

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: P324307

Luminaire Tested: **GLEON-SA3A-830-U-SLL-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P324307
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-27)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: GLEON-SA3A-830-U-SLL-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(3) 80 CRI, 3000K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND SPILL LIGHT
ELIMINATOR LEFT OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8381 lumens
Efficiency: N/A
Efficacy: 87.3 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Medium
BUG Rating: B1 - U0 - G2

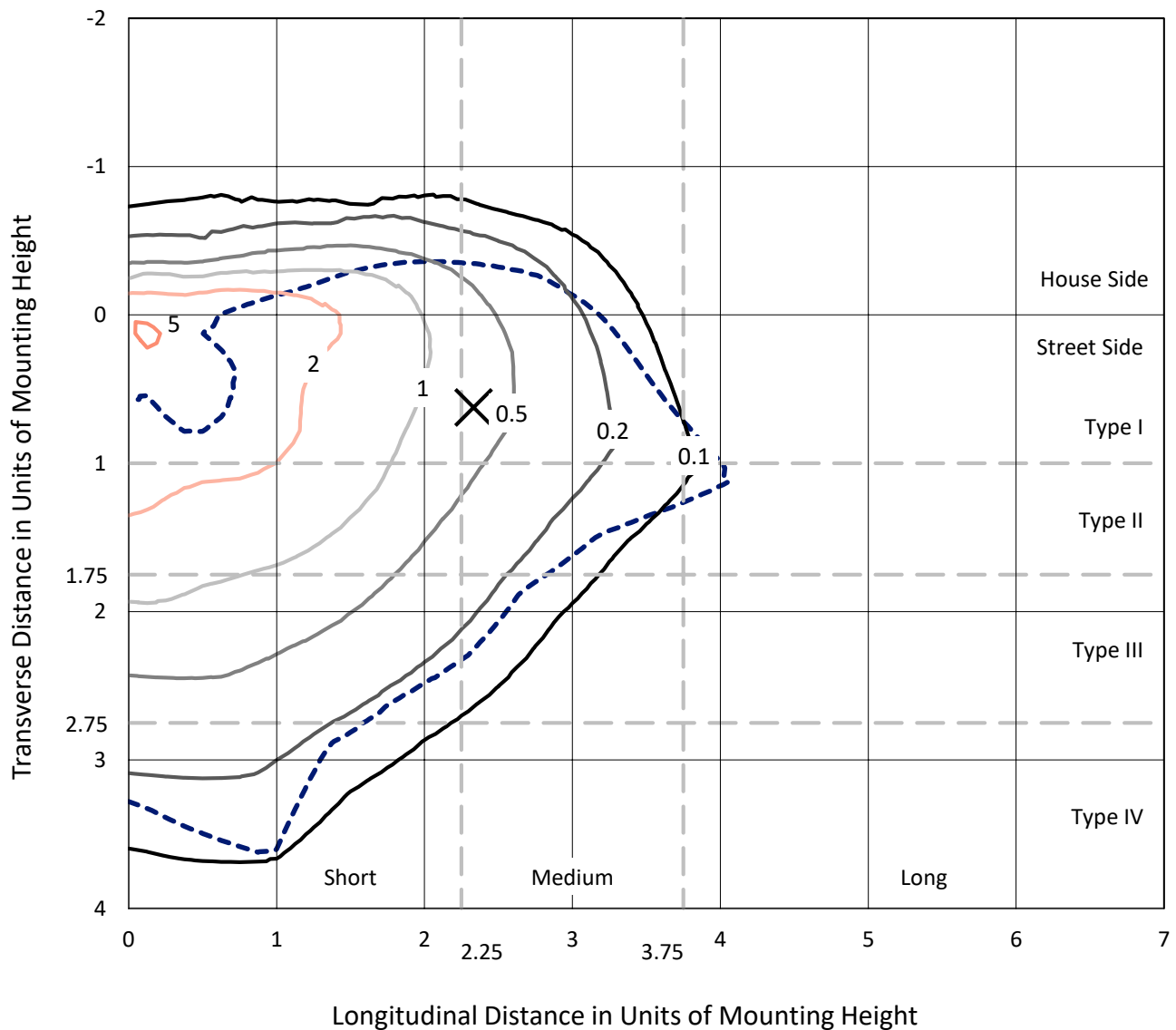
Input Watts (W): 96
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

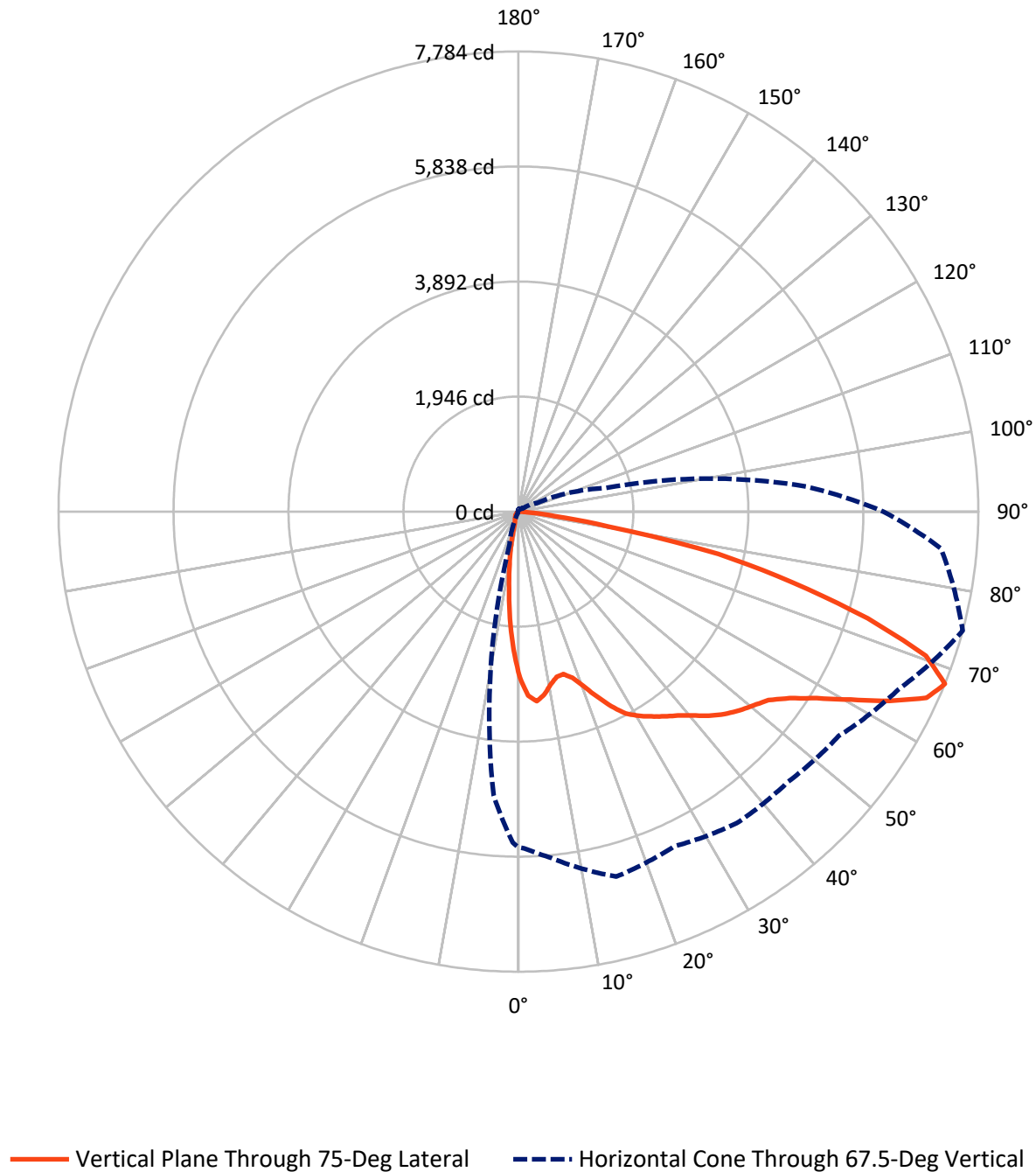
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.8 fc
 Type III - Medium - N/A

