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: P638485

Luminaire Tested: GWS-SA4E-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:	P638485
	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-SA4E-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:	15086.9 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:	B2 - U0 - G3

Input Watts (W):	202.6
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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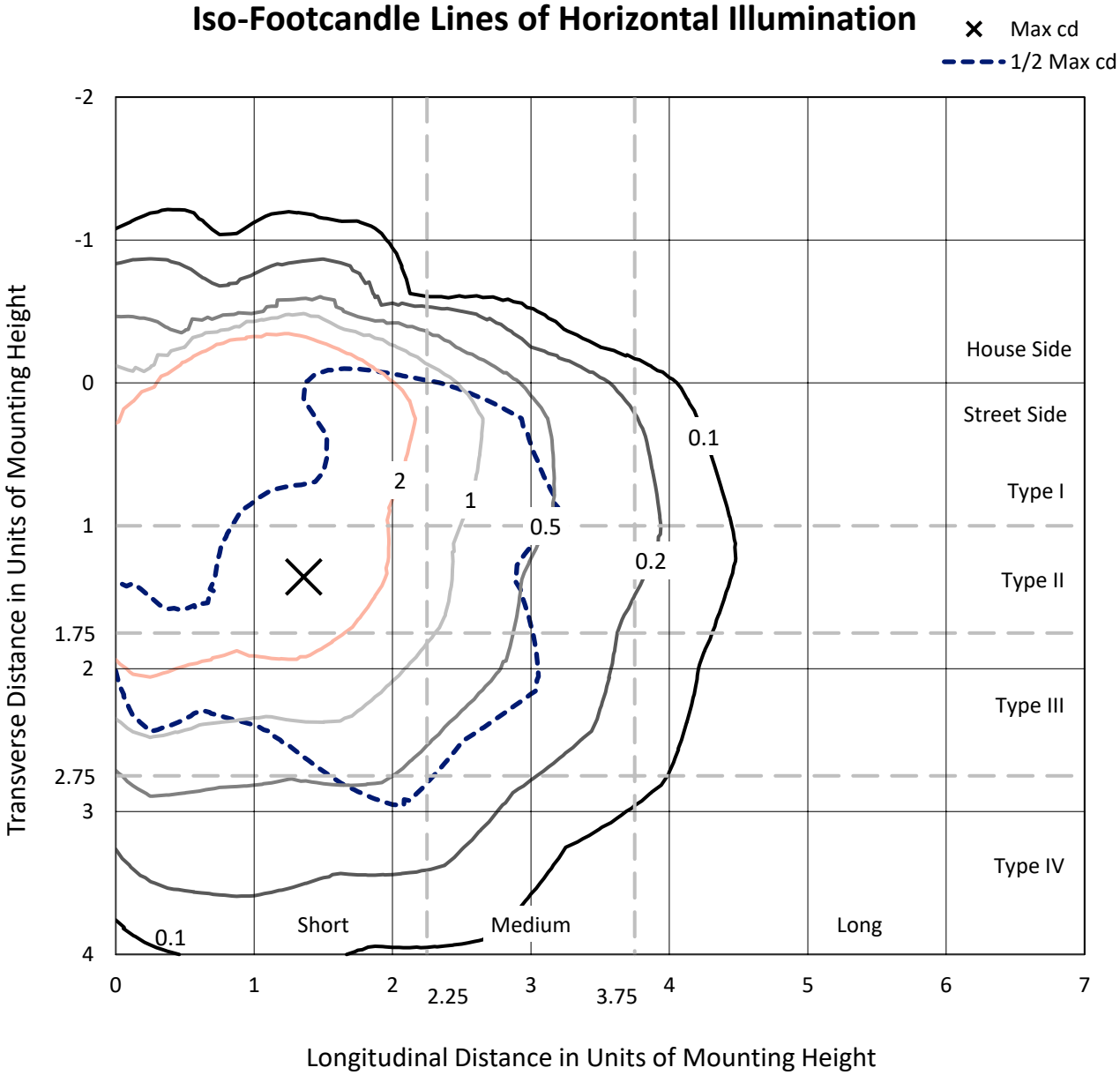
Iso-Footcandle Lines of Horizontal Illumination



Based on 25 foot mounting height. Maximum calculated value = 4.9 fc
Type IV - Short - N/A

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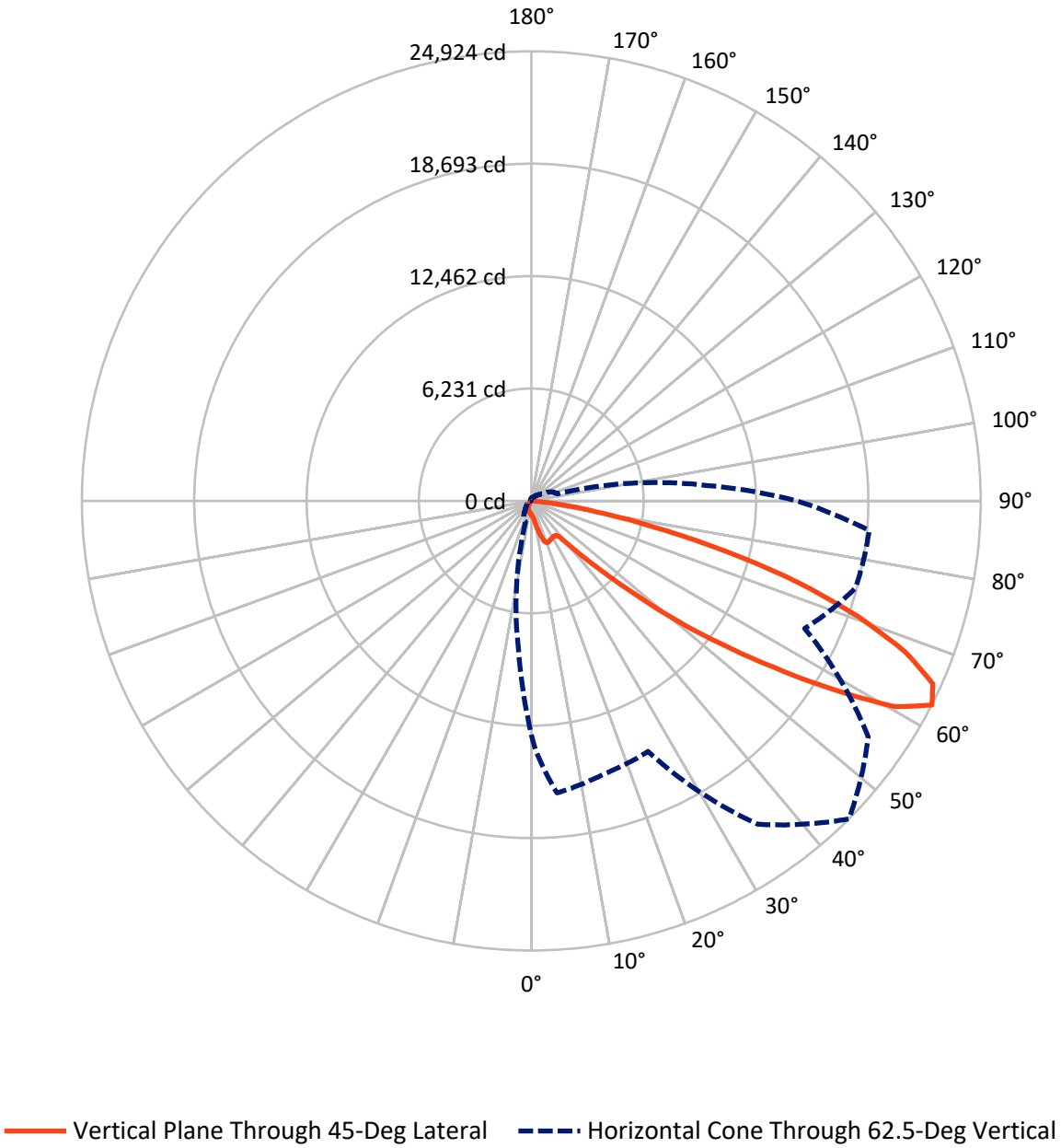
Luminous Intensity Polar Plot



