

Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: McGRAW-EDISON

Report Number: P324306

Luminaire Tested: **GLEON-SA2A-830-U-SLL-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P324306
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-SA2A-830-U-SLL-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(2) 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: 5618 lumens
Efficiency: N/A
Efficacy: 85.1 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type III - Medium
BUG Rating: B1 - U0 - G2

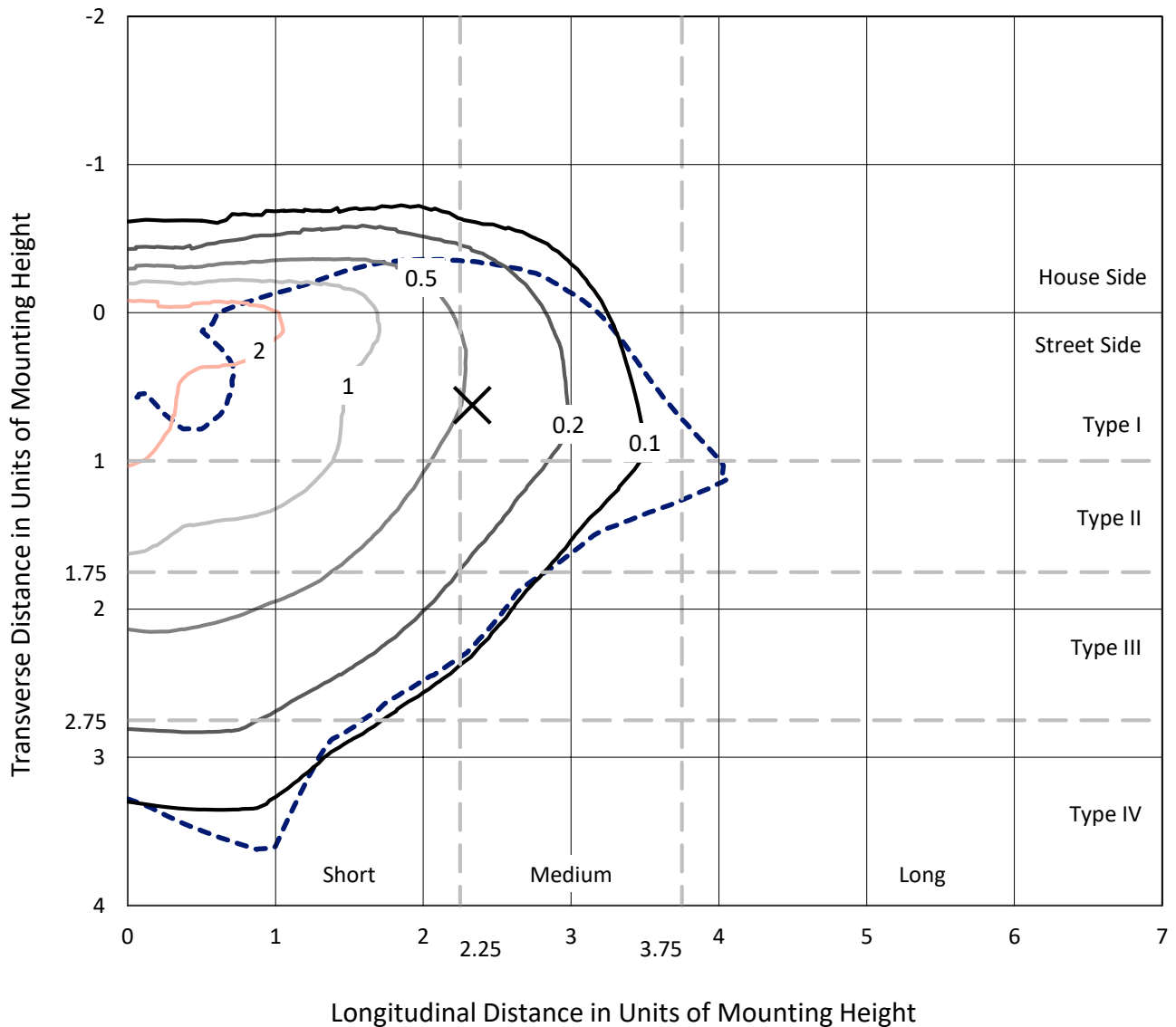
Input Watts (W): 66
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