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Luminous Intensity Polar Plot



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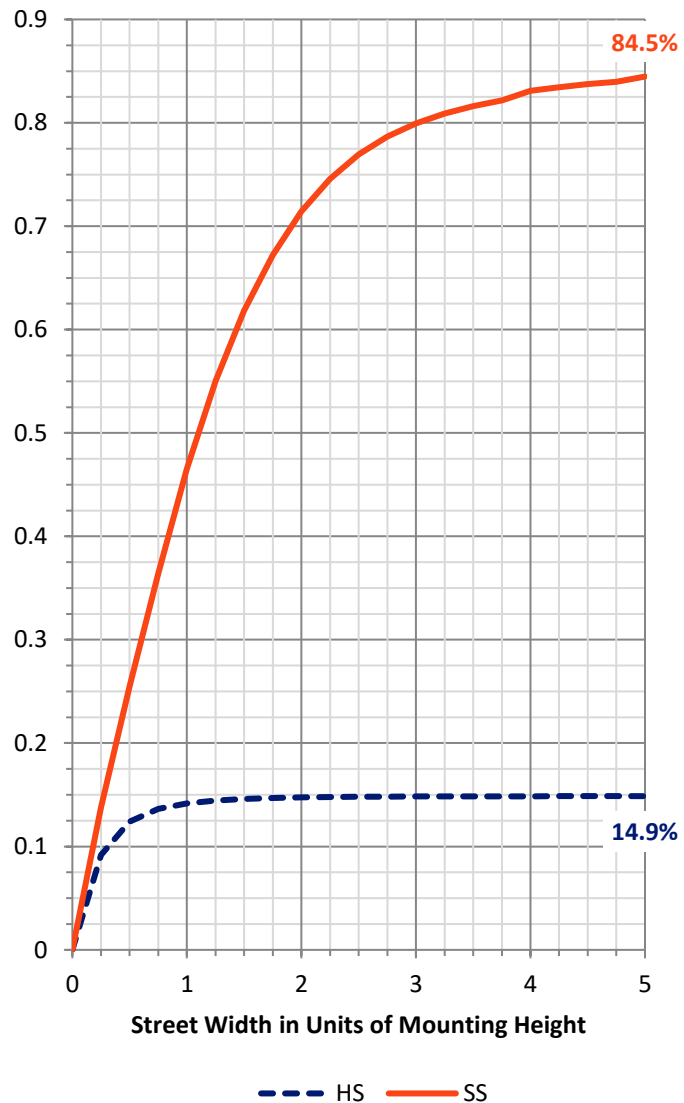
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1257.7	0.0	1257.7
	% Fixture	15.0	0.0	15.0
Street Side	Lumens	7123.3	0.0	7123.3
	% Fixture	85.0	0.0	85.0
Total	Lumens	8381.0	0.0	8381.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	213.3	2.5
10°-20°	419.9	5.0
20°-30°	594.1	7.1
30°-40°	873.5	10.4
40°-50°	1255.5	15.0
50°-60°	1767.4	21.1
60°-70°	2064.2	24.6
70°-80°	1053.1	12.6
80°-90°	139.9	1.7
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°	8381.0	100.0
0°-180°	8381.0	100.0

