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: P638486

Luminaire Tested: GWS-SA4E-830-U-SLR-W

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:	P638486
	TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-41)
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
Description:	GALLEON WALL SLIM LUMINAIRE. (4) LIGHTSQUARES WITH 16 LEDS EACH AND SPILL LIGHT ELIMINATOR RIGHT OPTICS
Light Source:	(64) 3000K CCT, 80 CRI LEDS
Ballast/Driver:	-

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	23018.1 lumens
Efficiency:	N/A
Efficacy:	113.6 lumens/watt
Luminous Opening:	Rectangular (W 1' x L: 1' x H: 0')
IES Classification:	Type III - Short
BUG Rating:	B3 - U0 - G4

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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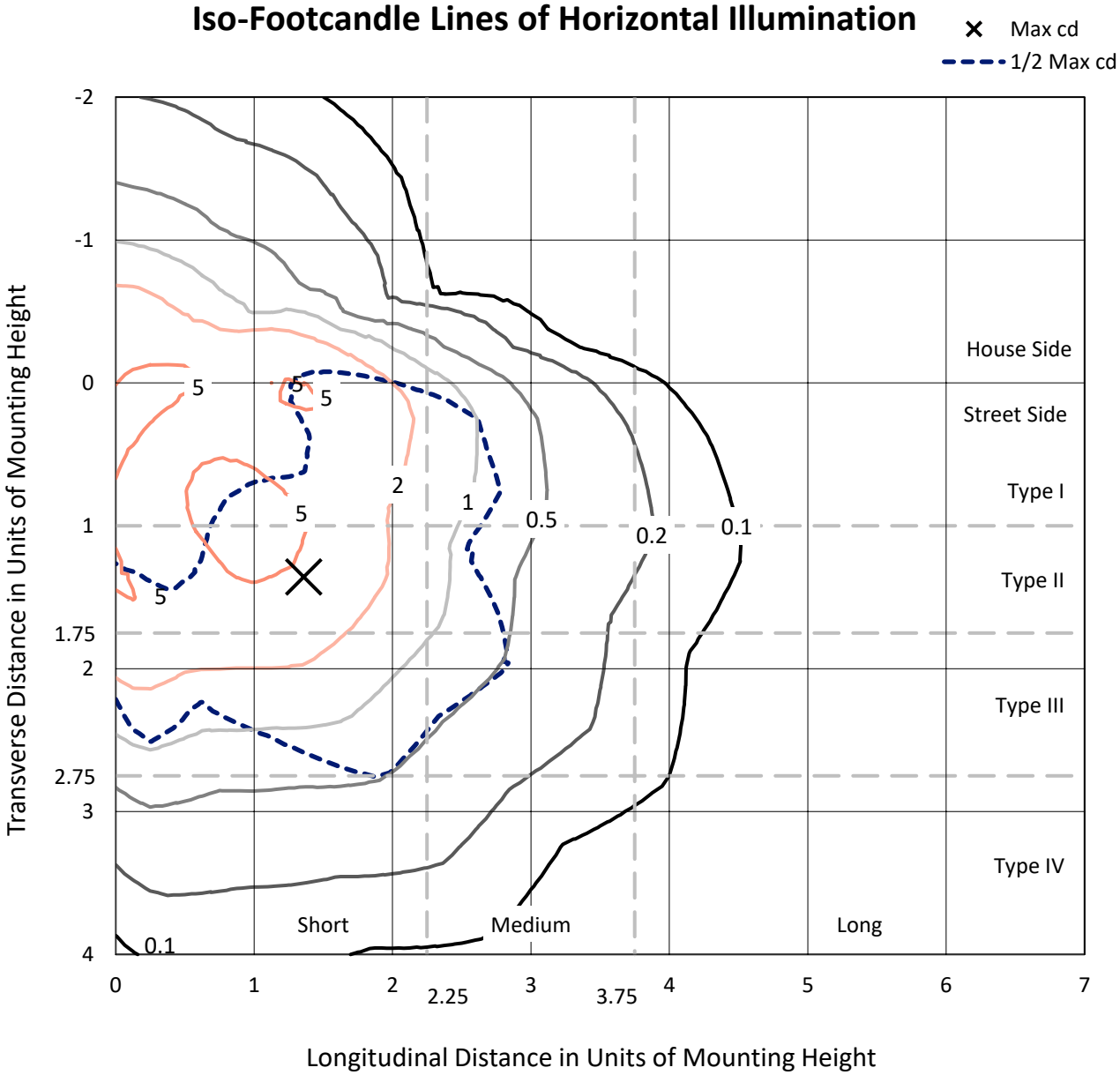
Iso-Footcandle Lines of Horizontal Illumination



Based on 25 foot mounting height. Maximum calculated value = 7 fc
Type III - Short - N/A