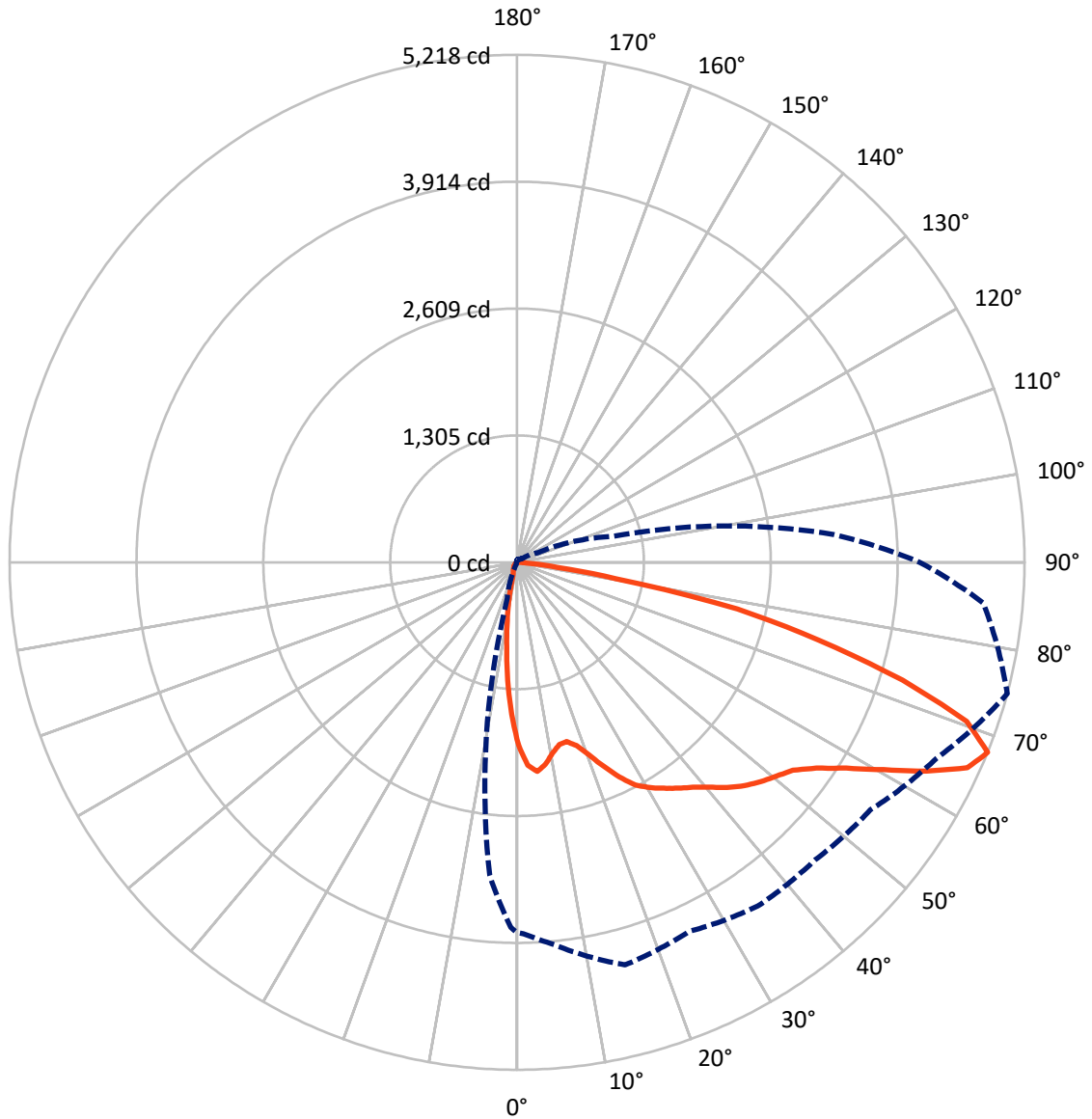
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.9 fc
 Type III - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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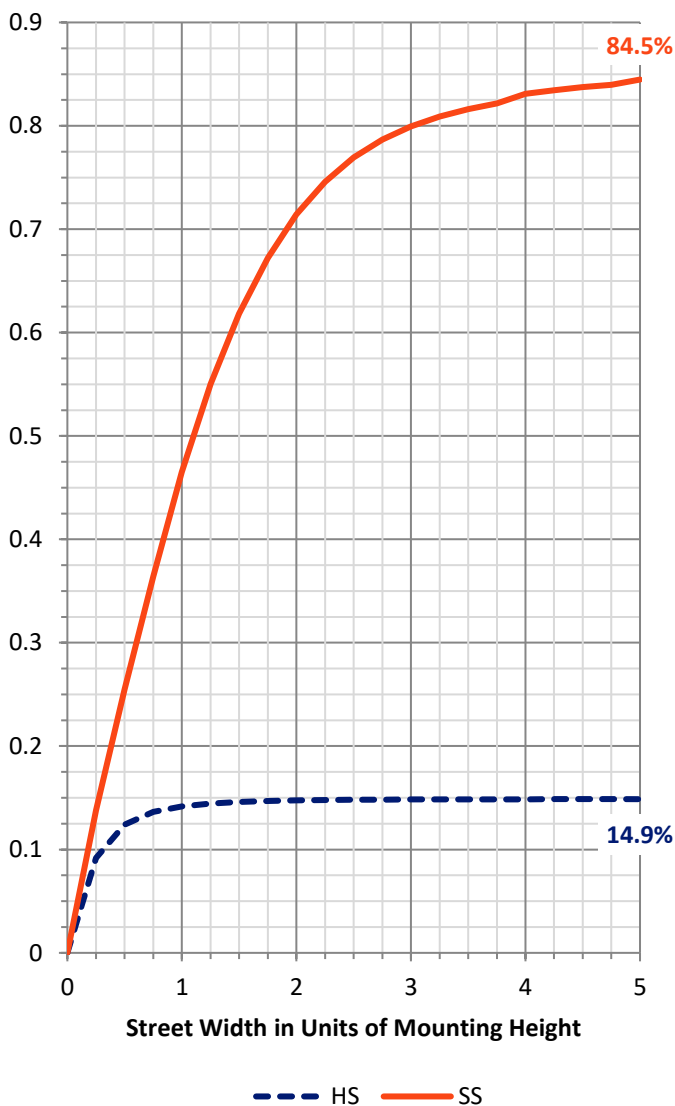
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	843.0	0.0	843.0
	% Fixture	15.0	0.0	15.0
Street Side	Lumens	4775.0	0.0	4775.0
	% Fixture	85.0	0.0	85.0
Total	Lumens	5618.0	0.0	5618.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	143.0	2.5
10°-20°	281.5	5.0
20°-30°	398.2	7.1
30°-40°	585.5	10.4
40°-50°	841.6	15.0
50°-60°	1184.8	21.1
60°-70°	1383.7	24.6
70°-80°	705.9	12.6
80°-90°	93.8	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°	5618.0	100.0
0°-180°	5618.0	100.0