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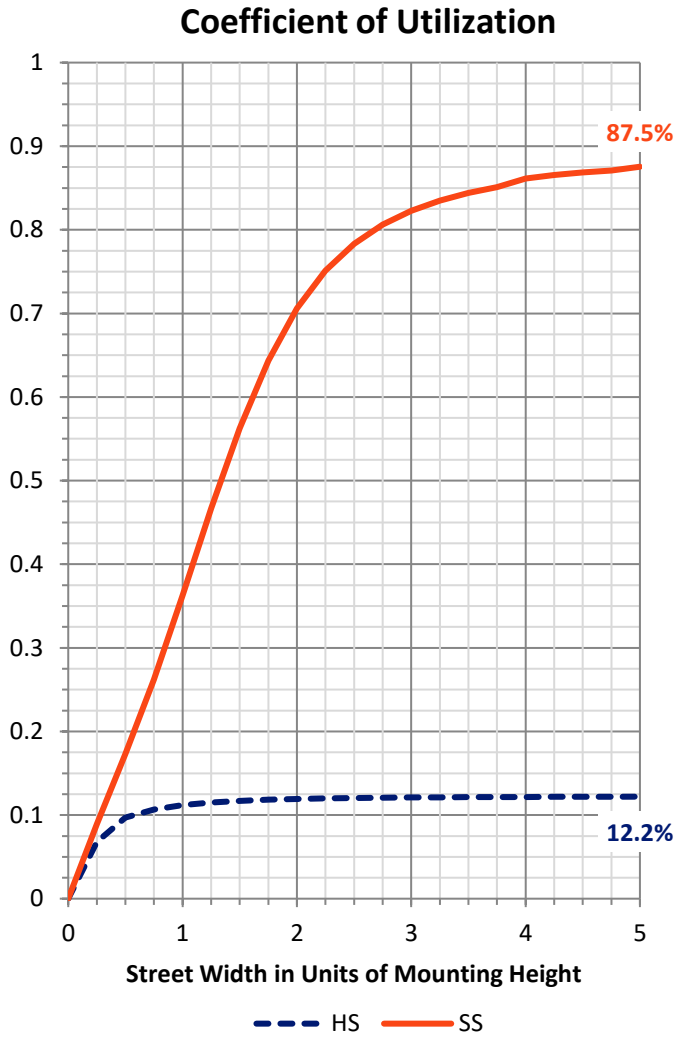
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1861.7	0.0	1861.7
	% Fixture	12.3	0.0	12.3
Street Side	Lumens	13225.2	0.0	13225.2
	% Fixture	87.7	0.0	87.7
Total	Lumens	15086.9	0.0	15086.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	69.6	0.5
10°-20°	263.0	1.7
20°-30°	571.8	3.8
30°-40°	938.5	6.2
40°-50°	1725.3	11.4
50°-60°	3705.1	24.6
60°-70°	4976.6	33.0
70°-80°	2591.3	17.2
80°-90°	245.7	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°	15086.9	100.0
0°-180°	15086.9	100.0