Coefficient of Utilization



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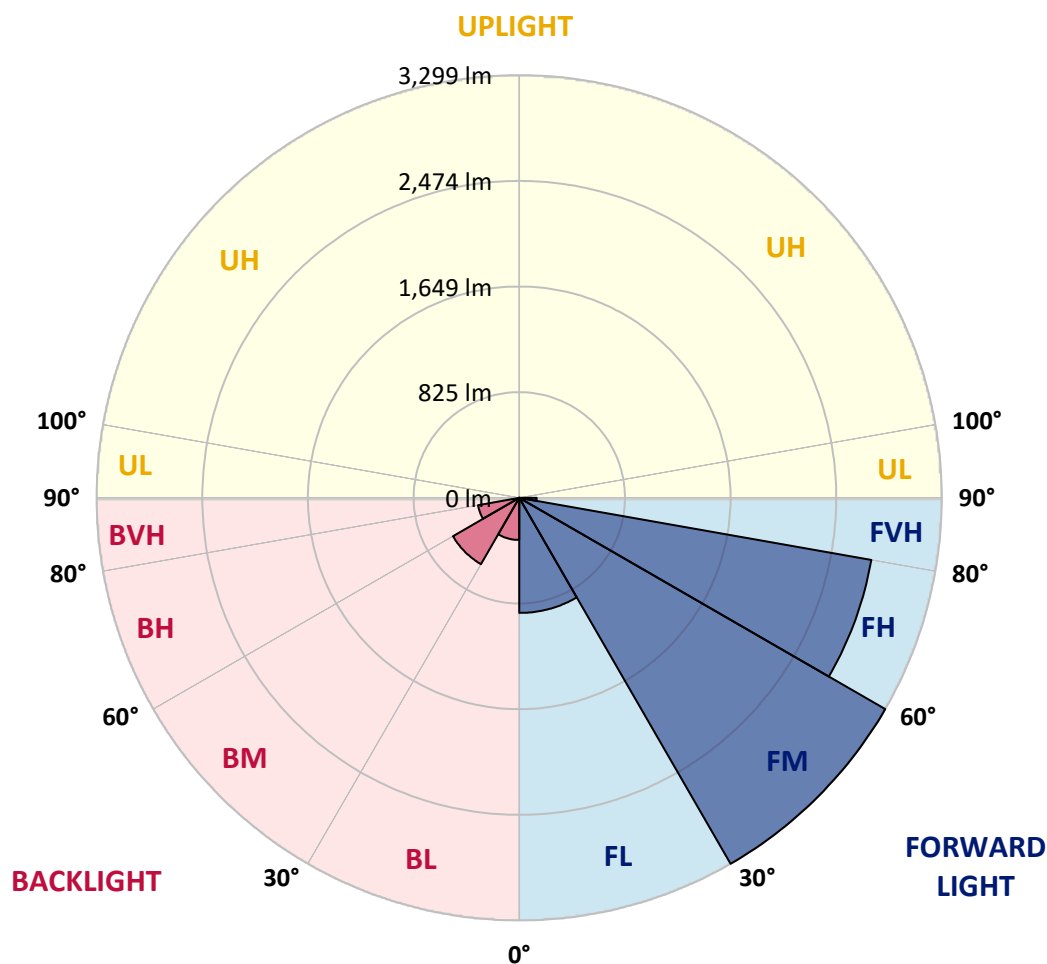
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	898.4	10.7			
FM	(30°-60°)	3298.6	39.4			
FH	(60°-80°)	2790.6	33.3			G2/5000
FVH	(80°-90°)	135.7	1.6			G2/225
BL	(0°-30°)	328.9	3.9	B1/500		
BM	(30°-60°)	597.9	7.1	B1/1000		
BH	(60°-80°)	326.7	3.9	B1/500		G1/500
BVH	(80°-90°)	4.2	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 III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	2811.7	2811.7	2811.7	2811.7	2811.7	2811.7	2811.7	2811.7	2811.7	2811.7	2811.7
2.5°	3047.9	3052.7	3077.3	3134.5	3196.8	3201.6	3243.6	3200.4	3185.7	3115.8	3043.5
5°	3070.9	3089.2	3173.8	3341.7	3487.4	3534.3	3567.6	3482.6	3393.3	3222.6	3040.4
7.5°	2885.5	2916.1	3049.1	3364.3	3624.8	3739.9	3761.7	3628.7	3410.0	3128.9	2855.0
10°	2648.1	2683.0	2843.4	3230.9	3588.6	3786.0	3816.1	3641.8	3327.4	2977.2	2654.5
12.5°	2456.0	2496.8	2660.8	3080.9	3464.4	3682.7	3742.3	3597.8	3255.9	2869.6	2517.5
15°	2367.4	2414.3	2586.6	2984.0	3326.6	3498.5	3547.8	3485.4	3216.2	2852.6	2485.7
17.5°	2418.2	2469.1	2646.9	2992.3	3197.2	3270.6	3310.3	3335.7	3216.2	2955.4	2578.6
20°	2626.7	2681.5	2869.6	3076.9	3090.0	3062.6	3105.1	3194.4	3253.6	3150.7	2801.8
22.5°	2914.9	2979.2	3191.6	3221.8	3037.6	2934.0	2939.5	3079.7	3321.5	3398.5	3111.4
25°	3266.3	3344.9	3560.9	3437.8	3059.4	2857.3	2855.4	2985.2	3387.8	3646.6	3456.4
27.5°	3615.2	3701.8	3891.6	3701.4	3149.5	2843.4	2839.5	2956.6	3452.5	3867.4	3833.2
30°	3907.8	3992.0	4155.6	3892.4	3246.8	2876.0	2856.9	2987.2	3491.0	4010.7	4107.9
32.5°	4146.1	4213.6	4345.8	4023.8	3350.8	2939.1	2897.8	3068.9	3556.5	4131.8	4360.4
35°	4408.1	4479.2	4532.0	4148.8	3467.6	3030.0	2970.9	3198.8	3657.3	4254.8	4637.2
37.5°	4707.0	4777.7	4771.4	4263.2	3615.6	3180.5	3142.8	3404.4	3814.2	4376.7	4946.1
40°	4999.6	5071.9	5020.3	4388.2	3789.5	3428.6	3400.9	3713.3	4024.2	4532.8	5308.1
42.5°	5273.6	5351.8	5241.4	4506.6	3996.8	3741.5	3789.1	4111.1	4287.0	4724.9	5620.2
45°	5494.3	5574.1	5426.8	4621.7	4215.1	4121.0	4264.4	4551.8	4603.0	4887.3	5831.0
47.5°	5654.7	5730.2	5555.5	4736.8	4494.6	4585.2	4834.9	5013.9	4888.5	5028.2	5980.7
50°	5757.2	5815.9	5593.2	4880.9	4861.5	5126.7	5429.2	5516.6	5157.3	5155.3	6162.5
52.5°	5822.3	5848.9	5621.0	5031.4	5244.2	5716.3	6011.3	6038.6	5434.0	5295.0	6407.5
55°	6046.6	6068.0	5817.9	5213.6	5560.6	6232.8	6537.7	6512.3	5747.2	5568.6	6696.5
57.5°	6429.3	6451.9	6224.8	5475.7	5816.7	6552.0	6919.2	6964.9	6114.5	5952.9	7006.2
60°	6621.5	6663.6	6582.6	5807.6	6064.8	6756.1	7179.3	7325.0	6573.4	6459.5	7306.3
62.5°	6447.2	6508.3	6625.8	6175.6	6311.4	6868.4	7260.3	7454.0	7043.5	7049.9	7491.3
65°	6099.4	6148.2	6347.5	6377.3	6454.3	6854.5	7060.2	7273.8	7331.3	7592.2	7481.4
67.5°	5679.3	5697.6	5866.7	6393.2	6247.1	6436.9	6459.1	6617.1	7103.8	7784.3	7180.9
70°	5074.7	5084.6	5232.3	5861.6	5368.5	5410.2	5377.2	5409.4	6107.3	7316.2	6422.2
72.5°	4084.1	4109.1	4319.2	4867.8	3911.0	3790.7	4049.6	4035.3	4703.5	6181.2	4769.8
75°	3007.0	3050.3	3367.5	3921.0	2745.0	2483.0	2671.9	2722.4	3343.7	4781.3	2982.8
77.5°	2105.4	2137.5	2444.8	2882.4	1986.7	1775.5	1707.2	1767.1	2207.0	3458.8	1502.7
80°	1212.9	1224.8	1420.9	1664.3	1338.7	1531.7	1387.6	1428.9	1322.5	1538.8	646.3
82.5°	793.6	795.6	872.2	990.6	833.7	968.7	717.0	916.7	813.5	618.2	210.4
85°	428.8	431.2	505.8	703.1	472.1	266.8	156.8	322.0	503.0	141.7	57.6
87.5°	47.2	43.3	152.5	255.7	131.0	24.2	8.3	36.1	80.6	9.1	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°	2811.7	2811.7	2811.7	2811.7	2811.7	2811.7	2811.7	2811.7	2811.7	2811.7	2811.7
2.5°	3006.6	2973.7	2891.5	2804.5	2734.7	2669.2	2603.2	2522.7	2460.3	2447.6	2427.0
5°	2942.3	2837.9	2665.6	2492.5	2353.1	2177.2	2065.7	1978.7	1893.8	1888.6	1871.5
7.5°	2717.6	2580.2	2337.6	2098.2	1902.1	1734.6	1565.4	1452.3	1363.4	1332.0	1313.3
10°	2501.6	2347.2	2044.2	1771.1	1596.0	1447.9	1328.8	1210.5	1103.3	1029.5	996.1
12.5°	2350.7	2180.0	1846.1	1610.7	1485.2	1344.7	1199.4	1051.7	928.2	839.3	784.9
15°	2292.4	2110.2	1779.8	1547.2	1392.3	1214.5	1028.7	859.9	723.0	642.4	593.5
17.5°	2361.9	2149.9	1774.7	1469.8	1253.4	1032.2	827.0	627.7	498.7	437.5	406.1
20°	2538.1	2276.1	1772.7	1374.9	1088.2	816.3	560.2	412.9	334.7	300.5	285.9
22.5°	2787.5	2437.3	1788.6	1281.2	916.3	583.2	386.7	303.3	263.2	245.0	236.6
25°	3108.3	2663.6	1833.4	1196.2	754.7	435.1	301.3	254.1	225.9	211.6	205.7
27.5°	3450.1	2924.0	1903.3	1122.4	623.3	347.0	258.1	217.6	197.3	187.4	181.8
30°	3732.0	3225.8	1974.0	1040.2	528.0	302.5	236.2	198.5	175.1	168.7	163.6
32.5°	3978.5	3454.1	2024.0	965.9	465.7	268.8	213.6	177.5	161.6	149.3	143.7
35°	4233.8	3644.2	2022.4	913.9	422.8	243.4	194.5	158.8	139.8	125.5	121.1
37.5°	4510.1	3859.0	1987.9	869.5	404.2	223.1	183.8	148.9	129.8	115.5	110.0
40°	4833.7	4084.5	1952.5	827.8	399.0	206.8	176.3	140.9	120.7	106.8	101.2
42.5°	5148.9	4287.8	1921.6	796.8	376.8	206.4	169.5	135.0	113.5	100.0	93.7
45°	5401.0	4477.2	1915.6	778.2	353.3	213.6	166.0	131.0	108.0	94.5	88.5
47.5°	5610.7	4682.8	1953.7	765.1	331.1	194.9	174.7	128.2	102.8	89.7	83.0
50°	5860.0	4935.3	2043.5	743.6	307.7	175.5	200.1	129.0	98.5	85.0	77.8
52.5°	6207.8	5284.7	2175.3	707.5	275.5	157.6	196.9	129.8	93.7	79.8	72.7
55°	6597.6	5721.0	2317.0	647.5	230.7	134.2	168.7	124.3	84.6	74.2	67.5
57.5°	7007.4	6116.9	2401.2	576.1	183.4	115.9	135.0	113.2	74.6	66.7	62.3
60°	7071.7	6267.3	2362.7	488.3	145.7	100.8	100.0	115.1	66.7	58.8	55.6
62.5°	6911.7	6078.3	2176.5	410.1	121.9	88.5	82.2	100.4	60.3	52.4	49.2
65°	6604.0	5567.4	1874.7	369.6	113.2	75.8	68.3	70.7	52.8	45.7	42.9
67.5°	6176.0	4885.3	1539.2	346.6	112.0	65.1	58.4	53.6	45.7	39.7	37.3
70°	5301.0	4069.8	1228.0	333.9	108.8	54.8	49.2	43.7	38.1	33.7	31.8
72.5°	3901.5	2883.9	955.2	320.0	109.6	43.7	42.9	36.1	30.6	26.2	25.4
75°	2254.3	1647.6	626.5	259.3	104.4	33.7	35.7	25.4	21.4	18.3	18.3
77.5°	1201.4	1004.9	238.6	108.0	38.1	21.4	20.2	15.1	13.5	11.1	10.7
80°	523.7	442.3	71.9	30.2	21.0	11.5	7.5	6.7	6.0	4.8	4.4
82.5°	185.4	160.0	23.4	14.7	9.1	0.0	0.0	0.0	0.0	0.0	0.0
85°	42.1	30.2	0.0	3.6	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):