Coefficient of Utilization

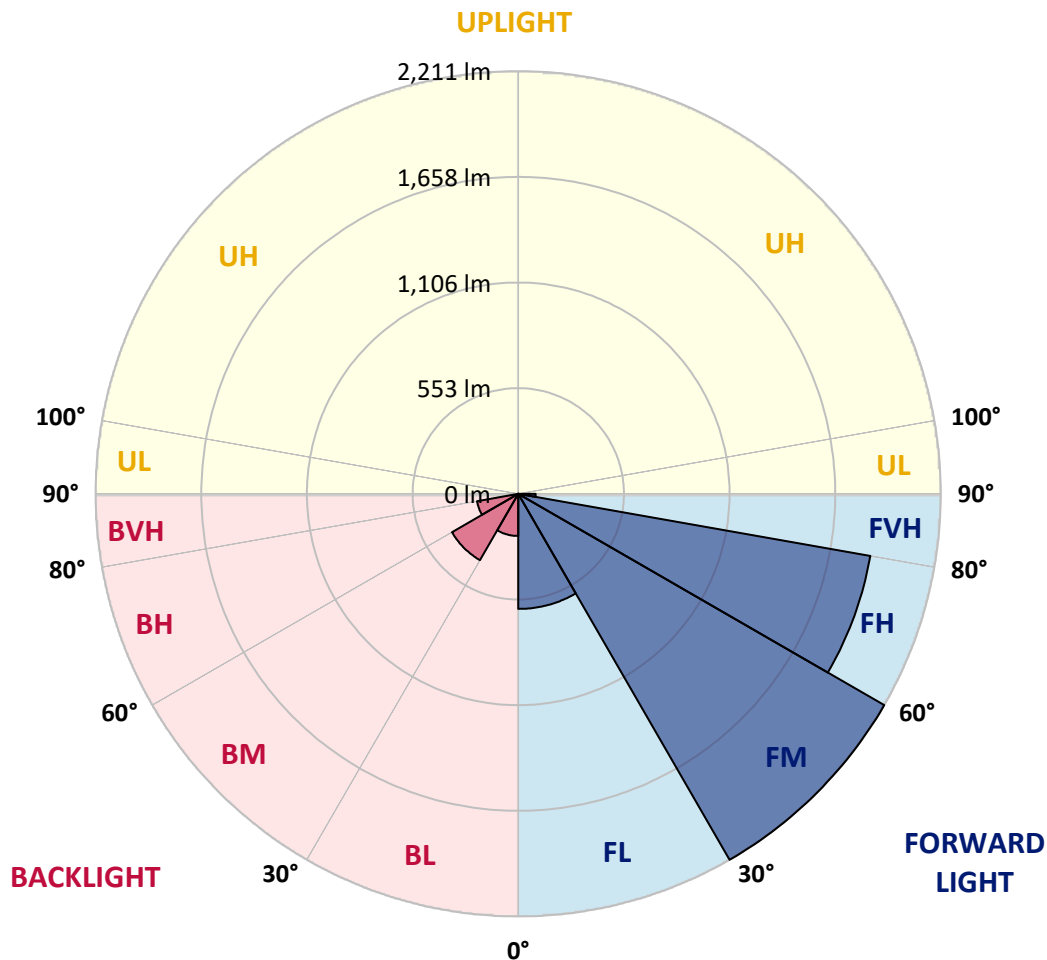


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	602.3	10.7			
FM (30°-60°)	2211.1	39.4			
FH (60°-80°)	1870.6	33.3			G2/5000
FVH (80°-90°)	90.9	1.6			G1/100
BL (0°-30°)	220.5	3.9	B1/500		
BM (30°-60°)	400.8	7.1	B1/1000		
BH (60°-80°)	219.0	3.9	B1/500		G1/500
BVH (80°-90°)	2.8	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°	1884.7	1884.7	1884.7	1884.7	1884.7	1884.7	1884.7	1884.7	1884.7	1884.7	1884.7
2.5°	2043.1	2046.3	2062.8	2101.1	2142.9	2146.1	2174.3	2145.3	2135.4	2088.6	2040.2
5°	2058.5	2070.8	2127.5	2240.0	2337.7	2369.1	2391.5	2334.5	2274.6	2160.2	2038.0
7.5°	1934.2	1954.7	2043.9	2255.2	2429.8	2507.0	2521.6	2432.4	2285.8	2097.4	1913.8
10°	1775.1	1798.5	1906.0	2165.8	2405.6	2537.8	2558.1	2441.2	2230.4	1995.7	1779.4
12.5°	1646.3	1673.7	1783.6	2065.2	2322.3	2468.6	2508.6	2411.7	2182.5	1923.6	1687.5
15°	1586.9	1618.3	1733.8	2000.2	2229.9	2345.2	2378.2	2336.4	2155.9	1912.2	1666.2
17.5°	1621.0	1655.1	1774.3	2005.8	2143.2	2192.4	2219.0	2236.0	2155.9	1981.1	1728.5
20°	1760.7	1797.5	1923.6	2062.5	2071.3	2052.9	2081.4	2141.3	2180.9	2112.0	1878.1
22.5°	1953.9	1997.1	2139.4	2159.7	2036.2	1966.7	1970.4	2064.4	2226.5	2278.1	2085.7
25°	2189.5	2242.2	2386.9	2304.4	2050.8	1915.3	1914.0	2001.0	2270.9	2444.4	2316.9
27.5°	2423.4	2481.4	2608.6	2481.1	2111.2	1906.0	1903.4	1981.9	2314.3	2592.4	2569.5
30°	2619.5	2676.0	2785.6	2609.2	2176.4	1927.9	1915.1	2002.4	2340.1	2688.5	2753.7
32.5°	2779.2	2824.5	2913.1	2697.2	2246.1	1970.2	1942.5	2057.2	2384.0	2769.6	2922.9
35°	2954.9	3002.5	3037.9	2781.1	2324.4	2031.1	1991.5	2144.2	2451.6	2852.1	3108.4
37.5°	3155.3	3202.6	3198.4	2857.7	2423.7	2132.0	2106.7	2282.1	2556.7	2933.8	3315.5
40°	3351.4	3399.8	3365.2	2941.6	2540.2	2298.3	2279.7	2489.1	2697.5	3038.4	3558.2
42.5°	3535.0	3587.5	3513.5	3020.9	2679.1	2508.0	2540.0	2755.8	2873.7	3167.2	3767.4
45°	3683.0	3736.5	3637.8	3098.0	2825.5	2762.4	2858.5	3051.2	3085.5	3276.1	3908.7
47.5°	3790.5	3841.1	3724.0	3175.2	3012.9	3073.6	3240.9	3361.0	3276.9	3370.6	4009.0
50°	3859.2	3898.6	3749.3	3271.8	3258.8	3436.6	3639.3	3697.9	3457.0	3455.7	4130.9
52.5°	3902.8	3920.6	3767.9	3372.7	3515.3	3831.8	4029.5	4047.9	3642.5	3549.4	4295.1
55°	4053.2	4067.6	3899.9	3494.8	3727.4	4178.0	4382.4	4365.4	3852.5	3732.8	4488.8
57.5°	4309.7	4324.9	4172.7	3670.5	3899.1	4392.0	4638.1	4668.7	4098.7	3990.4	4696.4
60°	4438.5	4466.8	4412.5	3893.0	4065.4	4528.8	4812.5	4910.1	4406.3	4330.0	4897.6
62.5°	4321.7	4362.7	4441.5	4139.7	4230.7	4604.1	4866.7	4996.6	4721.4	4725.7	5021.6
65°	4088.6	4121.3	4254.9	4274.9	4326.5	4594.8	4732.6	4875.8	4914.4	5089.2	5015.0
67.5°	3807.0	3819.3	3932.6	4285.5	4187.6	4314.8	4329.7	4435.6	4761.9	5218.0	4813.5
70°	3401.7	3408.3	3507.3	3929.2	3598.6	3626.6	3604.5	3626.0	4093.9	4904.3	4304.9
72.5°	2737.7	2754.5	2895.2	3263.0	2621.7	2541.0	2714.5	2705.0	3152.9	4143.4	3197.3
75°	2015.7	2044.7	2257.3	2628.3	1840.0	1664.4	1791.1	1824.9	2241.4	3205.0	1999.4
77.5°	1411.3	1432.9	1638.8	1932.1	1331.7	1190.1	1144.4	1184.6	1479.4	2318.5	1007.3
80°	813.0	821.0	952.5	1115.6	897.4	1026.7	930.1	957.8	886.5	1031.5	433.3
82.5°	532.0	533.3	584.7	664.0	558.9	649.4	480.6	614.5	545.3	414.4	141.0
85°	287.4	289.0	339.1	471.3	316.4	178.8	105.1	215.8	337.2	95.0	38.6
87.5°	31.7	29.0	102.2	171.4	87.8	16.2	5.6	24.2	54.0	6.1	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°	1884.7	1884.7	1884.7	1884.7	1884.7	1884.7	1884.7	1884.7	1884.7	1884.7	1884.7
2.5°	2015.4	1993.3	1938.2	1880.0	1833.1	1789.2	1745.0	1691.0	1649.2	1640.7	1626.9
5°	1972.3	1902.3	1786.8	1670.8	1577.4	1459.5	1384.7	1326.4	1269.4	1266.0	1254.5
7.5°	1821.7	1729.6	1567.0	1406.5	1275.0	1162.7	1049.4	973.5	913.9	892.9	880.4
10°	1676.9	1573.4	1370.3	1187.2	1069.8	970.6	890.7	811.4	739.6	690.1	667.7
12.5°	1575.8	1461.3	1237.5	1079.7	995.6	901.4	804.0	705.0	622.2	562.6	526.1
15°	1536.6	1414.5	1193.1	1037.1	933.3	814.1	689.5	576.4	484.6	430.6	397.9
17.5°	1583.2	1441.1	1189.6	985.2	840.2	691.9	554.4	420.8	334.3	293.3	272.3
20°	1701.4	1525.7	1188.3	921.6	729.5	547.2	375.5	276.8	224.3	201.5	191.6
22.5°	1868.5	1633.8	1198.9	858.8	614.2	390.9	259.2	203.3	176.4	164.2	158.6
25°	2083.5	1785.5	1229.0	801.9	505.9	291.7	202.0	170.3	151.4	141.8	137.9
27.5°	2312.7	1960.1	1275.8	752.4	417.8	232.6	173.0	145.8	132.3	125.6	121.9
30°	2501.6	2162.3	1323.2	697.3	354.0	202.8	158.3	133.1	117.4	113.1	109.6
32.5°	2666.9	2315.3	1356.7	647.5	312.2	180.2	143.2	119.0	108.3	100.1	96.3
35°	2838.0	2442.8	1355.7	612.6	283.4	163.1	130.4	106.5	93.7	84.1	81.2
37.5°	3023.3	2586.8	1332.5	582.8	270.9	149.6	123.2	99.8	87.0	77.4	73.7
40°	3240.2	2738.0	1308.8	554.9	267.5	138.7	118.2	94.5	80.9	71.6	67.9
42.5°	3451.5	2874.2	1288.1	534.1	252.6	138.4	113.6	90.5	76.1	67.1	62.8
45°	3620.5	3001.2	1284.1	521.6	236.9	143.2	111.2	87.8	72.4	63.3	59.3
47.5°	3761.0	3139.0	1309.6	512.8	222.0	130.7	117.1	86.0	68.9	60.1	55.6
50°	3928.1	3308.3	1369.8	498.5	206.3	117.6	134.1	86.5	66.0	57.0	52.2
52.5°	4161.2	3542.5	1458.1	474.2	184.7	105.7	132.0	87.0	62.8	53.5	48.7
55°	4422.6	3835.0	1553.1	434.1	154.6	90.0	113.1	83.3	56.7	49.8	45.2
57.5°	4697.2	4100.3	1609.6	386.2	123.0	77.7	90.5	75.8	50.0	44.7	41.8