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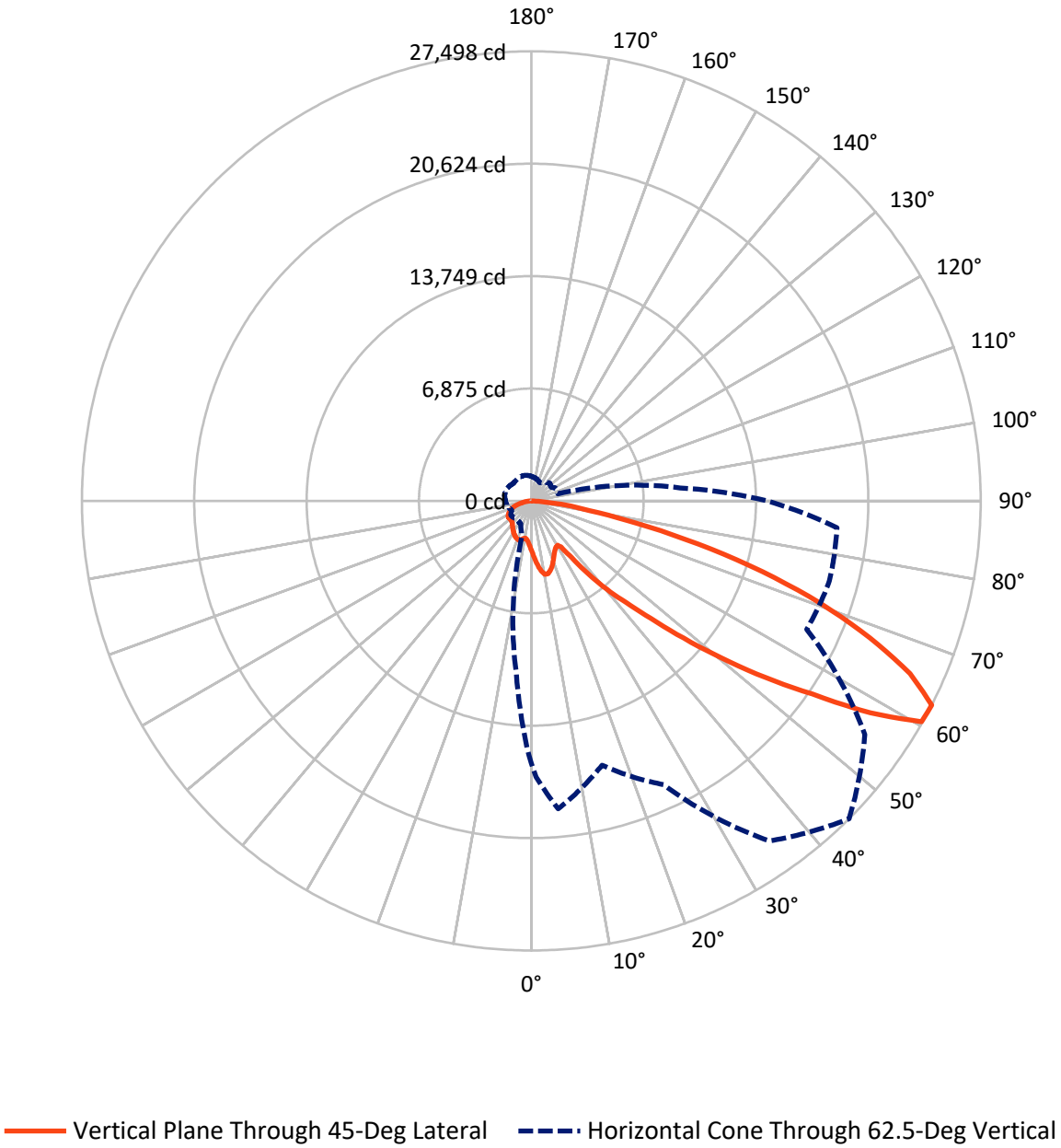
Luminous Intensity Polar Plot



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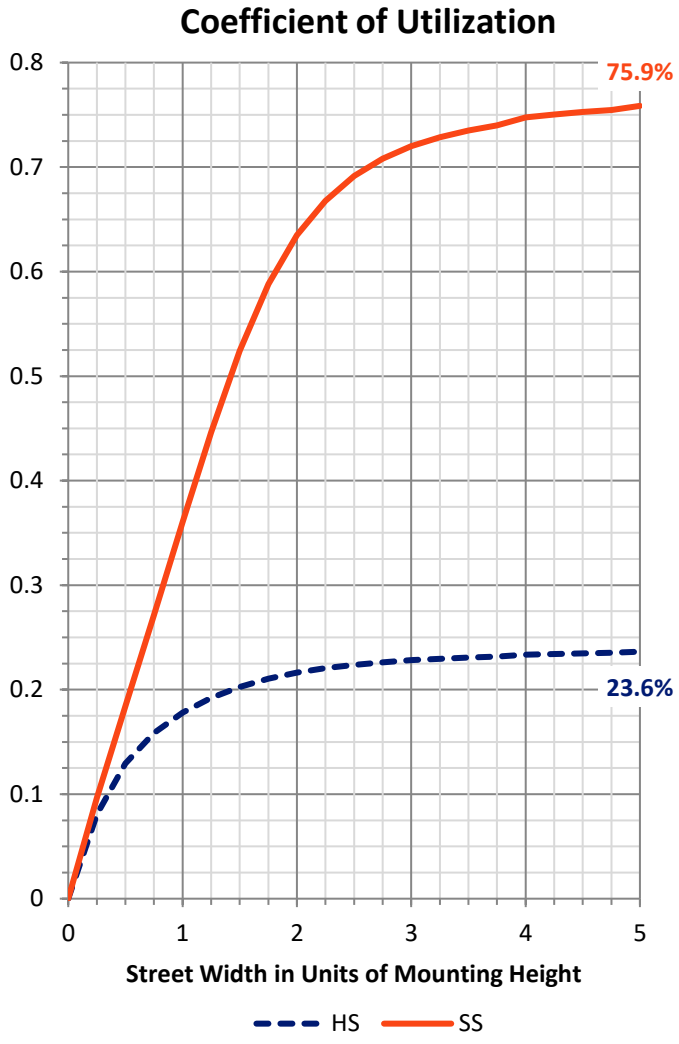
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5492.5	0.0	5492.5
	% Fixture	23.9	0.0	23.9
Street Side	Lumens	17525.5	0.0	17525.5
	% Fixture	76.1	0.0	76.1
Total	Lumens	23018.1	0.0	23018.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	298.4	1.3
10°-20°	935.3	4.1
20°-30°	1452.7	6.3
30°-40°	1972.4	8.6
40°-50°	3126.1	13.6
50°-60°	5514.5	24.0
60°-70°	6135.7	26.7
70°-80°	3111.8	13.5
80°-90°	471.2	2.0
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°	23018.1	100.0
0°-180°	23018.1	100.0