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	2811.7	2811.7	2811.7	2811.7	2811.7	2811.7	2811.7	2811.7	2811.7	2811.7	2811.7
2.5°	2384.9	2376.2	2324.5	2326.5	2335.7	2348.8	2317.8	2332.1	2370.6	2407.5	2421.4
5°	1844.1	1846.1	1814.8	1834.2	1851.7	1863.6	1813.6	1814.4	1844.9	1886.6	1908.5
7.5°	1299.4	1296.3	1297.9	1344.3	1377.3	1353.4	1372.1	1307.4	1311.4	1341.1	1318.9
10°	965.9	922.3	897.7	932.6	968.7	955.6	923.5	902.4	917.1	950.1	947.7
12.5°	759.1	696.4	659.4	634.4	664.2	639.6	638.8	620.5	600.7	604.3	657.1
15°	570.9	525.3	481.6	441.5	440.7	432.4	389.9	342.2	338.3	340.6	368.0
17.5°	392.7	377.2	359.3	324.8	315.6	280.7	239.4	220.3	210.8	215.2	224.3
20°	275.9	270.0	272.0	253.3	240.2	206.8	182.6	175.1	173.5	177.9	182.2
22.5°	228.7	218.0	216.8	208.4	195.3	171.1	158.0	153.6	151.7	155.6	158.8
25°	200.1	189.4	185.0	179.8	166.0	149.3	141.3	137.4	135.4	137.8	139.8
27.5°	176.3	166.4	162.4	158.8	145.3	133.4	127.0	123.5	121.9	122.7	124.7
30°	158.4	149.7	144.5	140.1	128.6	120.3	114.7	111.2	109.6	109.6	111.6
32.5°	139.8	135.0	130.2	124.7	113.9	108.4	102.8	98.9	97.3	97.7	99.3
35°	116.3	114.7	115.9	110.8	101.6	96.9	91.3	86.9	85.8	86.2	87.7
37.5°	103.2	96.1	100.4	97.7	92.5	86.2	79.0	75.0	73.1	74.2	75.0
40°	94.9	86.2	83.0	85.8	85.0	74.6	68.3	64.3	62.7	63.1	63.9
42.5°	87.7	77.4	70.3	69.9	74.6	65.1	58.4	54.8	52.8	52.8	53.6
45°	81.0	69.9	61.1	54.4	62.7	55.2	48.8	45.7	43.3	43.3	43.7
47.5°	75.8	63.5	53.2	44.5	47.2	45.3	40.1	36.9	34.5	34.5	34.9
50°	71.1	57.2	46.1	37.3	35.3	37.3	32.6	29.0	27.4	27.0	27.8
52.5°	65.9	50.8	39.3	31.8	27.8	28.2	25.4	23.0	21.0	21.0	21.8
55°	60.7	45.7	34.1	27.0	23.0	21.0	20.2	18.7	17.1	17.1	17.9
57.5°	55.6	40.1	29.0	22.2	18.3	16.7	16.7	15.5	14.3	14.3	15.1
60°	50.8	34.5	23.8	18.3	14.3	13.9	14.3	13.1	12.3	12.3	13.1
62.5°	45.3	29.4	19.5	15.1	11.5	11.1	12.3	11.5	10.7	10.7	11.5
65°	38.5	25.0	15.5	11.5	8.7	8.7	10.3	9.5	8.7	8.7	9.5
67.5°	32.6	21.0	11.9	8.3	6.4	6.7	8.7	7.9	7.5	7.5	8.3
70°	27.0	16.3	8.3	5.2	3.6	5.2	6.7	6.7	6.7	6.7	7.5
72.5°	20.2	11.1	4.8	2.0	1.6	3.6	5.6	6.4	6.0	6.0	7.1
75°	13.1	6.4	1.6	0.0	0.0	2.0	4.4	5.2	5.2	4.8	6.0
77.5°	7.5	2.0	0.0	0.0	0.0	0.0	2.8	2.4	2.0	1.6	2.8
80°	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	2811.7	2811.7	2811.7	2811.7	2811.7	2811.7	2811.7	2811.7	2811.7	2811.7
2.5°	2477.4	2524.2	2590.1	2660.0	2767.6	2853.0	2936.7	3008.6	3036.4	3047.9
5°	1960.9	2029.6	2126.0	2249.9	2444.0	2618.7	2795.8	2974.1	3051.5	3070.9
7.5°	1407.0	1494.8	1617.5	1772.7	2000.2	2226.5	2473.8	2735.5	2855.4	2885.5
10°	1041.4	1148.6	1289.1	1452.7	1669.9	1902.5	2172.1	2471.0	2608.0	2648.1
12.5°	738.9	883.8	1071.9	1270.9	1459.0	1666.7	1939.4	2269.0	2412.7	2456.0
15°	433.9	574.1	796.8	1063.2	1304.2	1514.6	1791.7	2165.3	2323.7	2367.4
17.5°	248.9	318.8	487.1	784.1	1111.3	1402.7	1745.3	2191.1	2377.7	2418.2
20°	190.2	212.4	280.7	505.0	885.7	1292.7	1745.3	2337.2	2567.1	2626.7
22.5°	166.4	182.6	210.4	301.3	651.9	1174.8	1765.5	2548.5	2849.0	2914.9
25°	147.7	162.4	186.2	226.7	444.7	1034.6	1813.6	2807.7	3180.9	3266.3
27.5°	132.2	146.1	167.5	198.5	304.1	865.5	1878.3	3111.8	3547.0	3615.2
30°	118.3	131.4	150.9	172.7	234.6	673.7	1933.5	3398.5	3834.4	3907.8
32.5°	105.2	117.1	134.6	150.9	192.2	498.3	1939.4	3625.6	4073.0	4146.1
35°	92.9	103.6	119.5	132.2	159.2	393.4	1846.9	3822.5	4311.6	4408.1
37.5°	81.0	91.3	105.2	114.7	140.1	320.8	1705.6	4042.0	4617.7	4707.0
40°	69.9	79.0	93.3	99.7	132.6	246.5	1551.9	4272.3	4917.9	4999.6
42.5°	59.6	68.3	82.2	94.5	116.3	184.2	1386.0	4488.3	5187.8	5273.6
45°	49.6	58.8	72.7	100.0	96.5	137.8	1208.5	4631.6	5401.0	5494.3
47.5°	40.1	50.4	69.5	95.3	77.0	101.2	1068.0	4767.4	5562.6	5654.7
50°	32.2	42.5	78.2	85.0	63.1	77.4	1009.2	4888.9	5668.6	5757.2
52.5°	26.2	35.7	73.8	65.1	52.8	63.9	1041.0	5085.8	5766.7	5822.3
55°	21.8	28.2	44.5	45.3	44.9	54.4	1080.3	5368.5	6020.4	6046.6
57.5°	19.1	22.6	31.0	34.9	37.7	48.4	1081.1	5774.2	6413.0	6429.3
60°	16.3	19.9	25.8	28.2	32.6	43.3	1041.8	5916.0	6567.5	6621.5
62.5°	14.3	17.5	21.4	23.4	27.4	38.9	949.7	5710.7	6355.5	6447.2
65°	12.7	15.9	17.9	19.9	24.2	34.9	798.0	5300.2	6003.7	6099.4
67.5°	11.1	13.9	15.9	17.9	21.8	31.0	587.6	4823.4	5599.9	5679.3
70°	9.9	12.3	14.3	15.9	19.1	26.2	356.5	4092.9	5041.7	5074.7
72.5°	9.5	11.1	13.1	14.3	16.7	23.0	180.6	3007.8	4030.5	4084.1
75°	8.3	9.9	11.9	12.7	14.7	19.9	73.4	1975.6	2920.9	3007.0
77.5°	6.7	9.1	10.7	11.5	12.7	16.3	37.3	1262.5	2049.8	2105.4
80°	2.4	6.7	9.1	9.5	10.7	11.9	24.6	691.2	1189.1	1212.9
82.5°	0.0	4.4	7.1	6.7	7.5	9.1	15.9	328.7	784.9	793.6
85°	0.0	2.0	5.6	4.4	3.2	6.4	5.6	71.9	411.7	428.8
87.5°	0.0	0.0	0.4	2.0	1.6	2.4	0.8	0.4	37.3	47.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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.