60°	4740.3	4201.2	1583.7	327.3	97.7	67.6	67.1	77.2	44.7	39.4	37.3
62.5°	4633.1	4074.5	1458.9	274.9	81.7	59.3	55.1	67.3	40.5	35.1	33.0
65°	4426.8	3732.0	1256.7	247.8	75.8	50.8	45.8	47.4	35.4	30.6	28.7
67.5°	4139.9	3274.7	1031.8	232.3	75.0	43.6	39.1	35.9	30.6	26.6	25.0
70°	3553.4	2728.1	823.1	223.8	72.9	36.7	33.0	29.3	25.5	22.6	21.3
72.5°	2615.3	1933.2	640.3	214.5	73.5	29.3	28.7	24.2	20.5	17.6	17.0
75°	1511.1	1104.4	420.0	173.8	70.0	22.6	24.0	17.0	14.4	12.2	12.2
77.5°	805.3	673.6	159.9	72.4	25.5	14.4	13.6	10.1	9.0	7.5	7.2
80°	351.0	296.5	48.2	20.2	14.1	7.7	5.1	4.5	4.0	3.2	2.9
82.5°	124.3	107.3	15.7	9.8	6.1	0.0	0.0	0.0	0.0	0.0	0.0
85°	28.2	20.2	0.0	2.4	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°	1884.7	1884.7	1884.7	1884.7	1884.7	1884.7	1884.7	1884.7	1884.7	1884.7	1884.7
2.5°	1598.7	1592.8	1558.2	1559.5	1565.7	1574.4	1553.7	1563.3	1589.1	1613.8	1623.1
5°	1236.2	1237.5	1216.5	1229.5	1241.2	1249.2	1215.7	1216.2	1236.7	1264.7	1279.3
7.5°	871.0	868.9	870.0	901.1	923.2	907.2	919.8	876.4	879.0	899.0	884.1
10°	647.5	618.2	601.7	625.1	649.4	640.6	619.0	604.9	614.8	636.9	635.3
12.5°	508.8	466.8	442.0	425.3	445.2	428.7	428.2	416.0	402.7	405.1	440.4
15°	382.7	352.1	322.8	295.9	295.4	289.8	261.3	229.4	226.7	228.3	246.7
17.5°	263.2	252.8	240.8	217.7	211.6	188.2	160.5	147.7	141.3	144.2	150.4
20°	185.0	181.0	182.3	169.8	161.0	138.7	122.4	117.4	116.3	119.2	122.2
22.5°	153.3	146.1	145.3	139.7	130.9	114.7	105.9	103.0	101.7	104.3	106.5
25°	134.1	126.9	124.0	120.6	111.2	100.1	94.7	92.1	90.8	92.3	93.7
27.5°	118.2	111.5	108.8	106.5	97.4	89.4	85.2	82.8	81.7	82.2	83.6
30°	106.2	100.3	96.9	93.9	86.2	80.6	76.9	74.5	73.5	73.5	74.8
32.5°	93.7	90.5	87.3	83.6	76.4	72.7	68.9	66.3	65.2	65.5	66.5
35°	78.0	76.9	77.7	74.3	68.1	64.9	61.2	58.3	57.5	57.8	58.8
37.5°	69.2	64.4	67.3	65.5	62.0	57.8	53.0	50.3	49.0	49.8	50.3
40°	63.6	57.8	55.6	57.5	57.0	50.0	45.8	43.1	42.0	42.3	42.8
42.5°	58.8	51.9	47.1	46.8	50.0	43.6	39.1	36.7	35.4	35.4	35.9
45°	54.3	46.8	41.0	36.5	42.0	37.0	32.7	30.6	29.0	29.0	29.3
47.5°	50.8	42.6	35.7	29.8	31.7	30.3	26.9	24.8	23.2	23.2	23.4
50°	47.6	38.3	30.9	25.0	23.7	25.0	21.8	19.4	18.4	18.1	18.6
52.5°	44.2	34.1	26.3	21.3	18.6	18.9	17.0	15.4	14.1	14.1	14.6
55°	40.7	30.6	22.9	18.1	15.4	14.1	13.6	12.5	11.4	11.4	12.0
57.5°	37.3	26.9	19.4	14.9	12.2	11.2	11.2	10.4	9.6	9.6	10.1
60°	34.1	23.2	16.0	12.2	9.6	9.3	9.6	8.8	8.3	8.3	8.8
62.5°	30.3	19.7	13.0	10.1	7.7	7.5	8.3	7.7	7.2	7.2	7.7
65°	25.8	16.8	10.4	7.7	5.9	5.9	6.9	6.4	5.9	5.9	6.4
67.5°	21.8	14.1	8.0	5.6	4.3	4.5	5.9	5.3	5.1	5.1	5.6
70°	18.1	10.9	5.6	3.5	2.4	3.5	4.5	4.5	4.5	4.5	5.1
72.5°	13.6	7.5	3.2	1.3	1.1	2.4	3.7	4.3	4.0	4.0	4.8
75°	8.8	4.3	1.1	0.0	0.0	1.3	2.9	3.5	3.5	3.2	4.0
77.5°	5.1	1.3	0.0	0.0	0.0	0.0	1.9	1.6	1.3	1.1	1.9
80°	1.3	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°	1884.7	1884.7	1884.7	1884.7	1884.7	1884.7	1884.7	1884.7	1884.7	1884.7
2.5°	1660.7	1692.1	1736.2	1783.1	1855.2	1912.4	1968.6	2016.7	2035.4	2043.1
5°	1314.4	1360.5	1425.1	1508.2	1638.3	1755.4	1874.1	1993.6	2045.5	2058.5
7.5°	943.2	1002.0	1084.2	1188.3	1340.8	1492.5	1658.3	1833.6	1914.0	1934.2
10°	698.1	769.9	864.1	973.8	1119.3	1275.3	1456.0	1656.4	1748.2	1775.1
12.5°	495.3	592.4	718.6	851.9	978.0	1117.2	1300.1	1520.9	1617.3	1646.3
15°	290.9	384.8	534.1	712.7	874.2	1015.3	1201.1	1451.5	1557.7	1586.9
17.5°	166.9	213.7	326.5	525.6	744.9	940.2	1169.9	1468.8	1593.9	1621.0
20°	127.5	142.4	188.2	338.5	593.7	866.5	1169.9	1566.7	1720.8	1760.7
22.5°	111.5	122.4	141.0	202.0	437.0	787.5	1183.5	1708.3	1909.8	1953.9
25°	99.0	108.8	124.8	152.0	298.1	693.5	1215.7	1882.1	2132.2	2189.5
27.5°	88.6	97.9	112.3	133.1	203.9	580.2	1259.1	2085.9	2377.6	2423.4
30°	79.3	88.1	101.1	115.8	157.3	451.6	1296.1	2278.1	2570.3	2619.5
32.5°	70.5	78.5	90.2	101.1	128.8	334.0	1300.1	2430.3	2730.2	2779.2
35°	62.3	69.5	80.1	88.6	106.7	263.7	1238.0	2562.3	2890.2	2954.9
37.5°	54.3	61.2	70.5	76.9	93.9	215.0	1143.3	2709.5	3095.4	3155.3
40°	46.8	53.0	62.5	66.8	88.9	165.3	1040.3	2863.8	3296.6	3351.4
42.5°	39.9	45.8	55.1	63.3	78.0	123.5	929.1	3008.6	3477.5	3535.0
45°	33.3	39.4	48.7	67.1	64.7	92.3	810.1	3104.7	3620.5	3683.0
47.5°	26.9	33.8	46.6	63.9	51.6	67.9	715.9	3195.7	3728.8	3790.5
50°	21.6	28.5	52.4	57.0	42.3	51.9	676.5	3277.1	3799.8	3859.2
52.5°	17.6	24.0	49.5	43.6	35.4	42.8	697.8	3409.1	3865.6	3902.8
55°	14.6	18.9	29.8	30.3	30.1	36.5	724.1	3598.6	4035.6	4053.2
57.5°	12.8	15.2	20.8	23.4	25.3	32.5	724.7	3870.6	4298.8	4309.7
60°	10.9	13.3	17.3	18.9	21.8	29.0	698.3	3965.6	4402.3	4438.5
62.5°	9.6	11.7	14.4	15.7	18.4	26.1	636.6	3828.0	4260.2	4321.7
65°	8.5	10.6	12.0	13.3	16.2	23.4	534.9	3552.9	4024.4	4088.6
67.5°	7.5	9.3	10.6	12.0	14.6	20.8	393.9	3233.2	3753.8	3807.0
70°	6.7	8.3	9.6	10.6	12.8	17.6	239.0	2743.5	3379.6	3401.7
72.5°	6.4	7.5	8.8	9.6	11.2	15.4	121.1	2016.2	2701.8	2737.7
75°	5.6	6.7	8.0	8.5	9.8	13.3	49.2	1324.3	1957.9	2015.7
77.5°	4.5	6.1	7.2	7.7	8.5	10.9	25.0	846.3	1374.0	1411.3
80°	1.6	4.5	6.1	6.4	7.2	8.0	16.5	463.3	797.1	813.0
82.5°	0.0	2.9	4.8	4.5	5.1	6.1	10.6	220.4	526.1	532.0
85°	0.0	1.3	3.7	2.9	2.1	4.3	3.7	48.2	276.0	287.4
87.5°	0.0	0.0	0.3	1.3	1.1	1.6	0.5	0.3	25.0	31.7
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.