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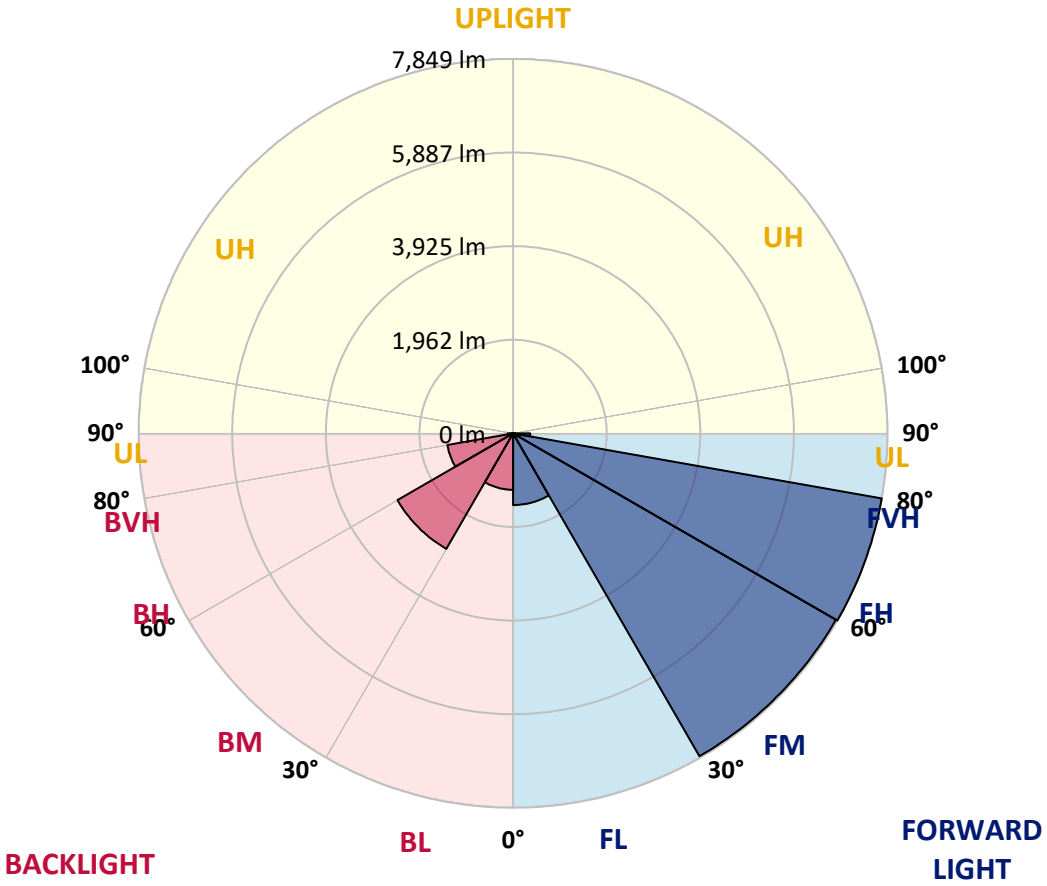
LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	1502.9	6.5			
FM	(30°-60°)	7815.6	34.0			
FH	(60°-80°)	7849.4	34.1			G4/12000
FVH	(80°-90°)	357.6	1.6			G3/500
BL	(0°-30°)	1183.5	5.1	B3/2500		
BM	(30°-60°)	2797.4	12.2	B3/5000		
BH	(60°-80°)	1398.1	6.1	B3/2500		G3/2500
BVH	(80°-90°)	113.5	0.5			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4
Type III Short