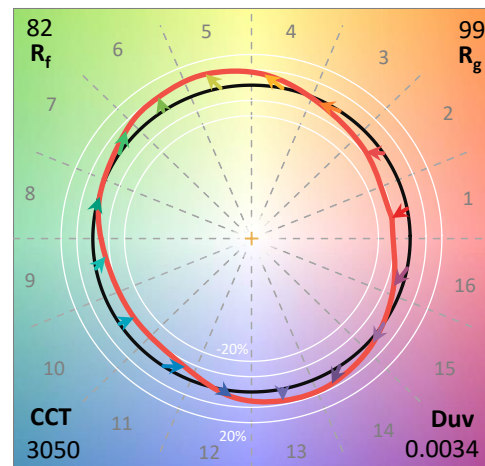
Test Information

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
 CIE u' : 0.2476
 CIE v' : 0.5251
 Duv: 0.0034
 CIE x: 0.4383
 CIE y: 0.4131
 CIE z: 0.1487
 Peak Wavelength (nm): 603
 Dominant Wavelength (nm): 581
 Purity: 55.55201
 R_f: 81.5
 R_g: 99.2

CRI (Ra): 81.0
 R1: 79.6
 R2: 85.6
 R3: 92.0
 R4: 82.6
 R5: 78.9
 R6: 81.7
 R7: 85.2
 R8: 62.0
 R9: 7.1
 R10: 67.0
 R11: 82.7
 R12: 63.2
 R13: 80.3
 R14: 95.0
 R15: 71.7



Test Conditions

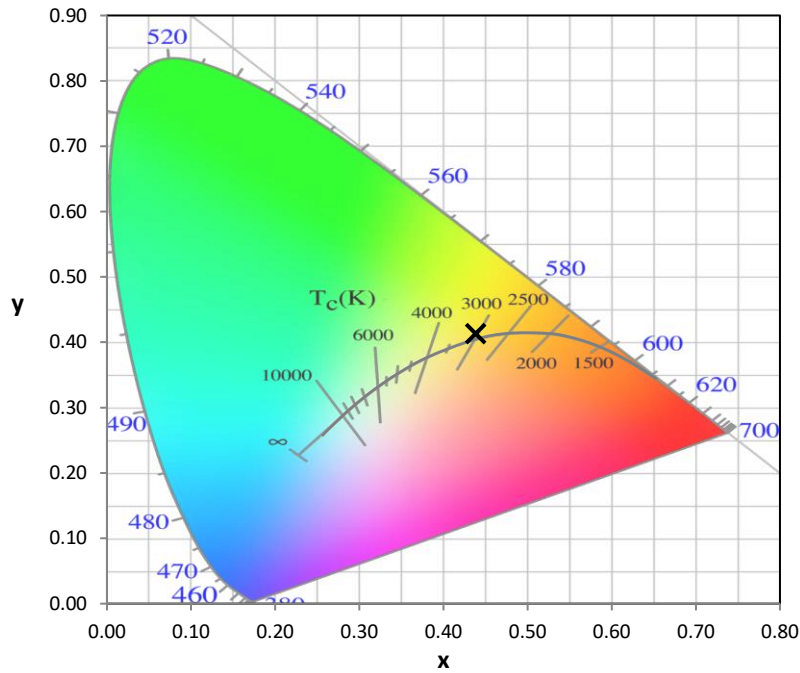
Stabilization Time: 20M
 Operation Time: 1H 20M
 Sphere Temperature (°C): 24.2

REPORT NUMBER: SP1-2408-195-9

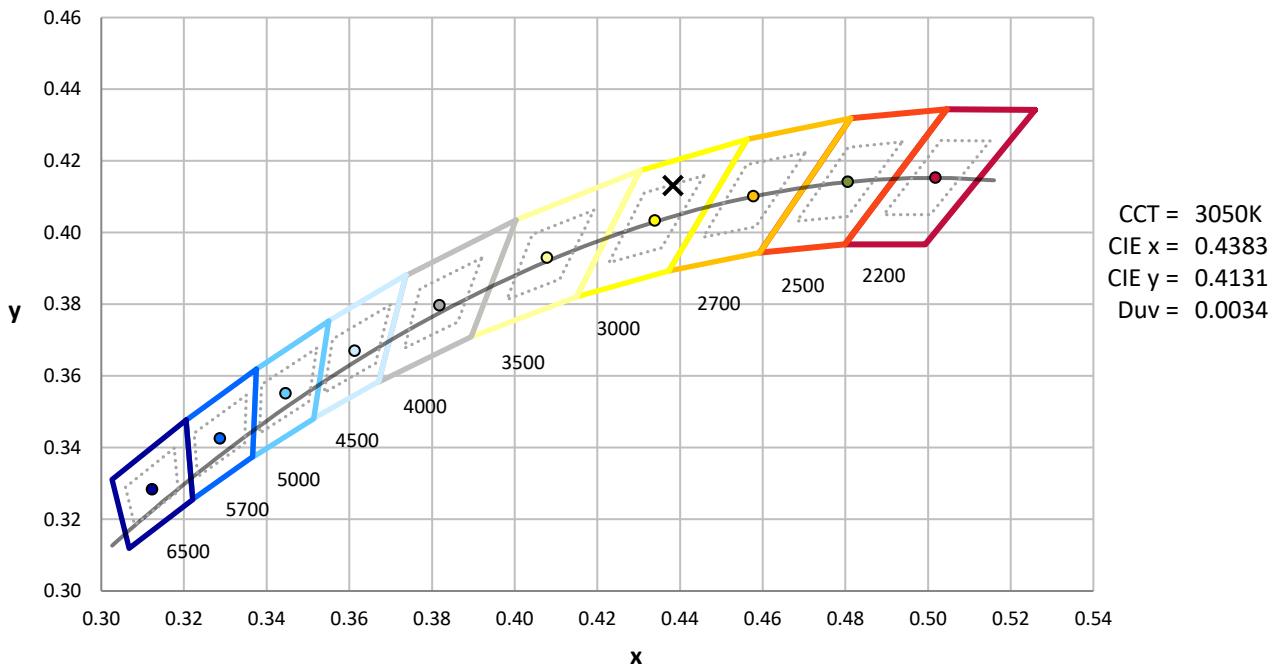
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