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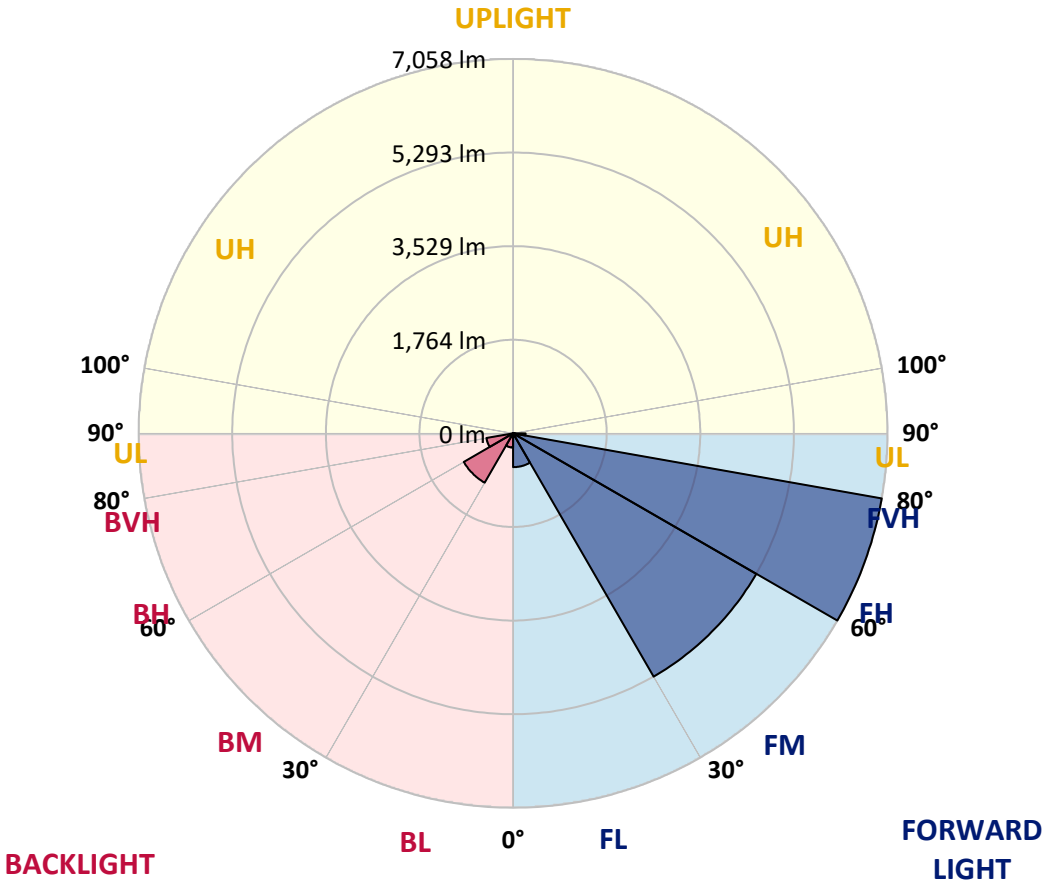
LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	637.3	4.2			
FM	(30°-60°)	5295.3	35.1			
FH	(60°-80°)	7057.8	46.8			G3/7500
FVH	(80°-90°)	234.7	1.6			G3/500
BL	(0°-30°)	267.0	1.8	B1/500		
BM	(30°-60°)	1073.6	7.1	B2/2500		
BH	(60°-80°)	510.1	3.4	B2/1000		G2/1000
BVH	(80°-90°)	11.0	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-G3
Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	784.2	784.2	784.2	784.2	784.2	784.2	784.2	784.2	784.2	784.2	784.2
2.5°	799.9	803.4	806.9	819.1	827.8	834.7	836.5	831.3	819.1	806.9	789.4
5°	775.5	779.0	791.2	824.3	857.4	883.5	892.2	887.0	857.4	819.1	779.0
7.5°	773.7	780.7	810.3	880.1	951.5	1005.5	1019.5	1007.3	951.5	874.8	792.9
10°	836.5	848.7	892.2	1017.7	1148.4	1244.3	1282.6	1230.3	1141.5	1002.0	867.9
12.5°	1000.3	1021.2	1104.9	1287.8	1490.0	1617.2	1669.5	1605.0	1465.6	1263.4	1050.8
15°	1258.2	1289.6	1415.1	1688.7	1927.4	2040.7	2058.1	2021.5	1859.4	1636.4	1350.6
17.5°	1622.4	1667.7	1862.9	2141.7	2314.3	2354.4	2349.1	2310.8	2192.3	2038.9	1768.8
20°	2058.1	2112.1	2303.8	2533.8	2551.3	2504.2	2478.1	2455.4	2415.3	2389.2	2178.3
22.5°	2497.3	2563.5	2763.9	2821.4	2664.5	2528.6	2464.1	2481.6	2540.8	2669.8	2584.4
25°	2934.7	2997.4	3185.6	3030.5	2716.8	2490.3	2408.4	2450.2	2591.4	2870.2	2980.0
27.5°	3445.3	3492.3	3603.8	3173.4	2725.5	2458.9	2378.7	2443.2	2615.8	2995.7	3413.9
30°	3976.8	4004.7	3950.6	3211.7	2695.9	2411.9	2349.1	2443.2	2657.6	3079.3	3739.8
32.5°	4367.1	4372.4	4196.4	3215.2	2680.2	2373.5	2321.2	2432.8	2697.7	3149.0	4055.2
35°	4769.7	4743.6	4431.6	3267.5	2722.1	2387.5	2342.2	2462.4	2760.4	3230.9	4332.3
37.5°	5177.5	5130.4	4694.8	3352.9	2830.1	2539.1	2511.2	2614.0	2861.5	3344.2	4637.3
40°	5595.7	5531.2	4968.4	3481.9	3070.6	3054.9	3150.8	3138.6	3138.6	3488.8	4950.9
42.5°	6106.3	6031.4	5372.7	3846.1	3631.7	3982.0	4243.4	4081.3	3781.6	3821.7	5358.7
45°	6780.7	6716.3	6073.2	4543.1	4511.8	5316.9	5668.9	5348.3	4602.4	4590.2	6040.1
47.5°	7859.5	7847.3	7190.3	5351.7	5588.8	7016.0	7695.6	7078.7	5538.2	5404.0	7329.7
50°	9375.6	9339.0	8582.7	6299.8	6869.6	9121.2	10334.1	9305.9	6669.2	6353.8	9056.7
52.5°	11083.4	11121.7	10532.7	7334.9	8230.6	11463.3	13152.0	11857.1	7897.8	7561.5	11229.8
55°	12691.9	12911.5	12756.4	8546.1	9560.3	14049.4	16246.9	14655.9	9419.1	9142.1	13666.0
57.5°	13950.1	14568.7	15656.2	10306.2	11123.5	17074.7	19702.7	17689.9	11194.9	11709.0	16982.4
60°	14019.8	14838.9	17364.0	13988.4	13134.5	19669.6	23153.2	20654.2	13986.7	16067.4	19580.7
62.5°	12969.0	13847.3	16252.2	15661.4	15325.1	21877.5	24923.7	22815.1	16733.1	18620.5	18810.4
65°	11766.5	12653.6	15011.4	13763.6	15070.6	21783.4	24474.1	22865.6	16982.4	16884.8	17432.0
67.5°	9948.9	10745.3	12880.1	12183.0	13890.8	20732.6	22396.8	21424.4	15645.7	15792.1	16036.1
70°	7261.7	8028.5	10009.9	10044.8	12130.7	18838.3	19244.3	19110.2	14408.4	14563.5	13866.5
72.5°	5245.4	5892.0	7601.5	8237.6	9684.0	15797.3	15516.8	16034.3	12362.5	12970.7	11137.4
75°	3771.1	4255.6	5576.6	7165.9	7676.5	11731.7	11107.8	12418.3	9919.3	11168.8	8373.5
77.5°	1530.1	1700.8	2194.0	4827.2	5045.0	7892.6	6799.9	9020.1	7071.8	7338.4	4058.7
80°	62.7	69.7	90.6	2492.0	3459.2	4440.3	3638.7	4822.0	4670.4	2955.6	958.5
82.5°	7.0	7.0	15.7	718.0	1514.4	2450.2	1714.8	2777.8	2364.8	1253.0	435.7
85°	1.7	1.7	3.5	81.9	355.5	392.1	231.8	852.2	1099.6	512.3	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.7	15.7	17.4	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°	784.2	784.2	784.2	784.2	784.2	784.2	784.2	784.2	784.2	784.2	784.2
2.5°	789.4	780.7	770.3	759.8	754.6	740.6	735.4	731.9	728.4	730.2	730.2
5°	763.3	744.1	721.5	698.8	686.6	672.7	665.7	662.2	664.0	670.9	670.9
7.5°	759.8	723.2	674.4	644.8	630.8	620.4	613.4	609.9	611.7	620.4	623.9
10°	817.3	752.8	665.7	615.2	599.5	589.0	582.1	576.8	573.3	580.3	582.1
12.5°	941.0	852.2	707.5	611.7	583.8	569.9	564.6	554.2	548.9	552.4	554.2
15°	1197.2	1043.9	791.2	625.6	569.9	554.2	545.5	536.7	528.0	526.3	528.0
17.5°	1531.8	1312.2	918.4	658.7	559.4	540.2	528.0	515.8	503.6	501.9	500.1
20°	1946.6	1641.6	1096.1	711.0	550.7	528.0	510.6	493.2	477.5	472.3	472.3
22.5°	2324.7	2038.9	1324.4	775.5	538.5	510.6	489.7	468.8	451.4	442.6	440.9
25°	2786.5	2460.7	1598.0	850.4	521.1	487.9	465.3	444.4	427.0	416.5	413.0
27.5°	3251.8	2905.0	1908.2	948.0	500.1	465.3	444.4	425.2	406.0	393.8	390.4
30°	3703.2	3384.3	2256.8	1070.0	484.5	442.6	425.2	406.0	388.6	369.4	364.2
32.5°	4187.6	3874.0	2647.1	1205.9	472.3	427.0	407.8	390.4	367.7	350.3	341.6
35°	4654.7	4379.3	3077.6	1338.4	460.1	413.0	392.1	374.7	350.3	331.1	318.9
37.5°	5125.2	4893.4	3527.2	1418.5	442.6	393.8	374.7	360.7	332.9	310.2	296.3
40°	5623.6	5424.9	4013.4	1385.4	427.0	372.9	362.5	346.8	315.4	289.3	271.9
42.5°	6170.8	5932.1	4508.3	1258.2	413.0	355.5	345.0	329.4	299.7	268.4	245.7
45°	6859.2	6488.0	4914.3	1066.5	420.0	338.1	317.2	313.7	285.8	245.7	217.8
47.5°	8042.4	7341.9	5229.8	942.8	467.0	318.9	294.5	303.2	273.6	223.1	191.7
50°	9853.1	8756.9	5524.3	934.1	538.5	310.2	273.6	296.3	261.4	200.4	169.0
52.5°	11578.3	10194.6	5712.5	1010.8	601.2	332.9	252.7	287.5	252.7	184.7	153.4
55°	13228.6	11024.2	5376.1	1066.5	660.5	400.8	237.0	273.6	242.2	176.0	148.1
57.5°	15007.9	11393.6	4233.0	1179.8	702.3	458.3	240.5	252.7	228.3	170.8	146.4
60°	15539.4	10921.3	2554.8	1327.9	679.6	475.7	266.6	224.8	209.1	160.3	141.2
62.5°	*14713.4*	*9800.8*	*1507.4*	*1209.4*	*660.5*	*449.6*	*305.0*	*207.4*	*190.0*	*146.4*	*130.7*
65°	13477.8	8279.4	982.9	1021.2	700.6	400.8	324.1	198.7	172.5	132.4	115.0
67.5°	12066.3	6669.2	688.4	603.0	646.5	360.7	273.6	196.9	155.1	111.5	94.1
70°	10163.3	4994.5	484.5	399.1	538.5	320.7	212.6	191.7	135.9	90.6	73.2
72.5°	7852.5	3126.4	360.7	257.9	383.4	261.4	169.0	162.1	109.8	74.9	55.8
75°	5790.9	1782.8	254.4	186.5	252.7	198.7	125.5	115.0	94.1	71.4	50.5
77.5°	3023.5	892.2	158.6	142.9	144.6	123.7	90.6	83.6	87.1	71.4	47.1
80°	580.3	177.8	95.8	104.6	78.4	78.4	66.2	69.7	76.7	57.5	40.1
82.5°	242.2	38.3	52.3	59.3	48.8	54.0	54.0	55.8	54.0	41.8	29.6
85°	0.0	0.0	22.7	24.4	33.1	33.1	27.9	27.9	27.9	24.4	17.4
87.5°	0.0	0.0	0.0	0.0	1.7	5.2	10.5	12.2	13.9	10.5	7.0
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):