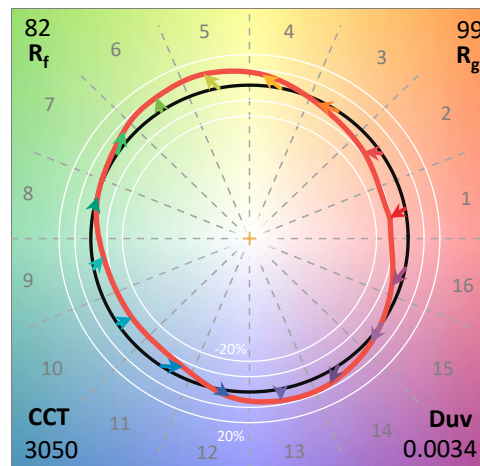
Test Information

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
 Rf: 81.5
 Rg: 99.2

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



Test Conditions

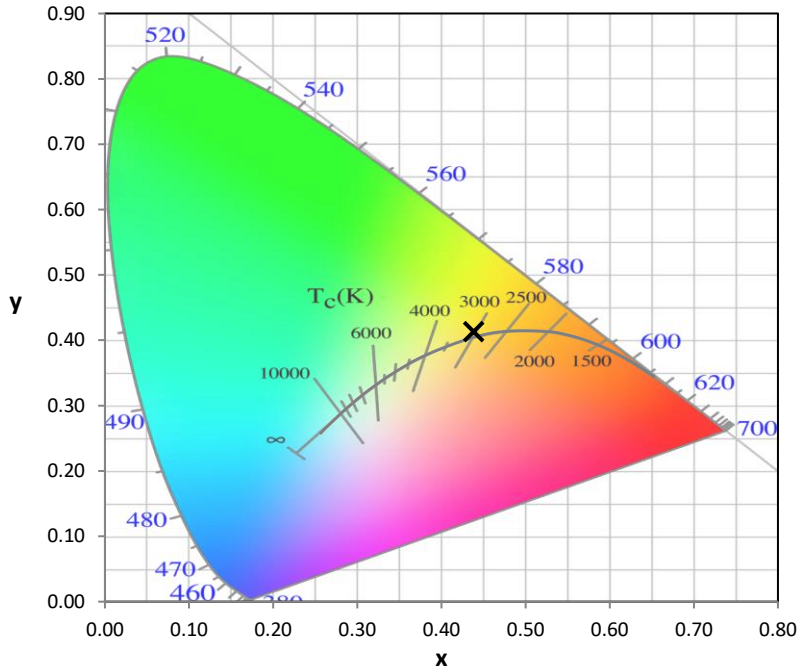
Stabilization Time: 20M
 Operation Time: 1H 20M
 Sphere Temperature (°C): 24.2

REPORT NUMBER: SP1-2408-195-9

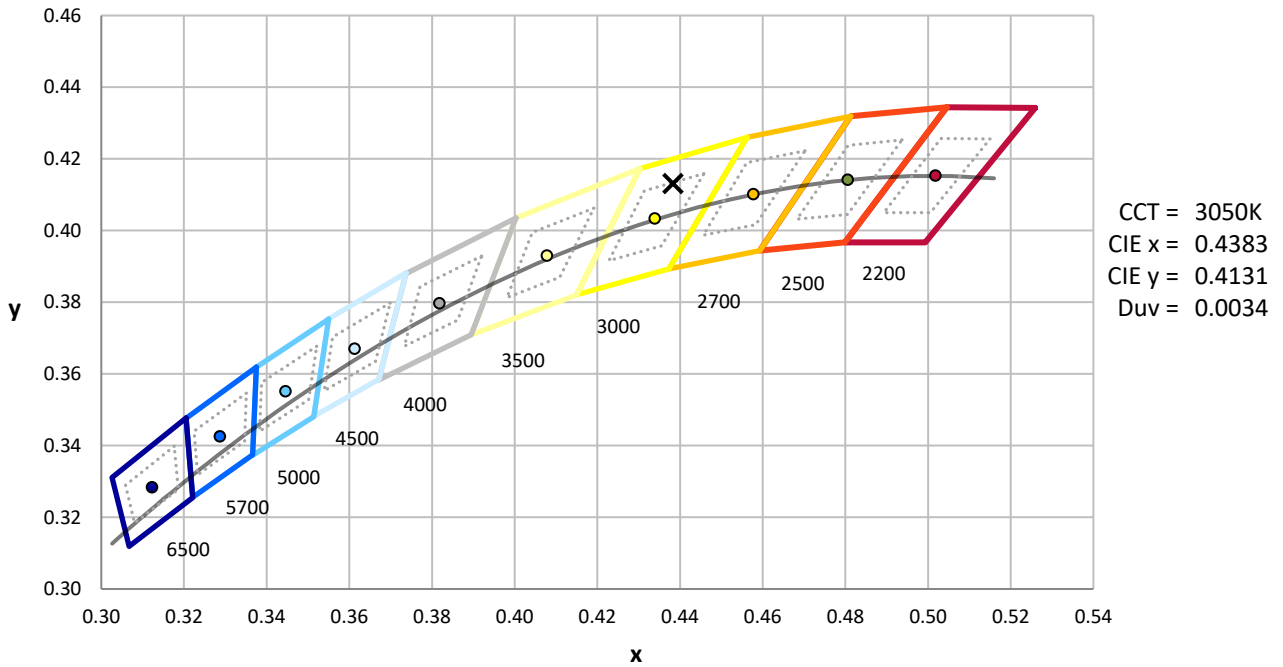
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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