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CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	3055.0	3055.0	3055.0	3055.0	3055.0	3055.0	*3055.0*	3055.0	3055.0	3055.0	3055.0
2.5°	3283.3	3281.5	3314.6	3365.2	3412.2	3433.1	*3468.0*	3464.5	3436.6	3400.0	3387.8
5°	3541.2	3548.2	3605.7	3717.2	3840.9	3893.2	*3915.9*	3907.2	3856.6	3792.1	3678.9
7.5°	3774.7	3786.9	3875.8	4043.1	4196.4	4266.2	*4321.9*	4311.5	4238.3	4118.0	3950.7
10°	3945.5	3959.4	4065.7	4262.7	4433.5	4494.5	*4565.9*	4569.4	4504.9	4342.8	4172.0
12.5°	4116.3	4130.2	4229.6	4409.1	4520.6	4522.3	*4564.2*	4586.8	4590.3	4515.4	4344.6
15°	4294.0	4306.2	4396.9	4497.9	4492.7	4395.1	*4395.1*	4438.7	4534.5	4588.6	4470.1
17.5°	4445.7	4461.3	4531.0	4497.9	4342.8	4166.8	*4145.9*	4201.7	4369.0	4576.4	4564.2
20°	4571.1	4583.3	4621.7	4402.1	4119.8	3889.7	*3849.6*	3914.1	4140.7	4501.4	4635.6
22.5°	4691.4	4698.3	4677.4	4276.6	3879.3	3616.1	*3567.3*	3635.3	3879.3	4369.0	4696.6
25°	4834.3	4827.3	4728.0	4145.9	3659.7	3400.0	*3349.5*	3426.2	3680.6	4193.0	4762.8
27.5°	4999.8	4973.7	4771.5	4004.7	3490.6	3239.7	*3204.8*	3286.8	3523.8	4030.9	4815.1
30°	5141.0	5090.5	4778.5	3879.3	3403.5	3171.7	*3150.8*	3227.5	3447.1	3921.1	4881.3
32.5°	5297.8	5228.1	4818.6	3846.2	3452.3	3335.5	*3363.4*	3368.7	3468.0	3889.7	4980.7
35°	5522.7	5432.0	4928.4	3942.0	3954.2	4151.1	*4252.2*	4116.3	3783.4	3959.4	5168.9
37.5°	5862.5	5747.5	5151.5	4356.8	4991.1	5432.0	*5676.0*	5365.8	4741.9	4222.6	5452.9
40°	6275.5	6129.1	5437.3	5123.6	5960.1	6665.9	*7099.8*	6645.0	5728.3	4879.6	5852.0
42.5°	6852.3	6699.0	5991.4	5876.4	6857.6	7908.4	*8474.8*	7796.9	6597.9	5728.3	6491.6
45°	7857.9	7709.8	7007.4	6631.0	7908.4	9438.5	*10233.2*	9290.4	7481.5	6580.5	7687.1
47.5°	9715.6	9541.3	8516.6	7467.5	9107.4	11425.2	*12537.1*	11163.8	8399.9	7556.4	9694.7
50°	11946.3	11779.0	10411.0	8457.4	10431.9	13549.6	*15095.4*	13364.8	9457.7	8743.2	12094.4
52.5°	14630.1	14598.7	13113.9	9708.6	11810.4	15815.1	*17934.2*	15802.9	10616.6	10341.2	14813.0
55°	17048.9	17355.7	16547.0	11616.9	13591.4	18660.9	*20853.3*	18462.3	12188.5	12983.2	17997.0
57.5°	18352.5	19176.8	20419.3	15510.1	16181.1	22062.7	*24455.5*	21708.9	14889.7	17381.8	20949.1
60°	17491.6	18425.7	20677.3	18441.4	18749.8	24788.3	*27428.5*	24438.0	17542.1	20435.0	20781.8
62.5°	*16059.1*	*16897.3*	*18899.7*	*16730.0*	*19147.2*	*25387.8*	*27498.2*	*24913.8*	*18596.5*	*18885.8*	*18772.5*
65°	14359.9	15205.2	17326.0	14603.9	17883.7	23964.0	*25469.7*	23514.4	16702.1	17062.9	17104.7
67.5°	12103.1	12883.9	15043.1	12984.9	16301.3	21874.5	*22355.5*	21520.7	15381.2	15956.3	15355.0
70°	9042.9	9747.0	11653.5	10552.1	13741.3	19152.4	*18763.8*	18887.5	13898.1	14469.7	12826.4
72.5°	6179.7	6709.4	8344.1	8291.8	10522.5	15332.4	*14790.4*	15963.2	11608.2	12366.3	9778.3
75°	4321.9	4734.9	6031.5	6550.8	7953.7	11364.2	*10532.9*	11948.0	9065.6	10147.8	7134.7
77.5°	2652.4	2926.0	3809.6	4853.4	5116.6	7777.7	*6542.1*	8990.6	6366.1	7401.3	4759.3
80°	1326.2	1458.6	1850.8	3051.5	3393.1	4583.3	*3612.6*	5219.4	4308.0	4583.3	2633.2
82.5°	400.8	442.6	542.0	1158.9	1758.4	2638.5	*2134.8*	3032.3	2352.7	2148.8	1036.9
85°	106.3	120.2	149.9	343.3	616.9	946.3	*721.5*	1469.1	1127.5	792.9	390.4
87.5°	8.7	8.7	7.0	7.0	3.5	0.0	*0.0*	104.6	210.9	120.2	68.0
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°	3055.0	3055.0	3055.0	3055.0	3055.0	3055.0	3055.0	3055.0	3055.0	3055.0	3055.0
2.5°	3326.8	3319.9	3248.4	3196.1	3135.1	3075.9	3014.9	2960.9	2899.9	2838.9	2821.4
5°	3595.2	3546.4	3394.8	3267.6	3142.1	3032.3	2936.5	2837.1	2757.0	2678.5	2648.9
7.5°	3832.2	3746.8	3527.2	3333.8	3159.5	3023.6	2882.4	2737.8	2624.5	2513.0	2485.1
10°	4046.6	3933.3	3656.2	3412.2	3218.8	3063.7	2898.1	2704.7	2540.9	2404.9	2368.3
12.5°	4205.2	4081.4	3767.7	3487.2	3267.6	3093.3	2929.5	2758.7	2586.2	2410.2	2370.1
15°	4330.6	4201.7	3860.1	3544.7	3269.3	3044.5	2885.9	2826.7	2772.7	2600.1	2526.9
17.5°	4431.7	4295.8	3940.3	3579.5	3222.3	2896.4	2758.7	2845.8	2983.5	2875.5	2737.8
20°	4524.1	4386.4	4001.3	3603.9	3117.7	2692.5	2615.8	2800.5	3007.9	3004.4	2880.7
22.5°	4625.2	4491.0	4090.1	3617.9	2971.3	2485.1	2530.4	2734.3	2903.4	2953.9	2877.2
25°	4754.1	4635.6	4213.9	3649.2	2805.8	2342.2	2467.7	2648.9	2790.1	2802.3	2757.0
27.5°	4904.0	4815.1	4398.6	3722.4	2645.4	2269.0	2394.5	2528.7	2657.6	2662.9	2608.8
30°	5067.8	5008.6	4569.4	3783.4	2525.2	2246.4	2300.4	2408.4	2490.3	2504.3	2457.2
32.5°	5276.9	5224.6	4721.0	3743.3	2453.7	2241.1	2213.2	2269.0	2337.0	2337.0	2300.4
35°	5564.5	5491.3	4881.3	3590.0	2366.6	2220.2	2120.9	2136.6	2166.2	2171.4	2150.5
37.5°	5972.3	5852.0	5043.4	3286.8	2223.7	2145.3	2014.6	1995.4	2005.9	2019.8	2014.6