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	784.2	784.2	784.2	784.2	784.2	784.2	784.2	784.2	784.2	784.2	784.2
2.5°	728.4	725.0	730.2	733.7	737.2	737.2	733.7	730.2	725.0	730.2	725.0
5°	672.7	677.9	686.6	690.1	693.6	686.6	683.1	672.7	664.0	665.7	662.2
7.5°	629.1	634.3	644.8	651.8	651.8	648.3	637.8	627.4	613.4	613.4	611.7
10°	589.0	596.0	608.2	616.9	620.4	616.9	606.5	592.5	580.3	580.3	575.1
12.5°	555.9	564.6	578.6	590.8	594.3	590.8	580.3	566.4	552.4	552.4	548.9
15°	528.0	538.5	554.2	568.1	573.3	568.1	555.9	538.5	524.5	526.3	521.1
17.5°	501.9	510.6	531.5	547.2	552.4	547.2	531.5	508.9	494.9	498.4	494.9
20°	472.3	482.7	503.6	521.1	526.3	521.1	503.6	479.2	465.3	465.3	467.0
22.5°	440.9	451.4	472.3	484.5	491.4	486.2	468.8	446.1	432.2	432.2	433.9
25°	413.0	418.2	433.9	446.1	447.9	442.6	428.7	411.3	400.8	406.0	407.8
27.5°	386.9	386.9	393.8	400.8	399.1	393.8	388.6	374.7	372.9	378.2	383.4
30°	359.0	350.3	346.8	341.6	339.8	338.1	343.3	343.3	346.8	353.8	359.0
32.5°	334.6	317.2	301.5	285.8	277.1	284.1	298.0	310.2	322.4	332.9	338.1
35°	306.7	278.8	252.7	231.8	217.8	228.3	250.9	273.6	294.5	308.5	317.2
37.5°	278.8	238.7	207.4	181.2	170.8	179.5	203.9	235.3	266.6	284.1	296.3
40°	249.2	198.7	162.1	141.2	130.7	139.4	163.8	195.2	237.0	259.7	275.3
42.5°	219.6	163.8	130.7	109.8	104.6	109.8	129.0	160.3	205.6	233.5	254.4
45°	190.0	135.9	104.6	88.9	83.6	88.9	104.6	130.7	176.0	207.4	231.8
47.5°	163.8	115.0	87.1	73.2	69.7	74.9	87.1	109.8	148.1	179.5	207.4
50°	142.9	101.1	74.9	62.7	59.3	64.5	74.9	92.4	125.5	153.4	183.0
52.5°	129.0	94.1	66.2	54.0	52.3	55.8	64.5	78.4	106.3	130.7	158.6
55°	125.5	94.1	61.0	48.8	47.1	50.5	57.5	68.0	92.4	113.3	137.7
57.5°	129.0	101.1	57.5	41.8	40.1	43.6	50.5	59.3	80.2	97.6	120.2
60°	129.0	102.8	50.5	33.1	31.4	34.9	41.8	52.3	71.4	85.4	104.6
62.5°	*116.8*	*94.1*	*41.8*	*26.1*	*22.7*	*26.1*	*34.9*	*43.6*	*62.7*	*76.7*	*92.4*
65°	101.1	80.2	34.9	19.2	15.7	19.2	27.9	36.6	54.0	66.2	83.6
67.5°	81.9	61.0	26.1	13.9	10.5	13.9	20.9	29.6	45.3	57.5	74.9
70°	61.0	43.6	20.9	12.2	10.5	12.2	19.2	27.9	40.1	52.3	69.7
72.5°	45.3	29.6	17.4	12.2	8.7	12.2	17.4	26.1	38.3	50.5	66.2
75°	38.3	24.4	15.7	10.5	8.7	10.5	15.7	24.4	34.9	47.1	62.7
77.5°	36.6	22.7	13.9	8.7	7.0	8.7	13.9	20.9	31.4	43.6	61.0
80°	31.4	19.2	12.2	7.0	5.2	7.0	12.2	17.4	24.4	33.1	47.1
82.5°	24.4	15.7	8.7	3.5	1.7	3.5	8.7	10.5	15.7	19.2	27.9
85°	15.7	8.7	3.5	0.0	0.0	0.0	3.5	7.0	7.0	8.7	13.9
87.5°	7.0	1.7	0.0	0.0	0.0	0.0	0.0	0.0	1.7	3.5	5.2
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: P638485
CATALOG NUMBER: GWS-SA4E-830-U-SLR-W-HSS

CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	784.2	784.2	784.2	784.2	784.2	784.2	784.2	784.2	784.2	784.2
2.5°	735.4	737.2	740.6	745.9	758.1	768.5	779.0	792.9	799.9	799.9
5°	665.7	667.4	669.2	676.2	693.6	707.5	730.2	758.1	772.0	775.5
7.5°	611.7	615.2	618.6	623.9	641.3	660.5	690.1	742.4	768.5	773.7
10°	580.3	585.5	592.5	603.0	618.6	639.6	690.1	784.2	827.8	836.5
12.5°	555.9	564.6	571.6	583.8	603.0	636.1	737.2	902.7	979.4	1000.3
15°	531.5	542.0	552.4	564.6	585.5	648.3	827.8	1115.3	1242.5	1258.2
17.5°	507.1	519.3	533.3	547.2	573.3	677.9	970.7	1409.8	1587.6	1622.4
20°	479.2	494.9	514.1	531.5	561.1	725.0	1169.3	1760.1	1983.2	2058.1
22.5°	449.6	468.8	491.4	514.1	547.2	782.5	1409.8	2136.5	2448.5	2497.3
25°	425.2	444.4	465.3	487.9	524.5	852.2	1700.8	2603.6	2887.6	2934.7
27.5°	402.6	421.7	440.9	461.8	501.9	942.8	2051.1	3100.2	3396.5	3445.3
30°	378.2	400.8	420.0	440.9	481.0	1054.3	2455.4	3650.9	3931.5	3976.8
32.5°	357.2	379.9	399.1	420.0	465.3	1176.3	2880.6	4138.8	4367.1	4367.1
35°	339.8	364.2	378.2	406.0	453.1	1254.7	3283.2	4604.1	4776.7	4769.7
37.5°	320.7	350.3	360.7	379.9	437.4	1263.4	3661.4	5095.6	5222.8	5177.5
40°	301.5	332.9	348.5	359.0	420.0	1192.0	4076.1	5546.9	5655.0	5595.7
42.5°	284.1	308.5	331.1	343.3	409.5	1066.5	4409.0	6029.6	6158.6	6106.3
45°	266.6	287.5	301.5	324.1	416.5	979.4	4694.8	6592.5	6819.1	6780.7
47.5°	249.2	266.6	275.3	310.2	463.6	939.3	4869.0	7463.9	7890.8	7859.5
50°	230.0	250.9	250.9	306.7	533.3	953.2	5020.6	8725.6	9386.0	9375.6
52.5°	210.9	233.5	230.0	332.9	587.3	1017.7	5193.2	9839.1	10987.6	11083.4
55°	191.7	212.6	216.1	385.1	618.6	1073.5	4525.7	10307.9	12355.6	12691.9
57.5°	170.8	183.0	224.8	425.2	608.2	1235.6	3100.2	10393.3	13228.6	13950.1
60°	148.1	158.6	254.4	416.5	575.1	1141.5	1951.8	9626.5	13104.9	14019.8
62.5°	*129.0*	*146.4*	*268.4*	*367.7*	*585.5*	*989.8*	*1244.3*	*8204.5*	*11925.1*	*12969.0*
65°	113.3	141.2	244.0	332.9	592.5	670.9	840.0	6674.4	10773.2	11766.5
67.5°	101.1	156.8	200.4	296.3	508.9	472.3	576.8	5186.2	9058.4	9948.9
70°	92.4	160.3	163.8	254.4	393.8	303.2	379.9	3490.6	6244.0	7261.7
72.5°	83.6	118.5	123.7	203.9	254.4	184.7	245.7	1997.1	4551.9	5245.4
75°	80.2	80.2	85.4	132.4	141.2	134.2	158.6	1192.0	3264.0	3771.1
77.5°	74.9	61.0	54.0	85.4	76.7	95.8	94.1	529.8	1415.1	1530.1
80°	59.3	43.6	36.6	54.0	52.3	64.5	55.8	43.6	64.5	62.7
82.5°	36.6	27.9	26.1	33.1	29.6	33.1	26.1	7.0	7.0	7.0
85°	17.4	15.7	13.9	13.9	15.7	13.9	10.5	3.5	1.7	1.7
87.5°	8.7	8.7	7.0	5.2	7.0	7.0	5.2	1.7	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.

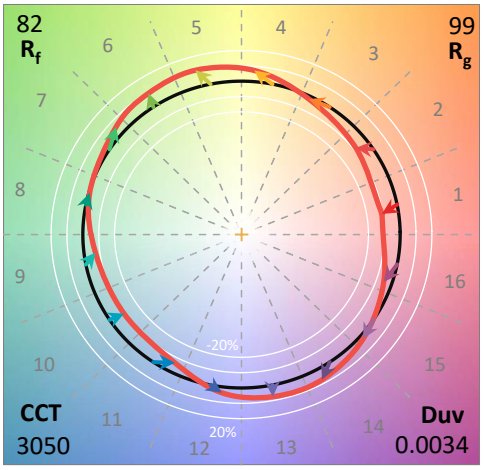
Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

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

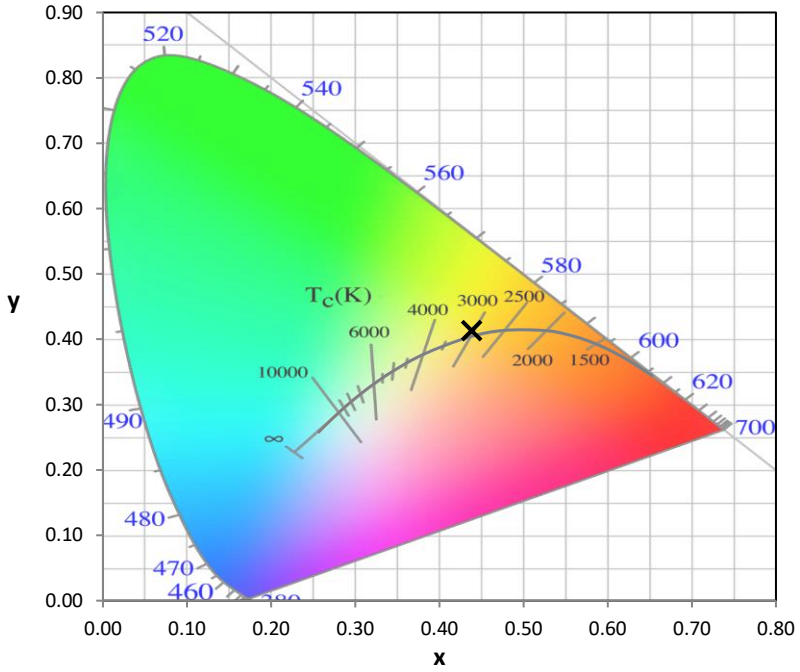
Stabilization Time:	20M
Operation Time:	1H 20M
Sphere Temperature (°C):	24.2

REPORT NUMBER: SP1-2408-195-9

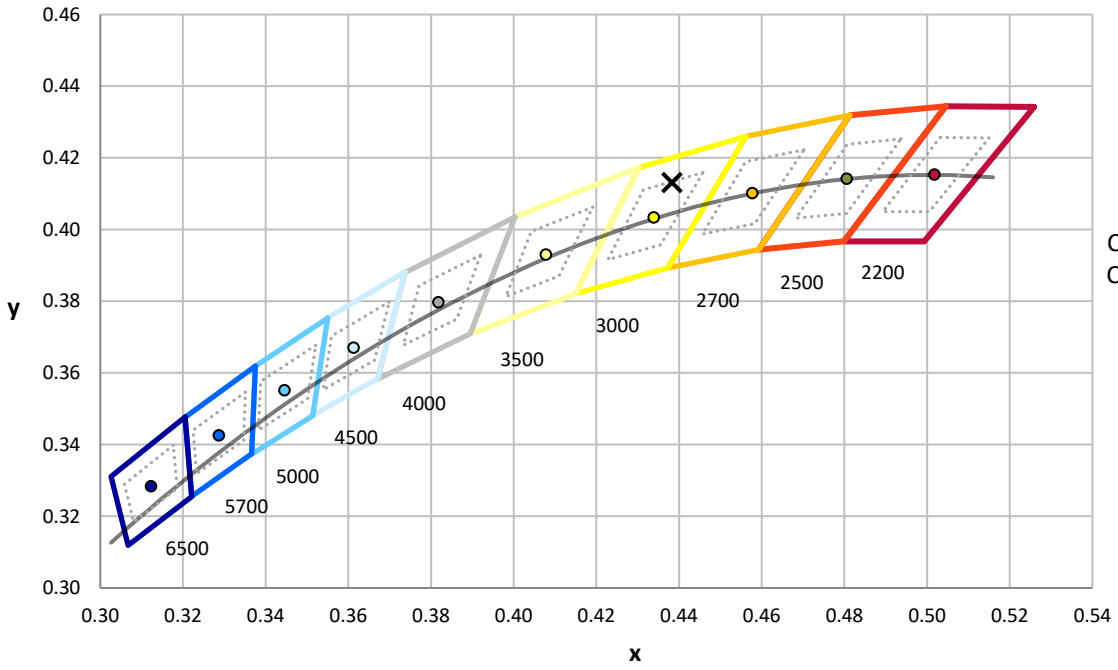
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