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CIE 1931 Chromaticity Diagram



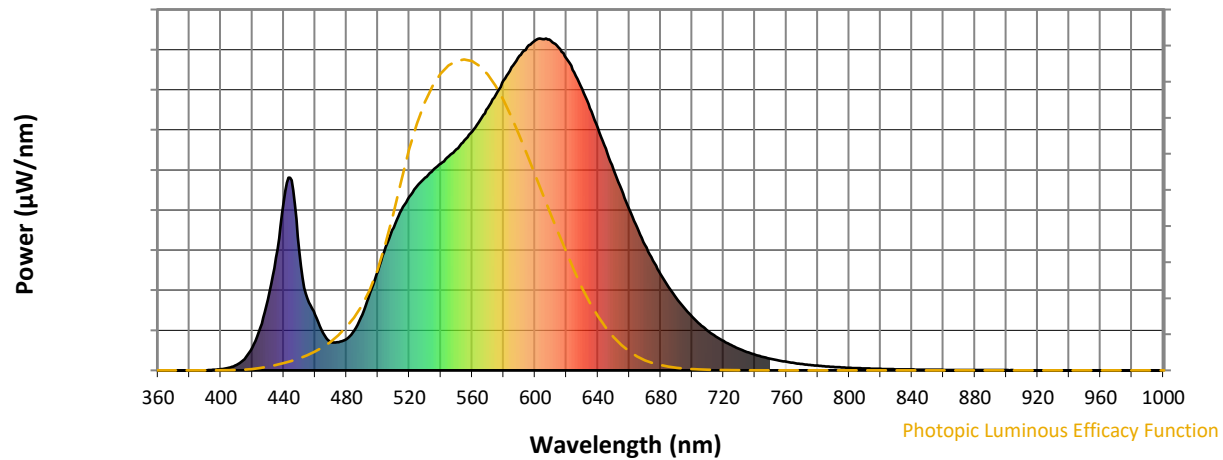
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 3000K 4-step quadrangle

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Photopic Flux vs. Wavelength

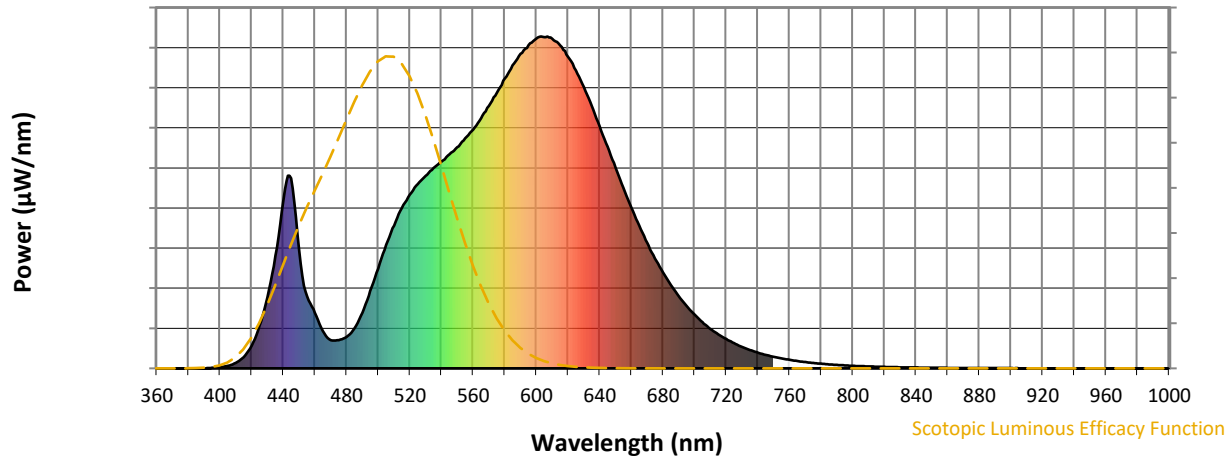


Photopic Lumens: NR

λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	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



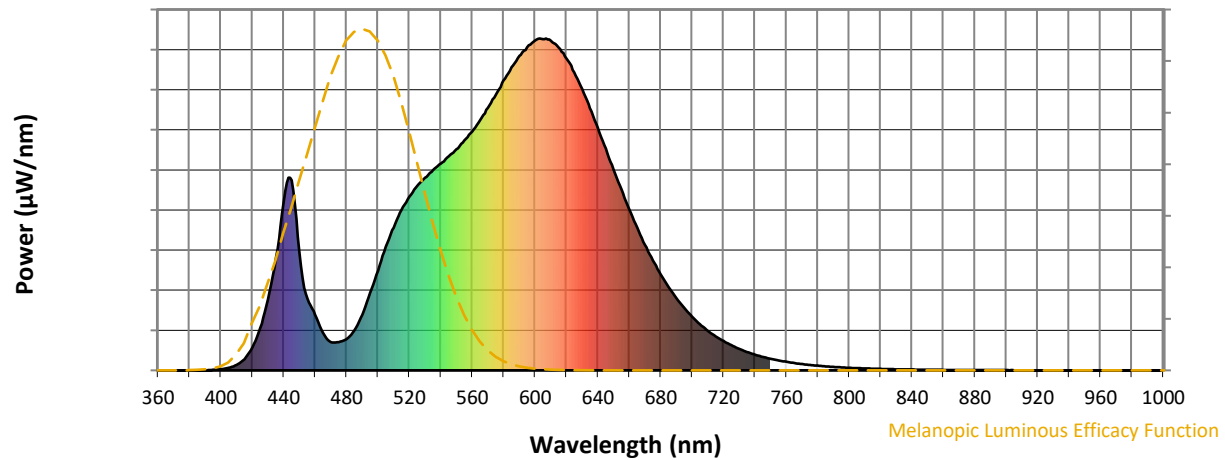
Scotopic Lumens: NR

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			

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Melanopic Flux vs. Wavelength



Melanopic Lumens: NR

M/P: 2.32

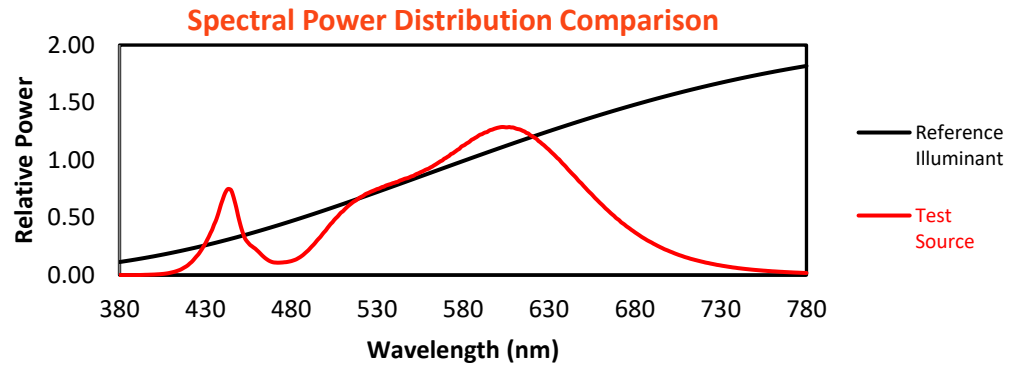
λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)
360	0	NR	490	168	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