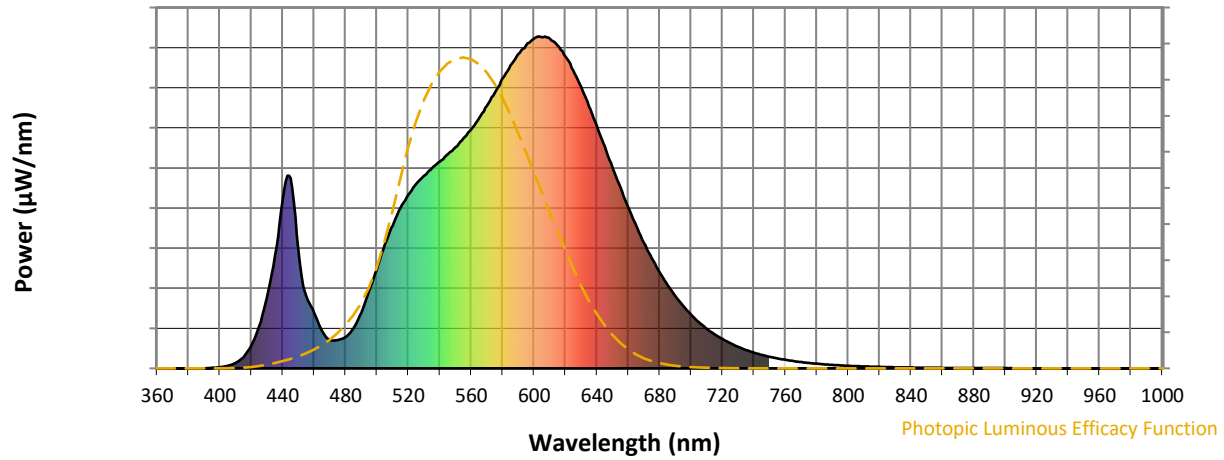
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 3000K 4-step quadrangle

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Photopic Flux vs. Wavelength