40°	6477.7	6280.7	5280.4	2922.5	2052.9	2000.6	1904.8	1868.2	1859.5	1887.4	1897.8
42.5°	7113.7	6812.3	5534.8	2582.7	1897.8	1835.1	1775.8	1744.5	1730.5	1777.6	1805.4
45°	8129.7	7633.1	5778.8	2246.4	1810.7	1693.9	1653.8	1631.2	1638.1	1693.9	1728.8
47.5°	9884.7	8886.1	6010.6	2033.7	1803.7	1592.8	1544.0	1549.3	1568.4	1627.7	1669.5
50°	12104.9	10564.3	6165.7	1944.9	1824.6	1531.8	1467.4	1495.2	1524.9	1582.4	1631.2
52.5°	14365.2	12127.5	5981.0	1896.1	1822.9	1533.6	1395.9	1479.6	1493.5	1551.0	1603.3
55°	15919.7	12301.8	5167.1	1821.1	1795.0	1603.3	1340.1	1472.6	1481.3	1533.6	1580.6
57.5°	16512.2	11705.8	3940.3	1842.0	1711.3	1657.3	1315.7	1423.8	1486.5	1531.8	1580.6
60°	15795.9	10581.7	2394.5	1896.1	1577.2	1653.8	1331.4	1334.9	1443.0	1519.6	1568.4
62.5°	*14445.3*	*9138.8*	*1681.7*	*1742.7*	*1479.6*	*1561.5*	*1368.0*	*1230.4*	*1366.3*	*1458.6*	*1502.2*
65°	12897.8	7441.4	1282.6	1500.5	1432.5	1418.6	1380.2	1138.0	1261.7	1352.3	1390.7
67.5°	11285.8	5784.1	1042.1	1118.8	1294.8	1282.6	1261.7	1056.1	1138.0	1202.5	1246.0
70°	9255.5	4046.6	880.1	840.0	1110.1	1150.2	1103.1	953.3	979.4	1045.6	1080.5
72.5°	6770.4	2521.7	723.2	693.6	892.3	1005.5	981.1	840.0	852.2	914.9	942.8
75°	4869.1	1443.0	580.3	571.6	681.4	860.9	812.1	723.2	737.2	784.2	803.4
77.5°	3095.1	803.4	447.9	460.1	488.0	643.1	693.6	618.7	618.7	646.5	662.2
80°	1657.3	460.1	327.6	332.9	341.6	491.4	547.2	479.2	479.2	460.1	479.2
82.5°	676.2	264.9	224.8	209.1	228.3	336.3	383.4	305.0	318.9	287.5	294.5
85°	223.1	132.4	111.5	109.8	108.0	148.1	184.7	151.6	181.2	115.0	120.2
87.5°	29.6	24.4	13.9	10.5	12.2	5.2	10.5	12.2	12.2	8.7	8.7
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°	3055.0	3055.0	3055.0	3055.0	3055.0	3055.0	3055.0	3055.0	3055.0	3055.0	3055.0
2.5°	2809.2	2795.3	2744.8	2757.0	2748.3	2734.3	2748.3	2722.1	2743.0	2750.0	2793.6
5°	2626.3	2593.2	2544.4	2520.0	2514.7	2500.8	2502.5	2490.3	2493.8	2523.4	2572.2
7.5°	2462.5	2431.1	2392.7	2375.3	2359.6	2343.9	2342.2	2340.5	2354.4	2380.5	2427.6
10°	2343.9	2326.5	2310.8	2317.8	2310.8	2303.9	2291.7	2291.7	2314.3	2361.4	2418.9
12.5°	2343.9	2340.5	2343.9	2364.9	2363.1	2364.9	2349.2	2357.9	2420.6	2500.8	2582.7
15°	2469.4	2441.5	2441.5	2452.0	2448.5	2448.5	2448.5	2485.1	2628.0	2751.7	2838.9
17.5°	2622.8	2540.9	2506.0	2500.8	2499.0	2499.0	2506.0	2584.4	2807.5	2938.2	2988.7
20°	2729.1	2574.0	2516.5	2493.8	2495.6	2499.0	2520.0	2628.0	2873.7	2940.0	2927.8
22.5°	2748.3	2547.8	2478.1	2445.0	2450.3	2453.7	2485.1	2600.1	2783.1	2793.6	2769.2
25°	2659.4	2474.6	2399.7	2373.6	2380.5	2378.8	2406.7	2490.3	2621.0	2617.6	2603.6
27.5°	2526.9	2357.9	2302.1	2284.7	2296.9	2283.0	2291.7	2356.1	2457.2	2453.7	2448.5
30°	2391.0	2244.6	2194.1	2185.4	2201.0	2180.1	2181.9	2235.9	2305.6	2302.1	2300.4
32.5°	2255.1	2131.3	2086.0	2086.0	2101.7	2079.1	2082.5	2129.6	2176.6	2162.7	2162.7
35°	2126.1	2039.0	2002.4	1995.4	2007.6	1991.9	1998.9	2042.5	2059.9	2040.7	2028.5
37.5°	2012.8	1974.5	1937.9	1913.5	1915.2	1917.0	1937.9	1971.0	1960.5	1932.7	1917.0
40°	1908.3	1908.3	1873.4	1828.1	1822.9	1835.1	1869.9	1906.5	1876.9	1845.5	1826.4
42.5°	1833.3	1849.0	1815.9	1770.6	1760.1	1781.1	1819.4	1845.5	1810.7	1775.8	1749.7
45°	1763.6	1802.0	1779.3	1728.8	1714.8	1739.2	1788.0	1798.5	1751.4	1718.3	1699.1
47.5°	1714.8	1767.1	1751.4	1702.6	1681.7	1716.6	1767.1	1765.4	1706.1	1671.3	1655.6
50°	1680.0	1746.2	1744.5	1702.6	1680.0	1723.5	1768.9	1746.2	1681.7	1645.1	1629.4
52.5°	1652.1	1744.5	1756.7	1732.3	1716.6	1754.9	1782.8	1739.2	1664.3	1625.9	1613.8
55°	1639.9	1751.4	1760.1	1737.5	1723.5	1758.4	1782.8	1753.2	1664.3	1629.4	1619.0
57.5°	1643.4	1742.7	1744.5	1713.1	1688.7	1732.3	1770.6	1761.9	1683.5	1643.4	1631.2
60°	1622.5	1695.7	1699.1	1650.3	1622.5	1674.7	1742.7	1737.5	1674.7	1632.9	1610.3
62.5°	*1552.8*	*1617.2*	*1619.0*	*1573.7*	*1533.6*	*1608.5*	*1683.5*	*1681.7*	*1624.2*	*1582.4*	*1556.2*
65°	1436.0	1504.0	1521.4	1477.8	1446.4	1526.6	1605.0	1601.6	1544.0	1505.7	1479.6
67.5°	1291.3	1364.5	1397.7	1368.0	1355.8	1429.0	1502.2	1500.5	1453.4	1416.8	1394.2
70°	1115.3	1176.3	1232.1	1232.1	1223.4	1307.0	1385.5	1378.5	1334.9	1307.0	1289.6
72.5°	968.9	1016.0	1033.4	1050.9	1077.0	1164.1	1230.4	1235.6	1204.2	1190.3	1204.2
75°	824.3	853.9	869.6	855.7	901.0	991.6	1078.7	1087.5	1054.3	1031.7	1036.9
77.5°	677.9	711.0	726.7	695.3	691.9	806.9	913.2	932.4	904.5	869.6	880.1
80°	489.7	533.3	559.4	538.5	531.5	582.1	728.5	749.4	723.2	695.3	711.0
82.5°	299.7	324.1	331.1	352.0	395.6	416.5	468.8	538.5	519.3	494.9	538.5
85°	118.5	141.2	156.8	177.8	207.4	245.7	289.3	345.1	313.7	303.2	357.3
87.5°	7.0	1.7	0.0	3.5	29.6	57.5	123.7	170.8	142.9	153.4	184.7
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: P638486
CATALOG NUMBER: GWS-SA4E-830-U-SLR-W

CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	3055.0	3055.0	3055.0	3055.0	3055.0	3055.0	3055.0	3055.0	3055.0	3055.0
2.5°	2828.4	2873.7	2934.7	2985.3	3049.7	3110.7	3173.5	3236.2	3269.3	3283.3
5°	2628.0	2711.7	2809.2	2917.3	3042.8	3175.2	3309.4	3447.1	3534.2	3541.2
7.5°	2507.8	2628.0	2762.2	2898.1	3053.2	3236.2	3448.8	3661.4	3750.3	3774.7
10°	2546.1	2680.3	2786.6	2913.8	3084.6	3312.9	3563.8	3813.1	3915.9	3945.5
12.5°	2699.5	2725.6	2758.7	2875.5	3084.6	3379.1	3682.3	3978.6	4088.4	4116.3
15°	2826.7	2701.2	2641.9	2765.7	3042.8	3436.6	3807.8	4135.5	4267.9	4294.0
17.5°	2837.1	2621.0	2492.1	2603.6	2969.6	3476.7	3928.1	4309.7	4421.3	4445.7
20°	2730.8	2535.6	2368.3	2436.3	2870.2	3494.1	4015.2	4436.9	4546.7	4571.1
22.5°	2610.6	2465.9	2284.7	2281.2	2750.0	3513.3	4119.8	4557.2	4675.7	4691.4
25°	2497.3	2370.1	2216.7	2167.9	2610.6	3549.9	4260.9	4738.4	4829.1	4834.3
27.5°	2364.9	2267.3	2162.7	2115.7	2488.6	3619.6	4470.1	4954.5	5008.6	4999.8
30°	2244.6	2171.4	2124.4	2110.4	2411.9	3671.9	4668.7	5167.1	5170.6	5141.0
32.5°	2117.4	2089.5	2089.5	2134.8	2349.2	3659.7	4830.8	5374.5	5341.4	5297.8
35°	2004.1	2009.3	2045.9	2152.2	2244.6	3537.7	4985.9	5634.2	5585.4	5522.7
37.5°	1896.1	1936.2	1988.4	2091.3	2106.9	3356.5	5167.1	6001.9	5940.9	5862.5
40°	1803.7	1864.7	1925.7	1976.2	1960.5	3098.5	5419.8	6434.1	6366.1	6275.5
42.5°	1730.5	1789.8	1857.7	1863.0	1868.2	2830.2	5688.2	6963.9	6951.7	6852.3
45°	1683.5	1721.8	1786.3	1777.6	1863.0	2533.9	5935.7	7772.5	7932.8	7857.9
47.5°	1652.1	1681.7	1688.7	1725.3	1908.3	2269.0	6254.6	9354.9	9801.0	9715.6
50°	1634.7	1664.3	1585.9	1728.8	1915.2	2098.2	6695.5	11341.6	12059.6	11946.3
52.5°	1632.9	1625.9	1507.4	1765.4	1876.9	1993.7	6925.5	12791.5	14384.3	14630.1
55°	1636.4	1549.3	1467.4	1775.8	1800.2	1955.3	6155.3	13488.6	16529.6	17048.9
57.5°	1605.0	1465.6	1490.0	1734.0	1655.6	2058.1	4550.2	13239.4	17387.0	18352.5
60°	1545.8	1385.5	1531.8	1620.7	1507.4	1882.1	3133.4	12127.5	16498.2	17491.6
62.5°	*1460.4*	*1329.7*	*1526.6*	*1474.3*	*1453.4*	*1540.6*	*2154.0*	*10571.3*	*15088.4*	*16059.1*
65°	1364.5	1284.4	1444.7	1333.2	1345.4	1185.0	1523.1	8814.6	13404.9	14359.9
67.5°	1261.7	1256.5	1324.5	1186.8	1136.2	939.3	1110.1	7064.9	11242.2	12103.1
70°	1145.0	1183.3	1204.2	1054.3	921.9	737.2	824.3	4940.6	8293.6	9042.9
72.5°	1028.2	1031.7	1061.3	916.7	690.1	590.8	618.7	2992.2	5634.2	6179.7
75°	909.7	876.6	904.5	745.9	514.1	484.5	477.5	1849.0	3891.5	4321.9
77.5°	782.5	745.9	709.3	561.2	413.0	374.7	366.0	1036.9	2387.5	2652.4
80°	636.1	587.3	529.8	411.3	301.5	268.4	266.6	505.4	1190.3	1326.2
82.5°	494.9	402.6	386.9	256.2	186.5	163.8	174.3	193.4	359.0	400.8
85°	346.8	292.8	205.6	102.8	83.7	68.0	66.2	57.5	95.8	106.3
87.5°	193.4	127.2	66.2	12.2	13.9	15.7	12.2	8.7	8.7	8.7
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.

Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

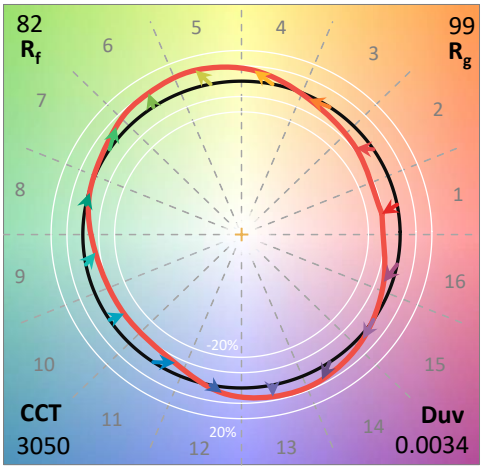
Test Information

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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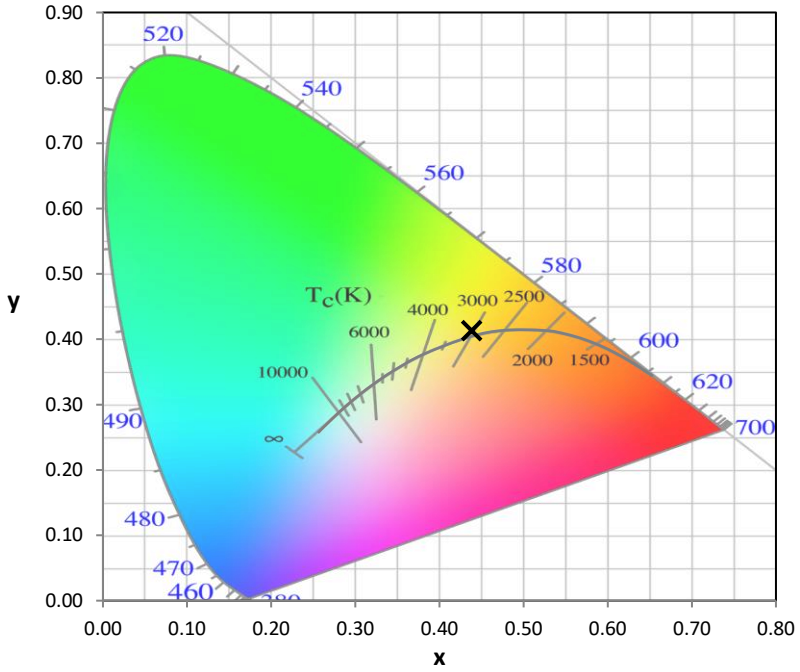
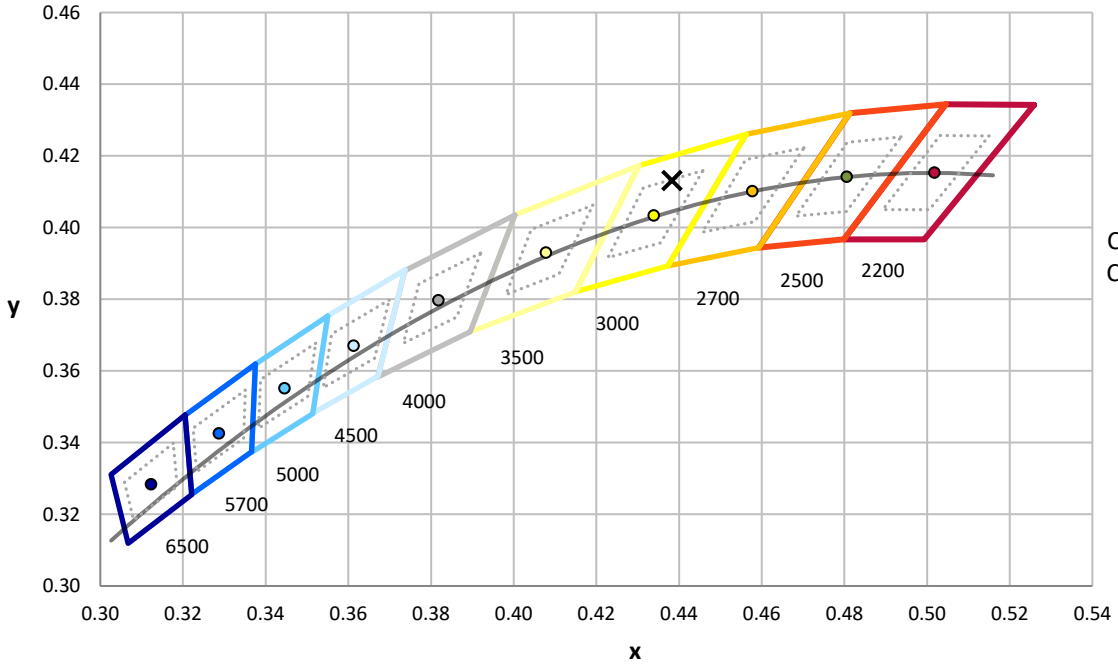
CIE 1931 Chromaticity Diagram