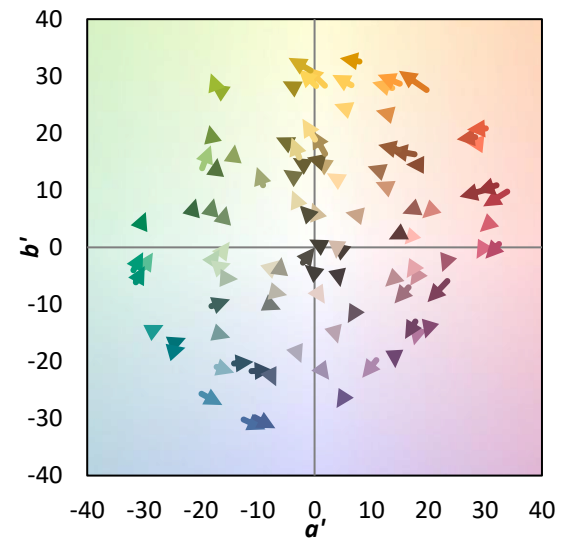
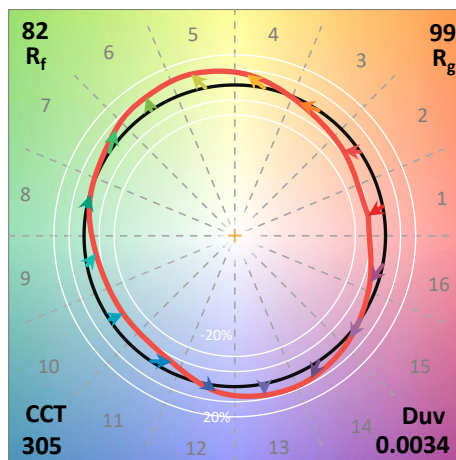
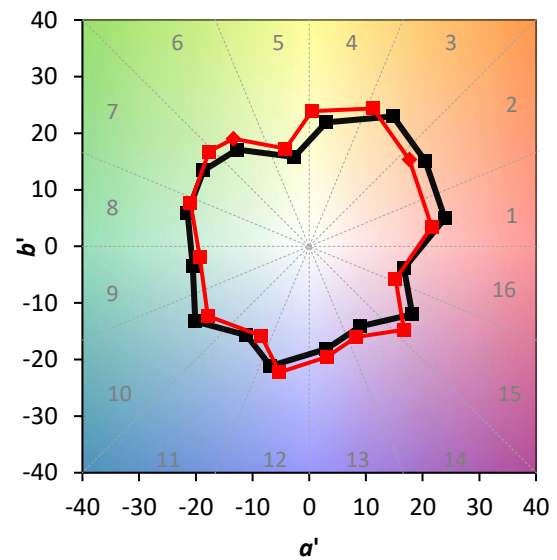
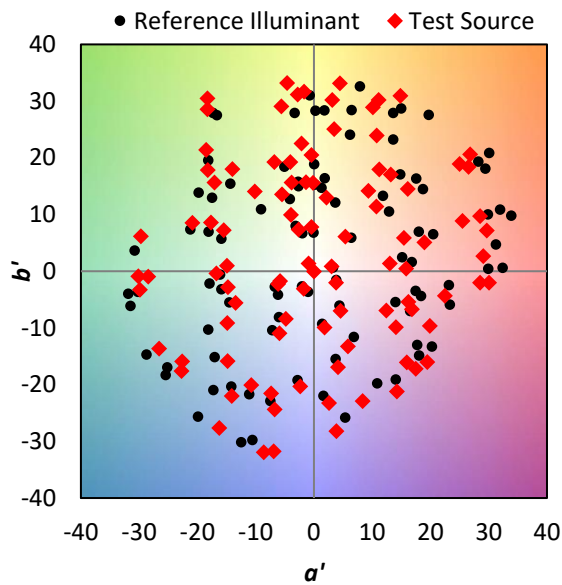
TM-30-18

