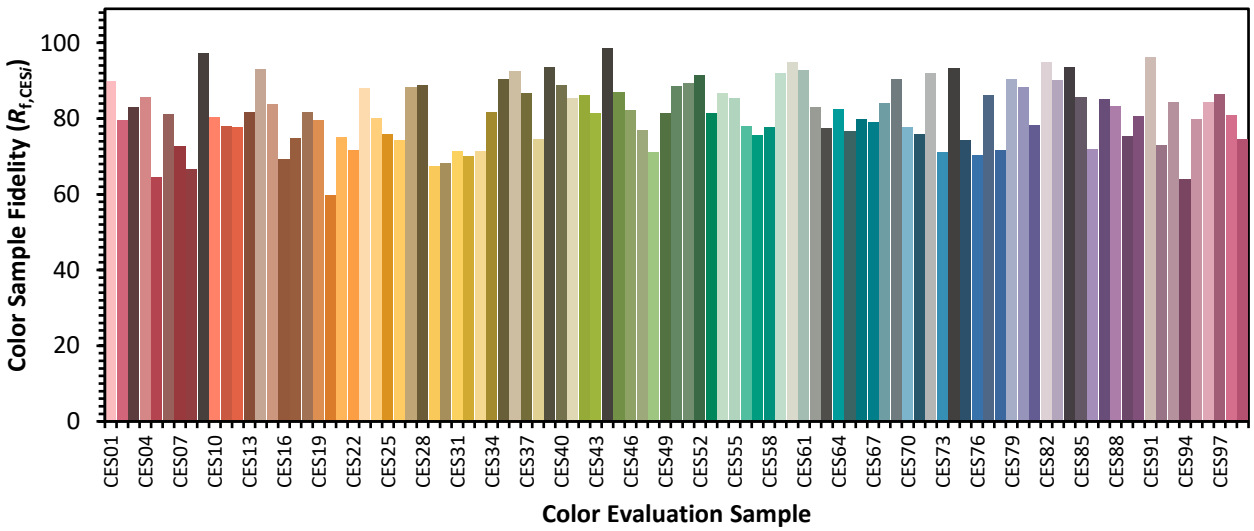

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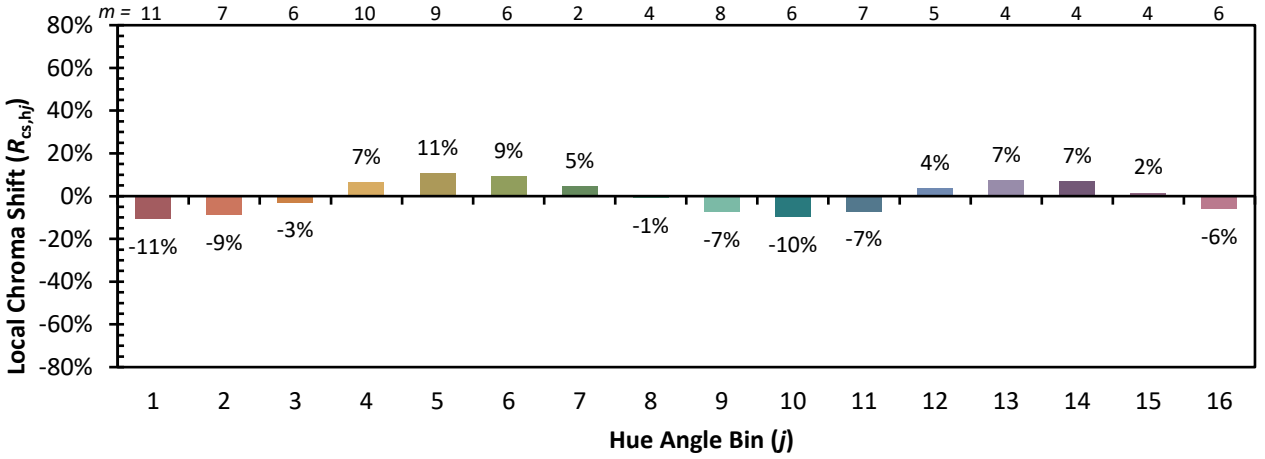
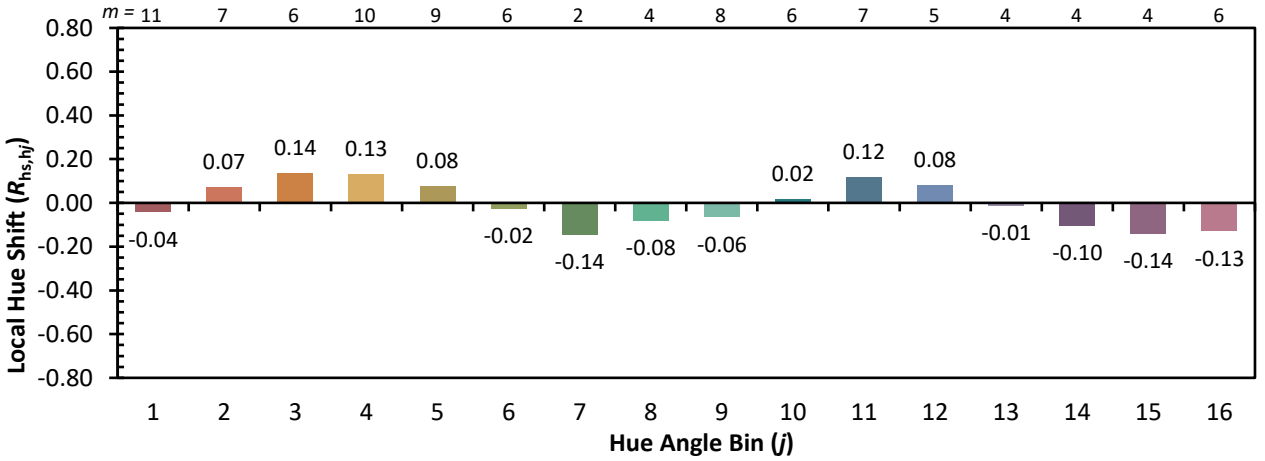
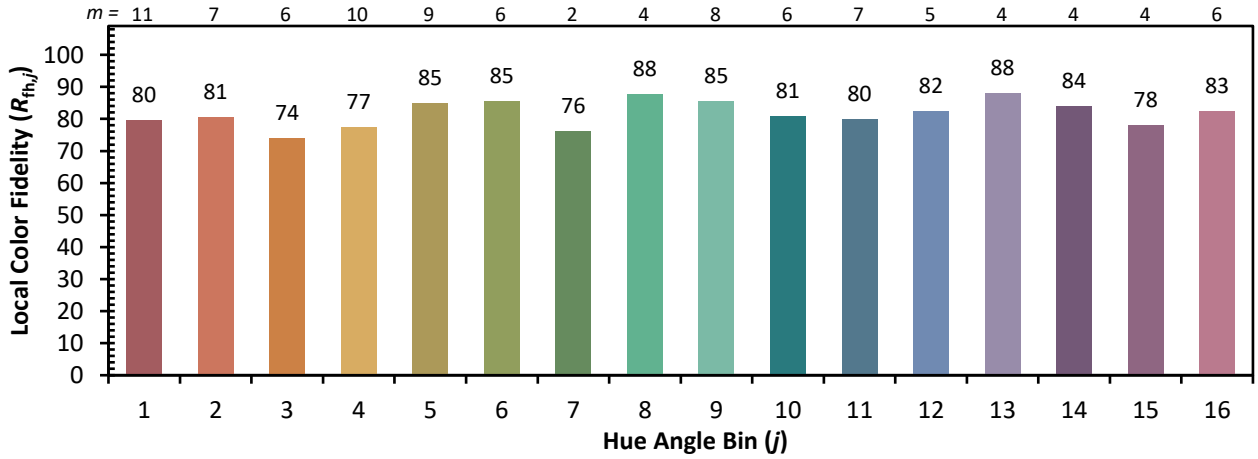
Color Rendition by Hue-Angle Bin