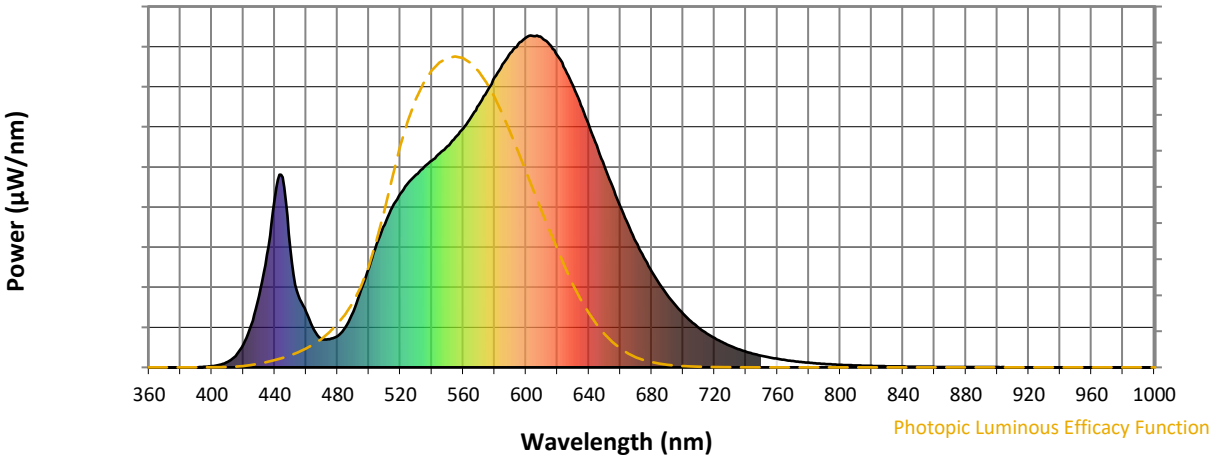


CCT = 3050K
CIE x = 0.4383
CIE y = 0.4131
Duv = 0.0034

Point lies inside the ANSI 3000K 4-step quadrangle

REPORT NUMBER: SP1-2408-195-9

Photopic Flux vs. Wavelength

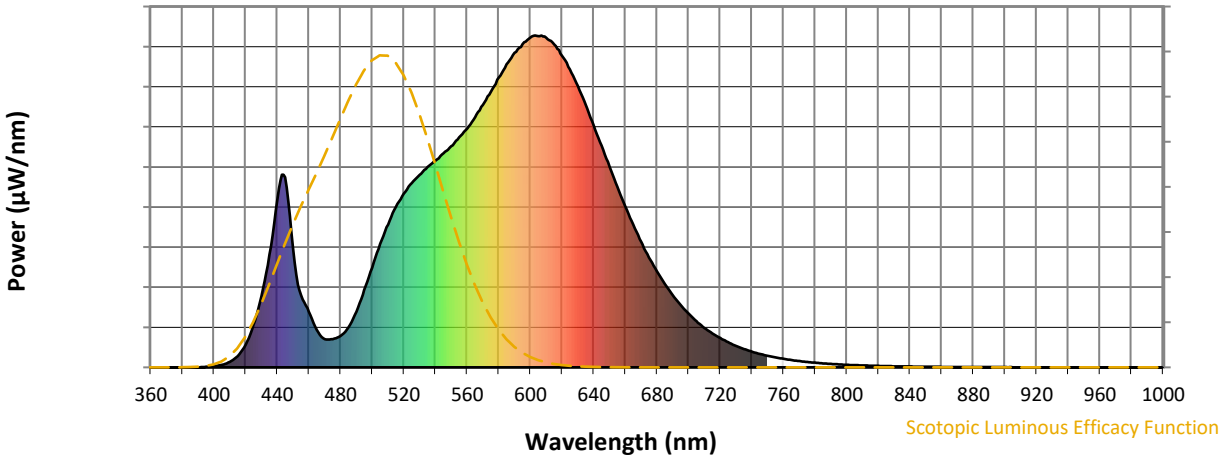


Photopic Lumens: NR

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

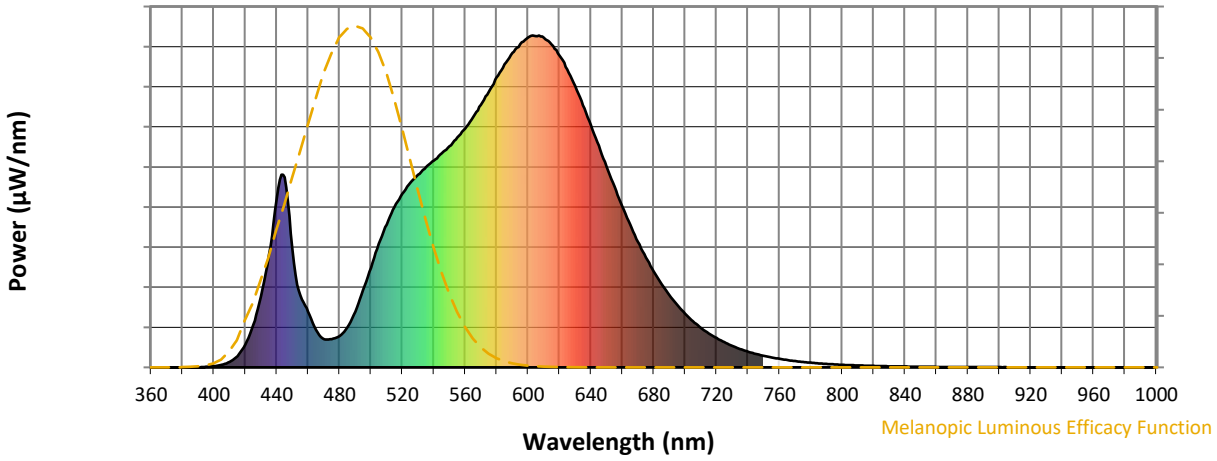


Scotopic Lumens: NR **S/P: 1.27**

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			

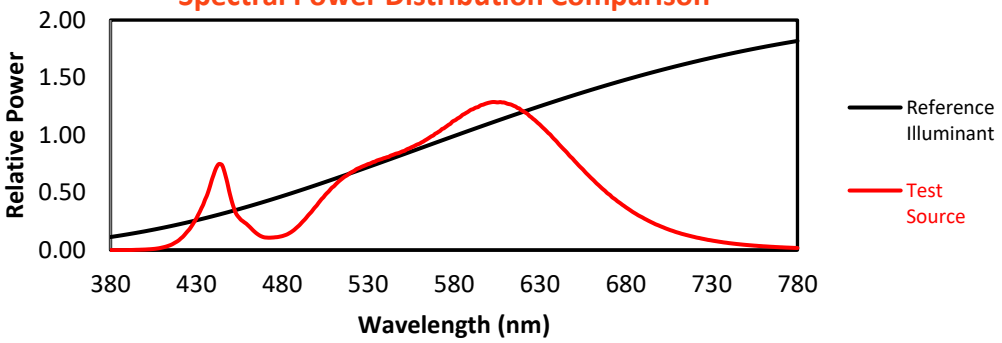