Summary

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

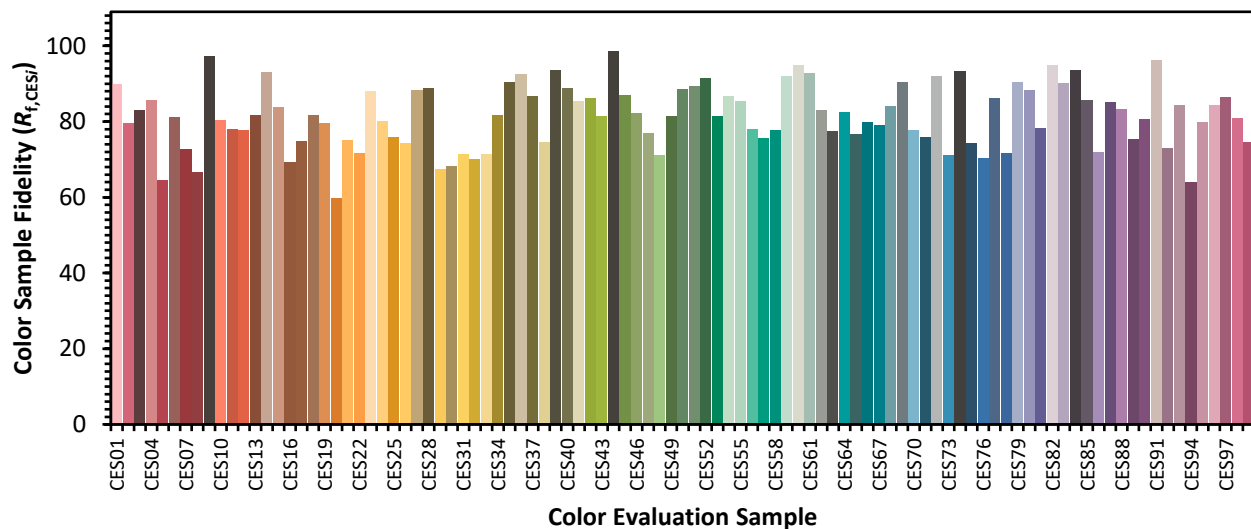


Color Vector Graphics

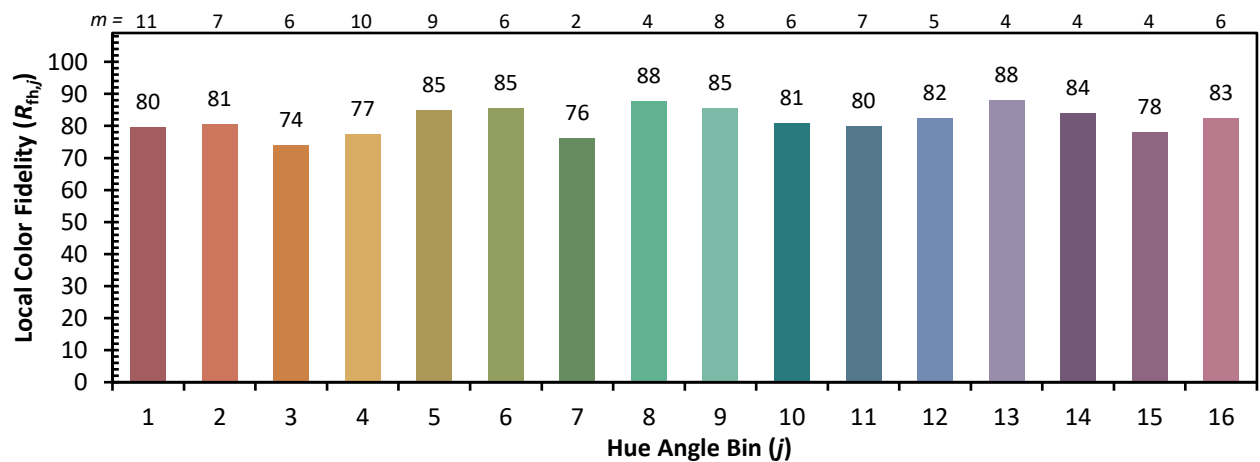
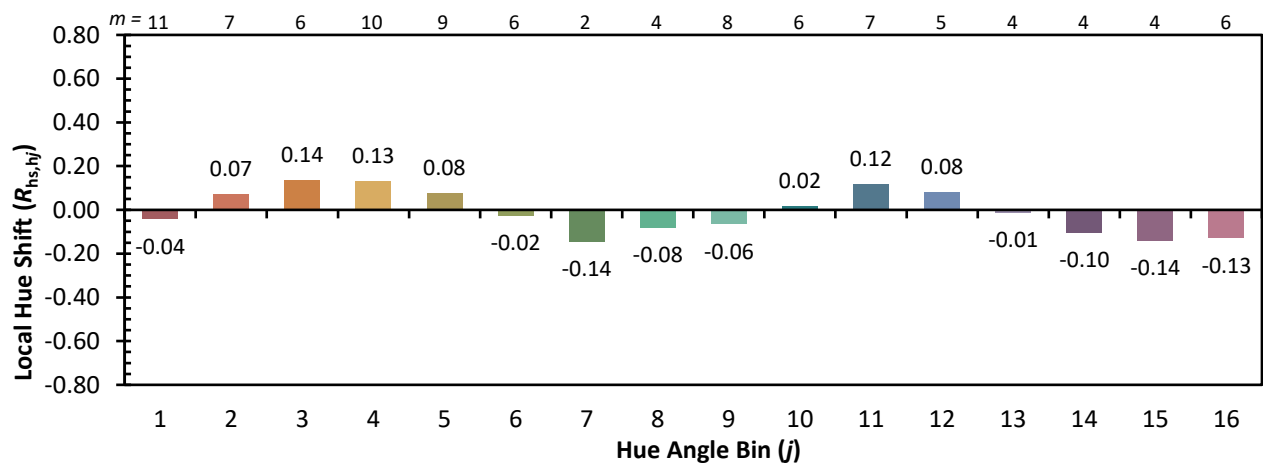
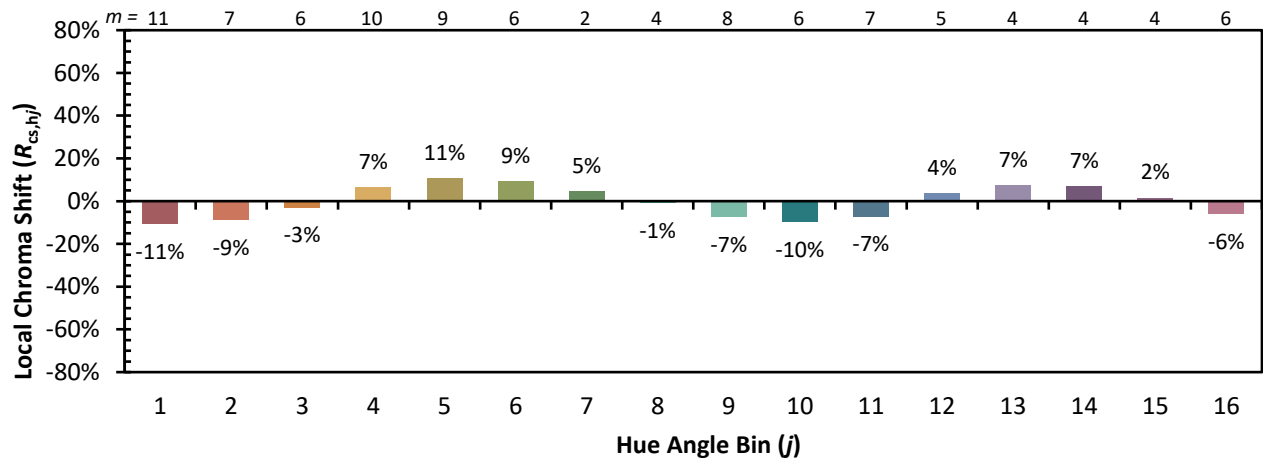


Individual Sample Fidelity Index ($R_{f,i}$)

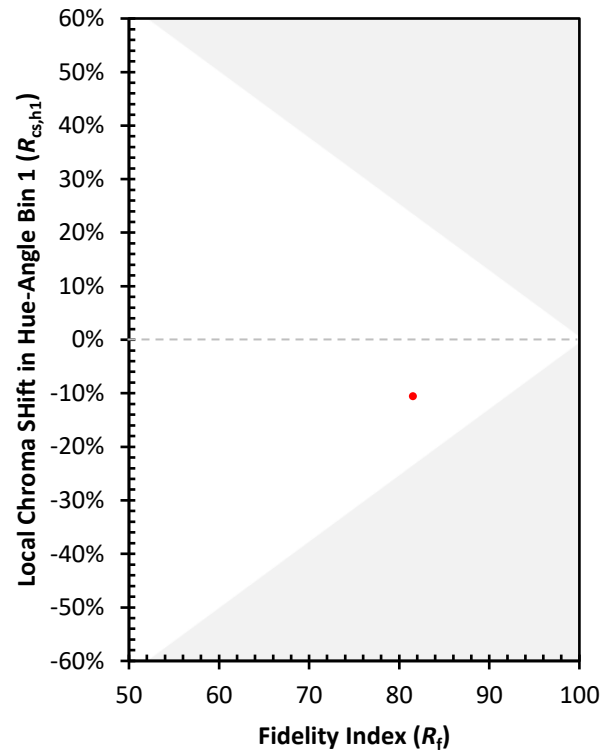
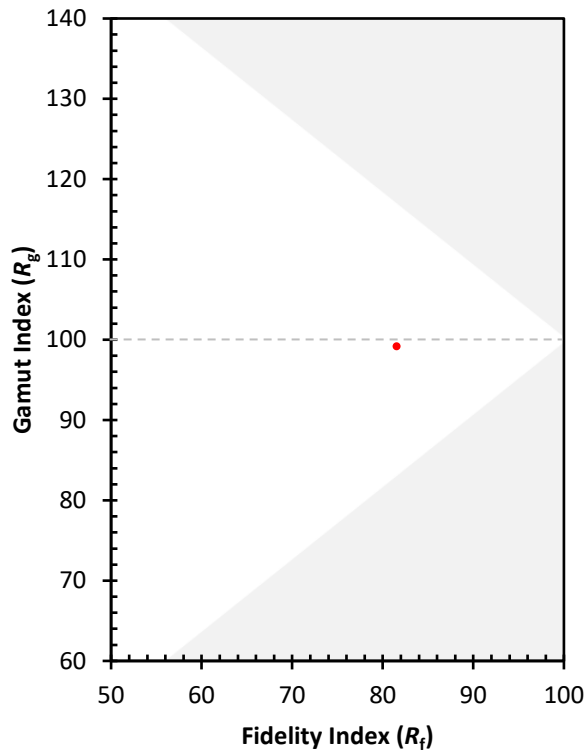
CES01 = 86	CES26 = 74	CES51 = 89	CES76 = 70
CES02 = 63	CES27 = 88	CES52 = 92	CES77 = 86
CES03 = 31	CES28 = 89	CES53 = 81	CES78 = 72
CES04 = 70	CES29 = 67	CES54 = 87	CES79 = 90
CES05 = 50	CES30 = 68	CES55 = 85	CES80 = 88
CES06 = 51	CES31 = 71	CES56 = 78	CES81 = 78
CES07 = 42	CES32 = 70	CES57 = 76	CES82 = 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
CES25 = 72	CES50 = 89	CES75 = 74	



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)