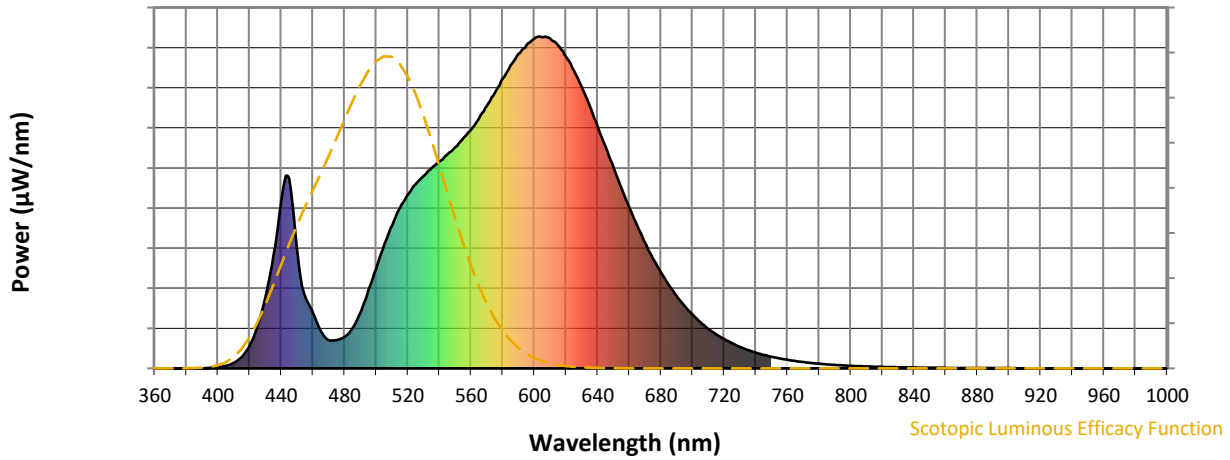


Photopic Lumens: NR

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



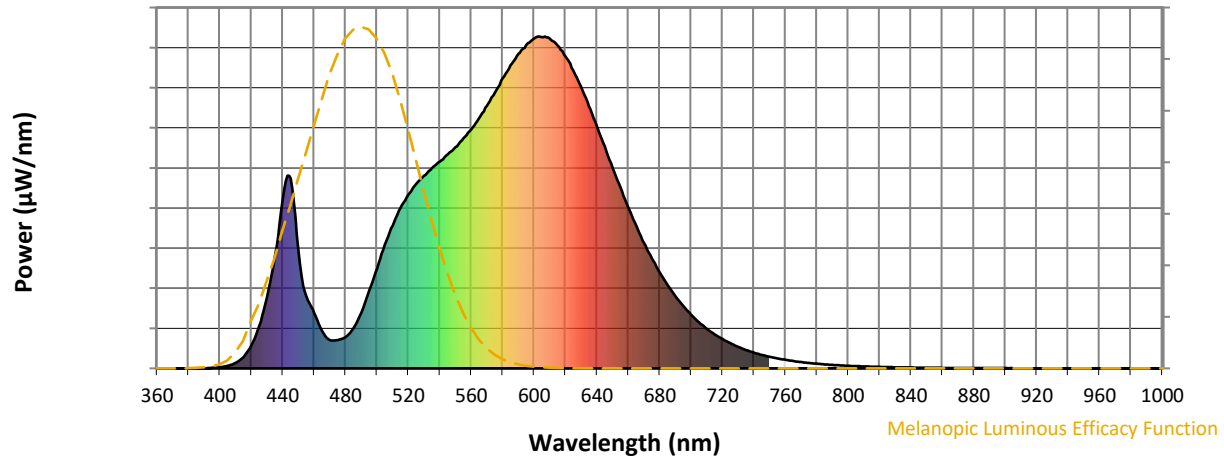
Scotopic Lumens: NR

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



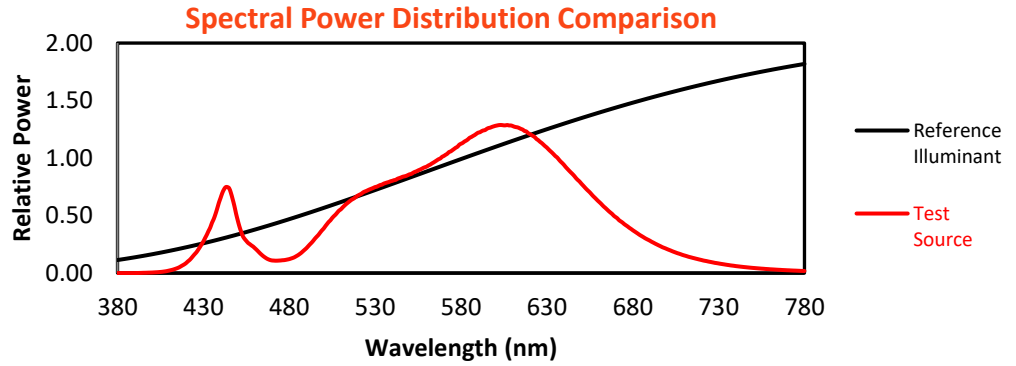
Melanopic Lumens: NR

M/P: 2.32

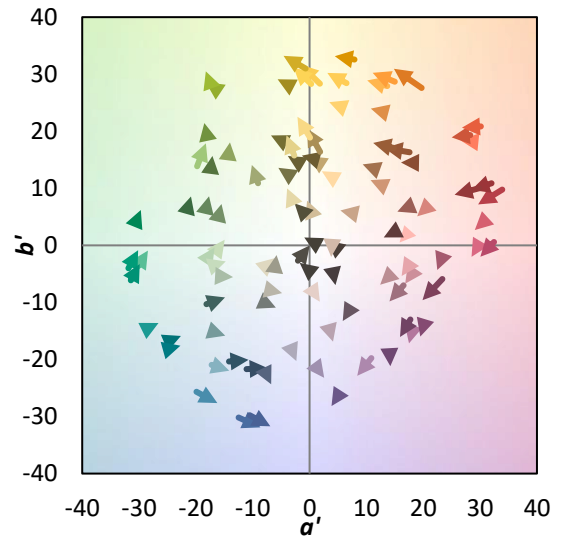
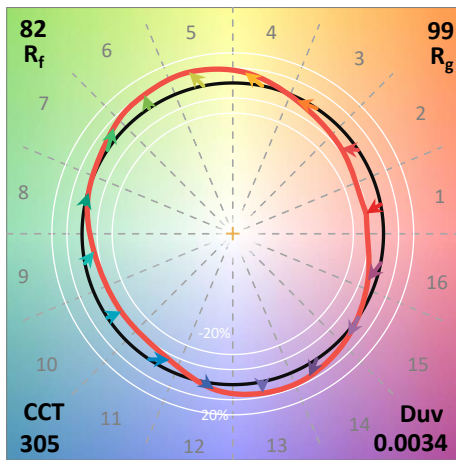
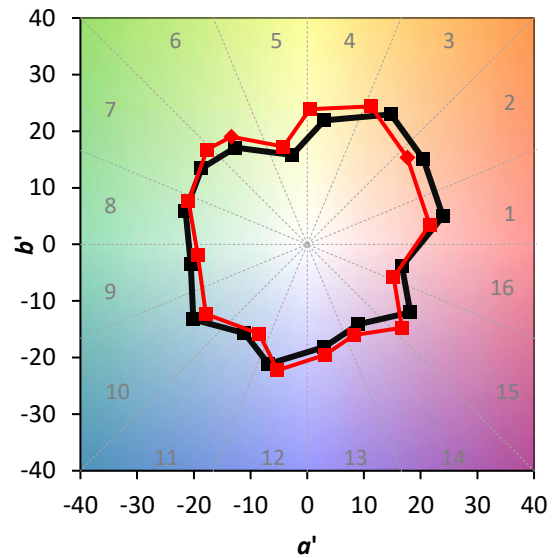
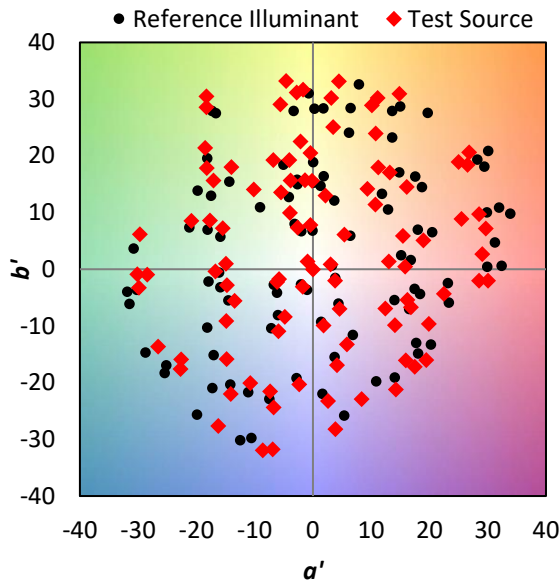
λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)
360	0	NR	490	168	NR	620	940	NR	750	35	NR	880	1	NR
365	0	NR	495	233	NR	625	897	NR	755	30	NR	885	1	NR
370	0	NR	500	300	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			