REPORT NUMBER: SP1-2408-195-9

TM-30-18

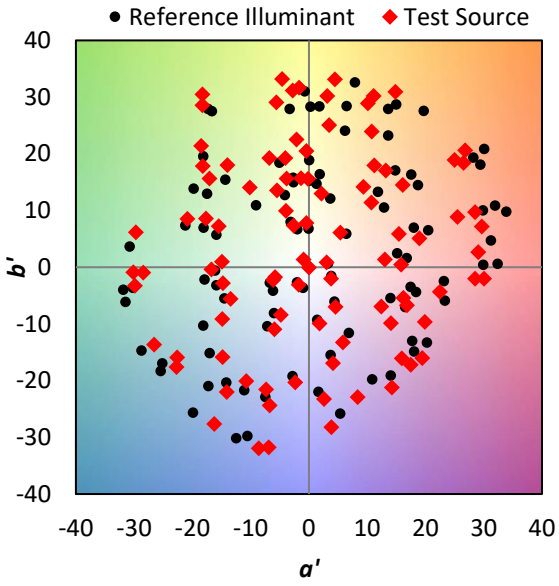
Summary

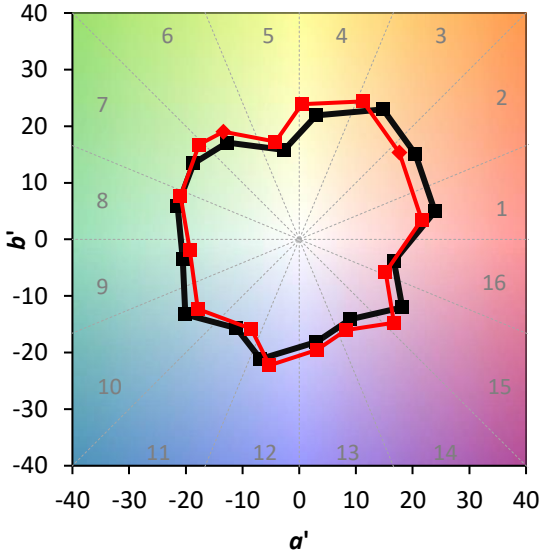
R_f = 81.5
R_g = 99.2
CIE R_a = 81.0
R_9 = 7.1

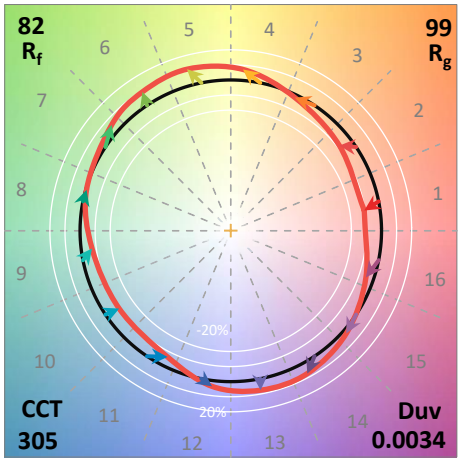
Spectral Power Distribution Comparison

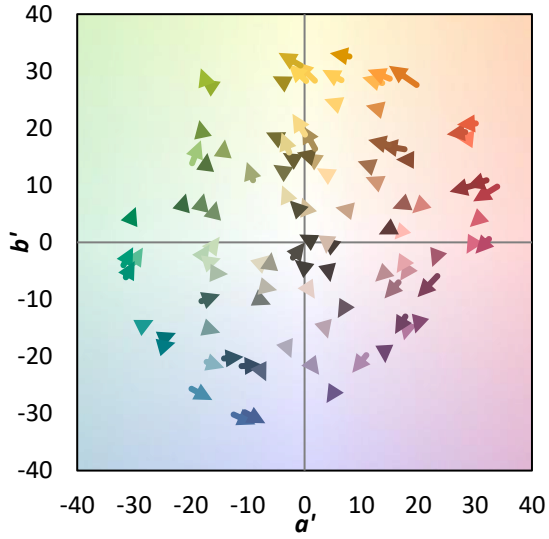


Color Vector Graphics









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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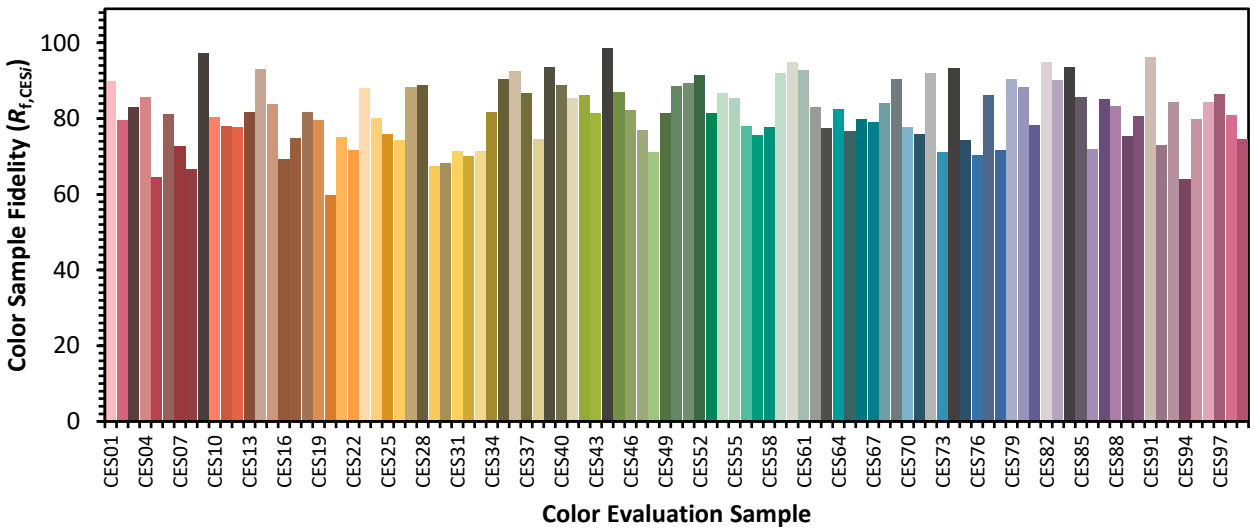