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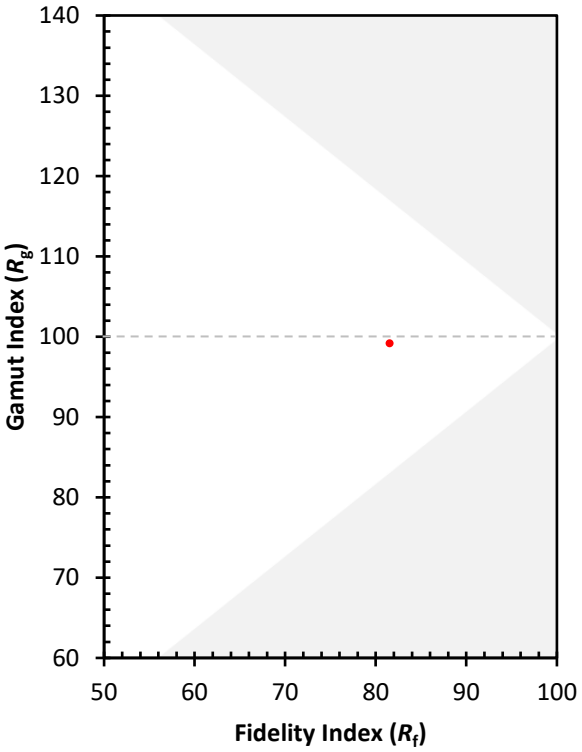
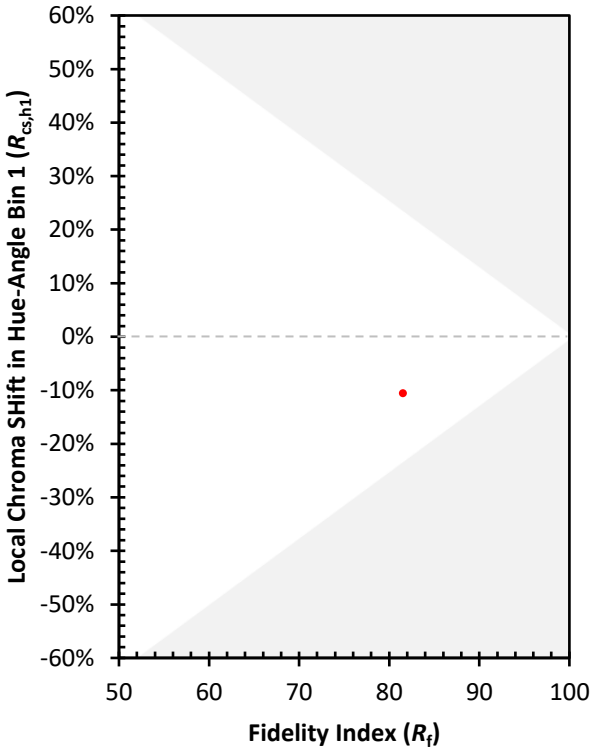
Measure Comparisons





(END OF REPORT)