Summary

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

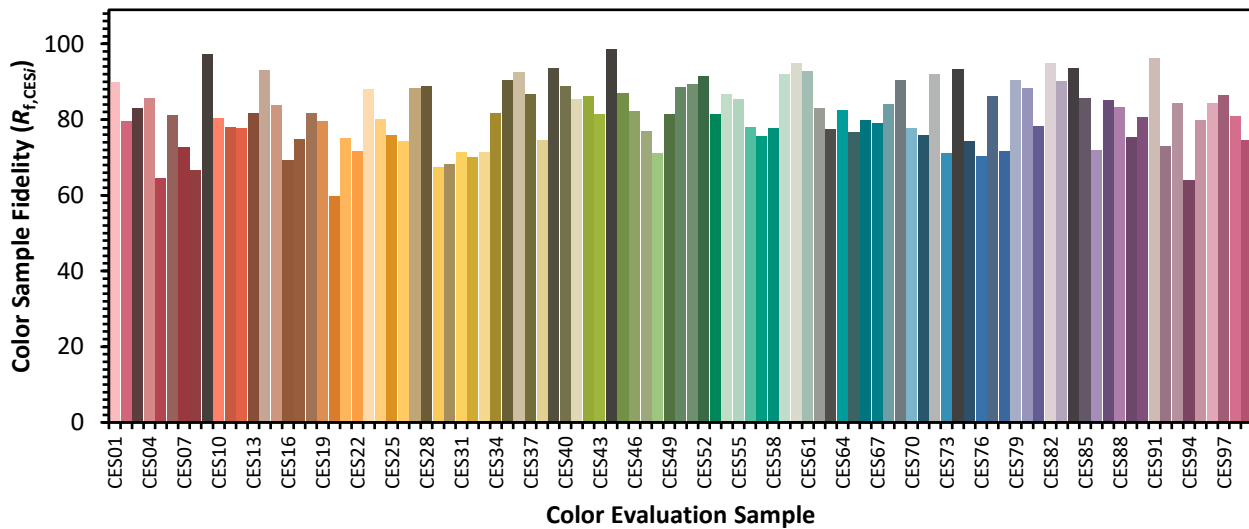


Color Vector Graphics

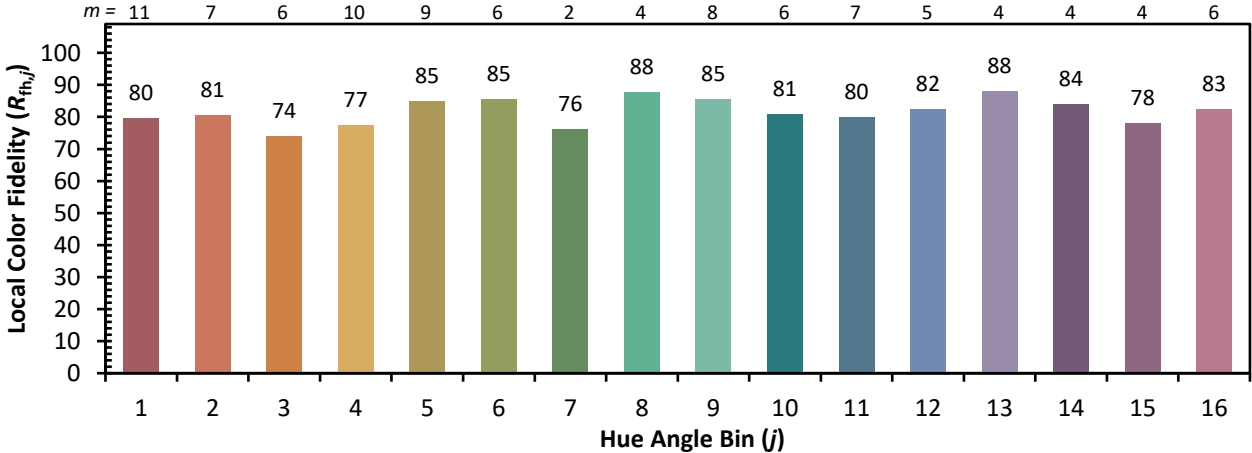
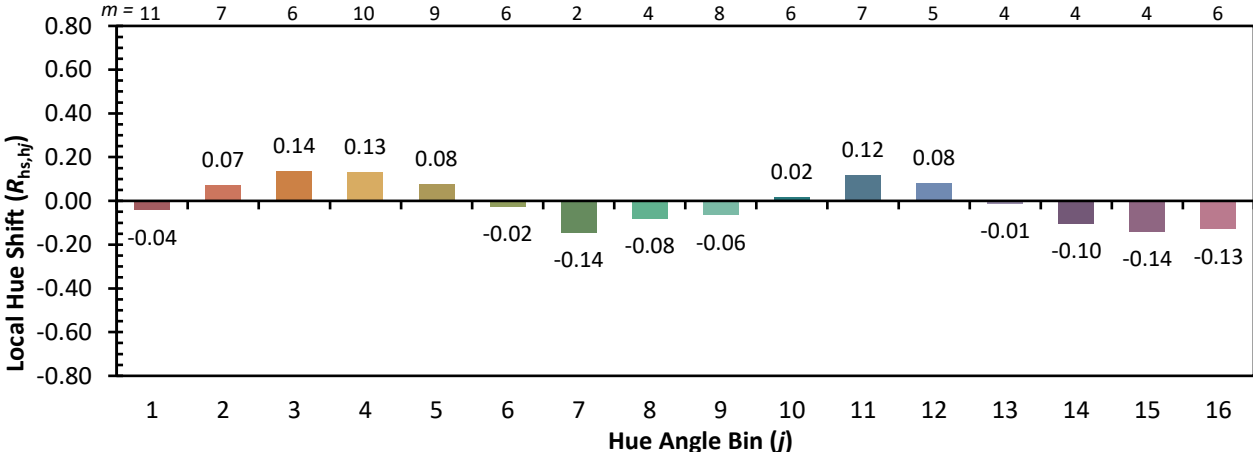
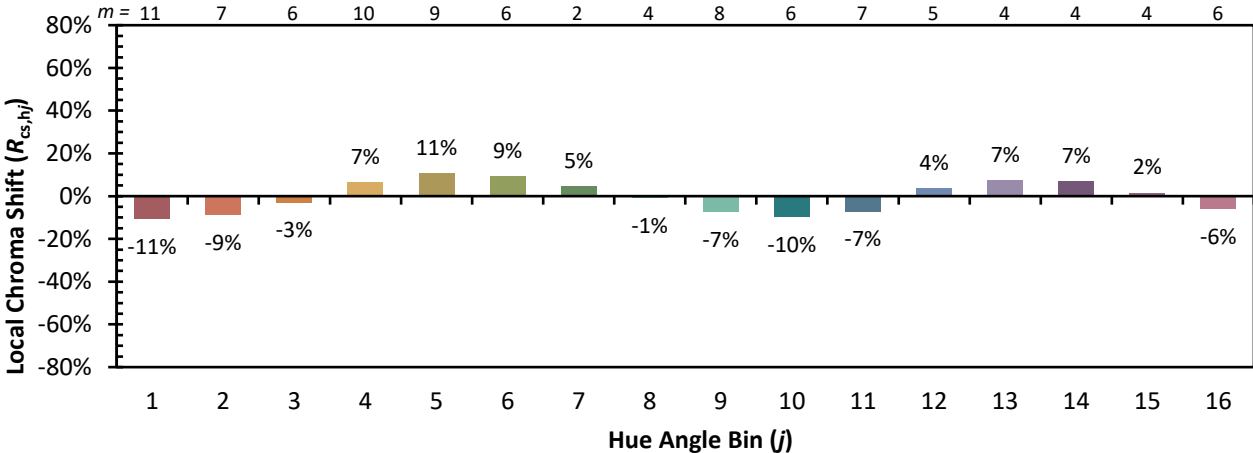


Individual Sample Fidelity Index ($R_{f,i}$)

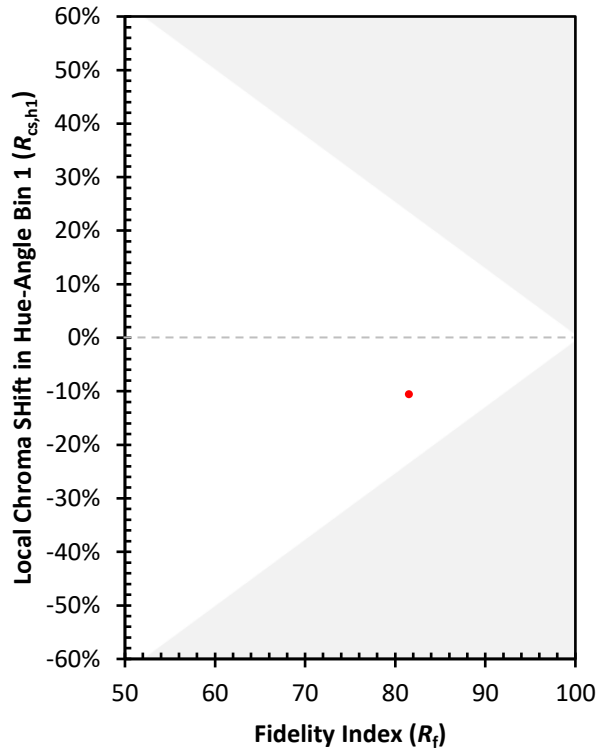
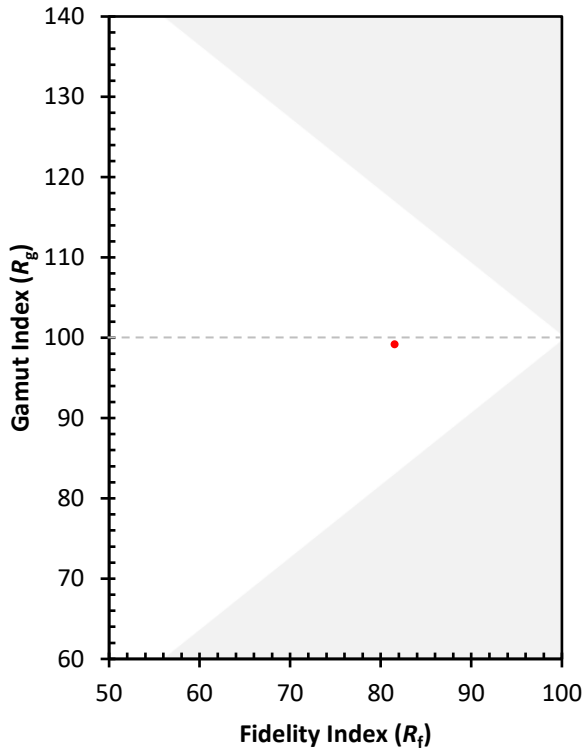
CES01 = 86	CES26 = 74	CES51 = 89	CES76 = 70
CES02 = 63	CES27 = 88	CES52 = 92	CES77 = 86
CES03 = 31	CES28 = 89	CES53 = 81	CES78 = 72
CES04 = 70	CES29 = 67	CES54 = 87	CES79 = 90
CES05 = 50	CES30 = 68	CES55 = 85	CES80 = 88
CES06 = 51	CES31 = 71	CES56 = 78	CES81 = 78
CES07 = 42	CES32 = 70	CES57 = 76	CES82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