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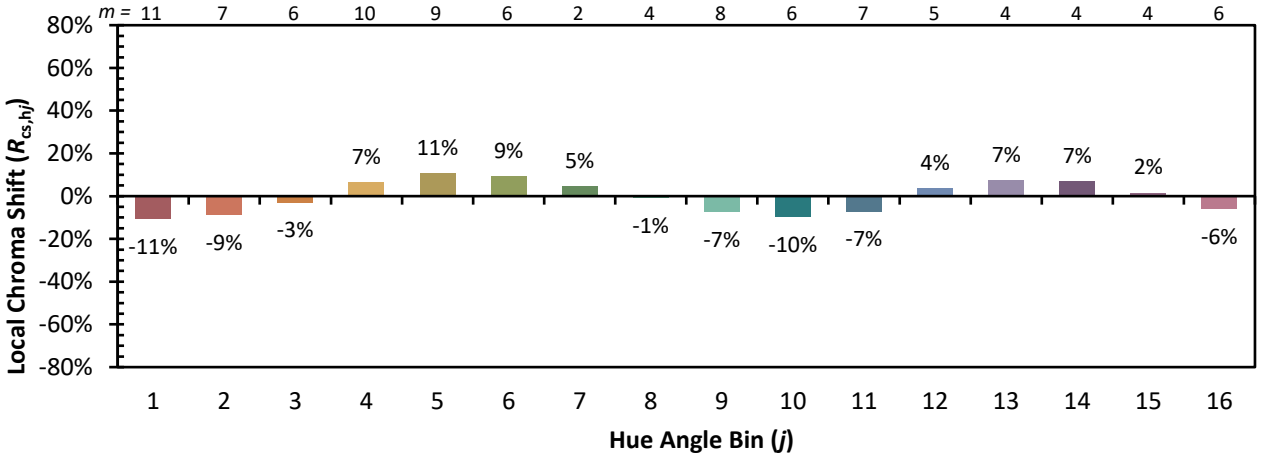
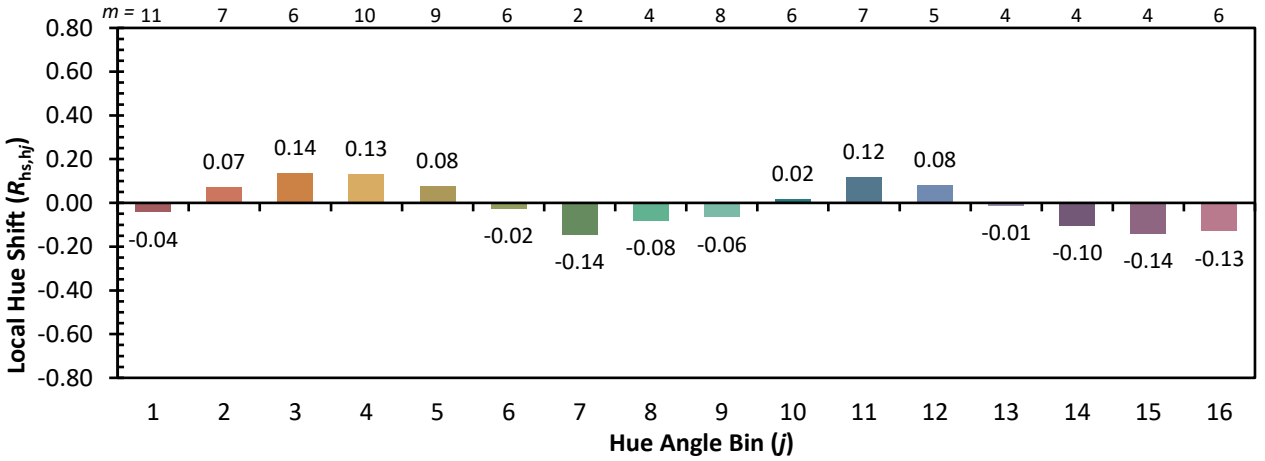
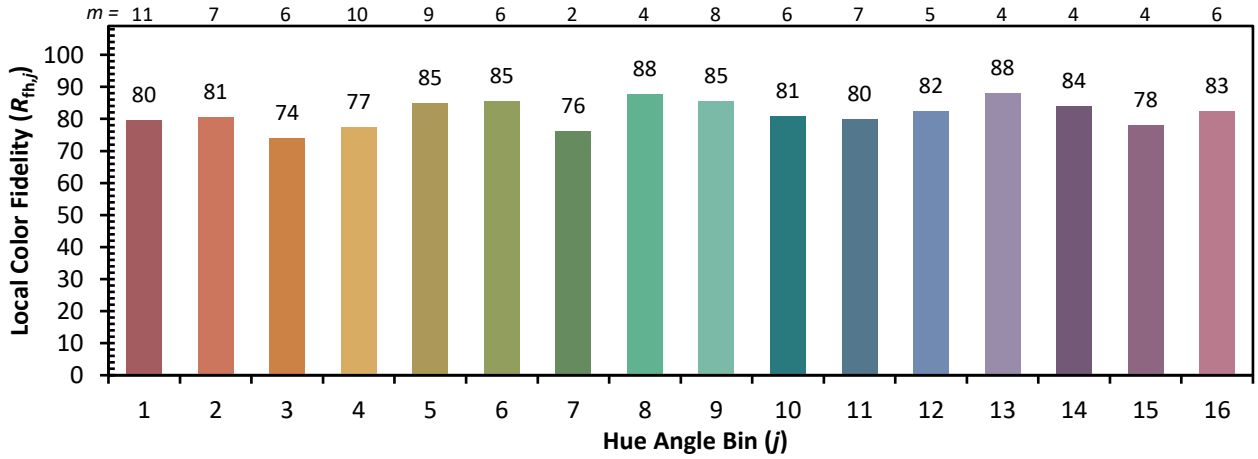
Color Rendition by Hue-Angle Bin







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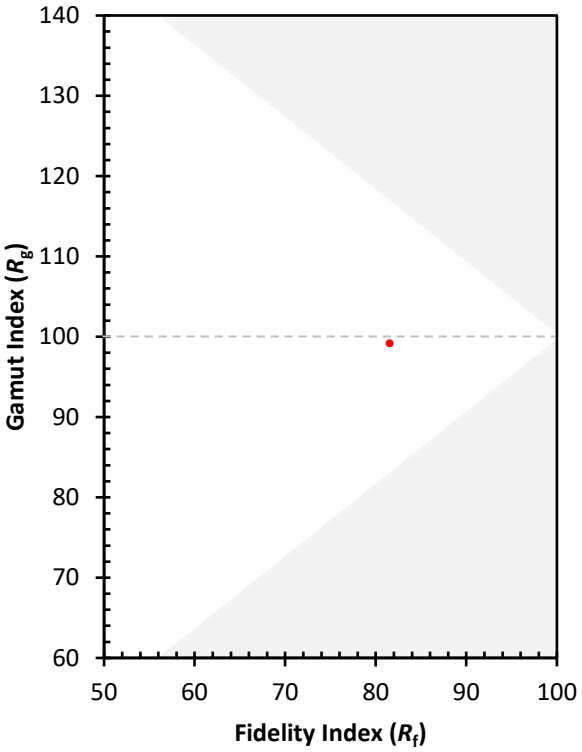
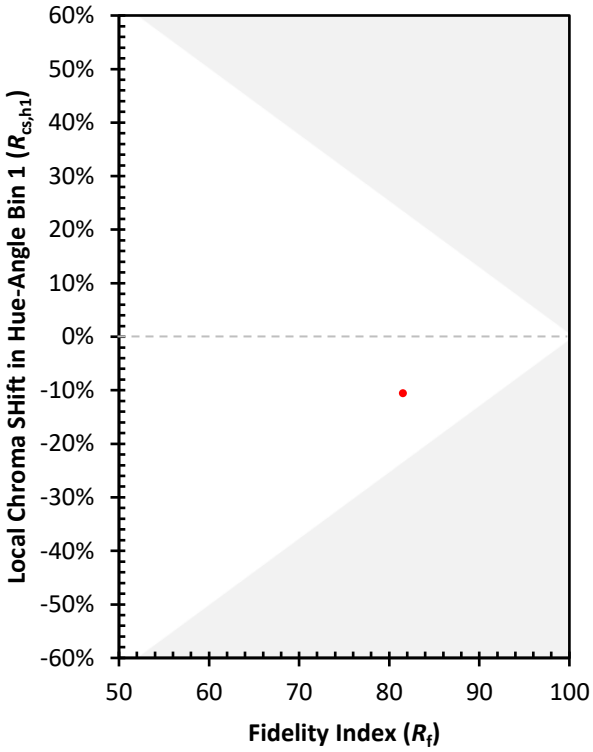
Measure Comparisons





(END OF REPORT)