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

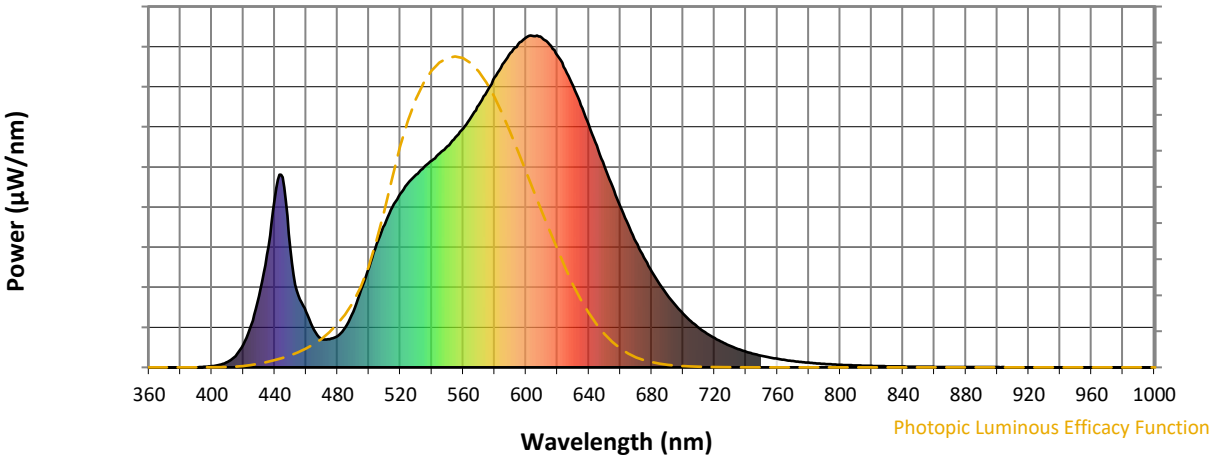


CCT = 3050K
CIE x = 0.4383
CIE y = 0.4131
Duv = 0.0034

Point lies inside the ANSI 3000K 4-step quadrangle

REPORT NUMBER: SP1-2408-195-9

Photopic Flux vs. Wavelength

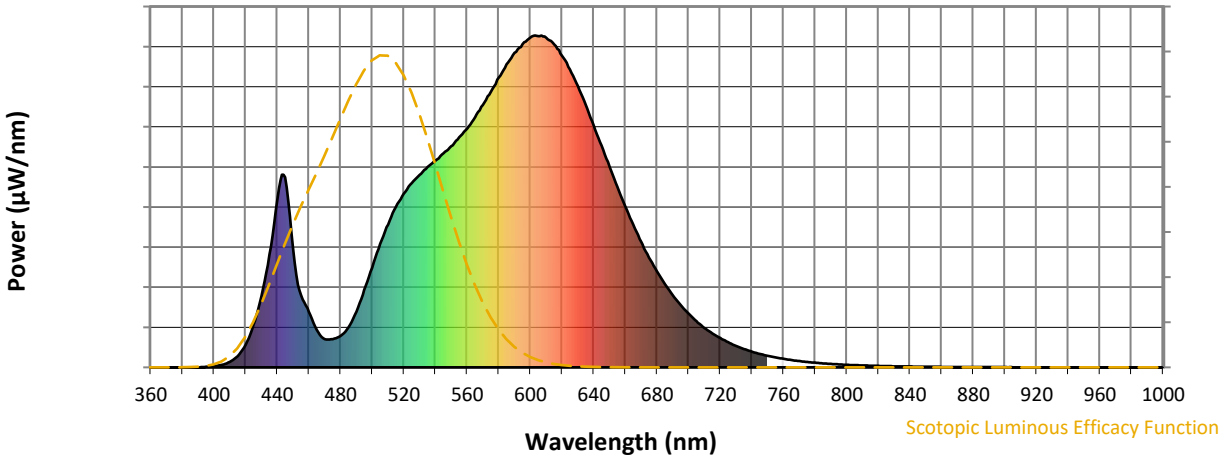


Photopic Lumens: NR

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

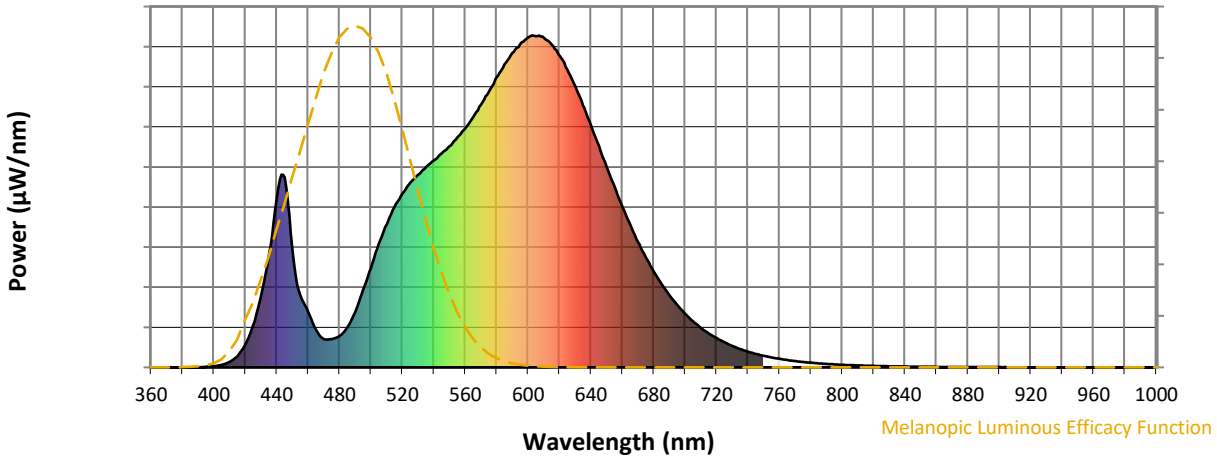


Scotopic Lumens: NR **S/P: 1.27**

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			

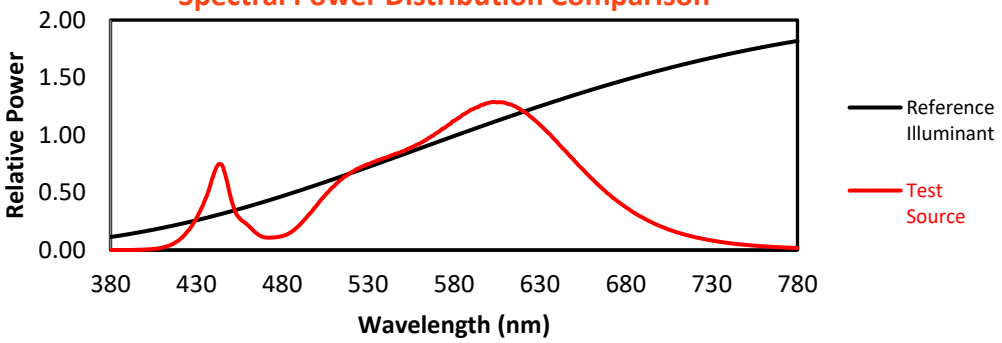
REPORT NUMBER: SP1-2408-195-9

TM-30-18

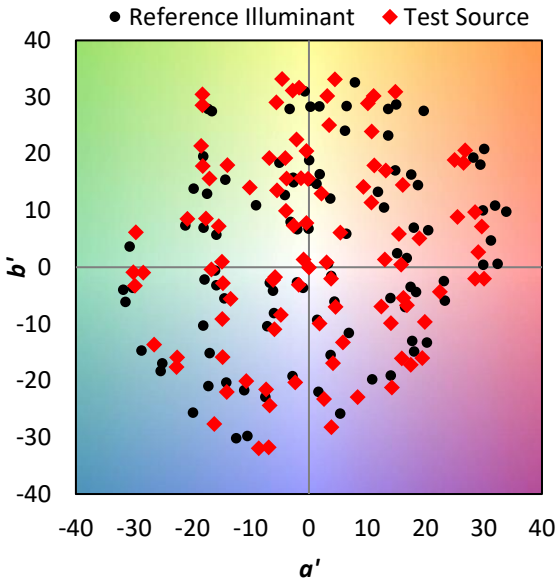
Summary

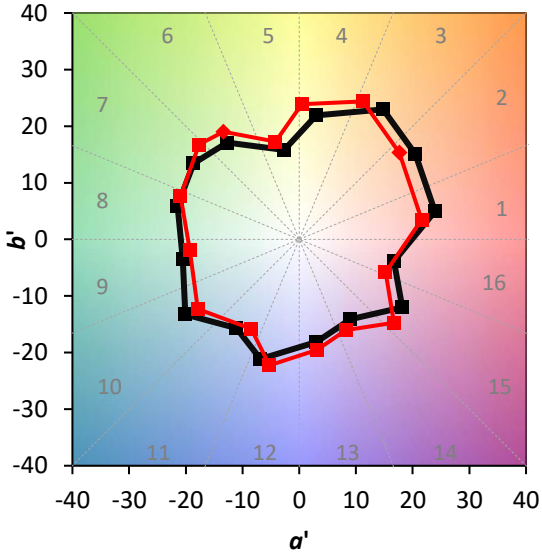
R_f = 81.5
R_g = 99.2
CIE R_a = 81.0
R_9 = 7.1

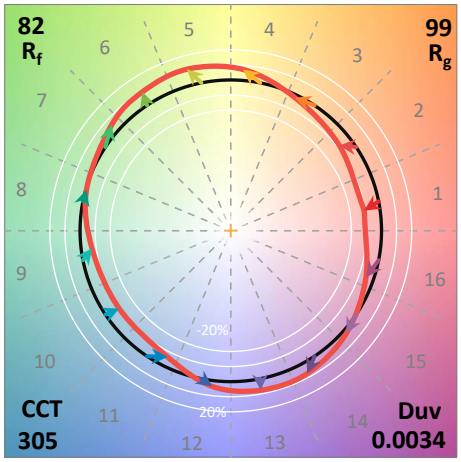
Spectral Power Distribution Comparison

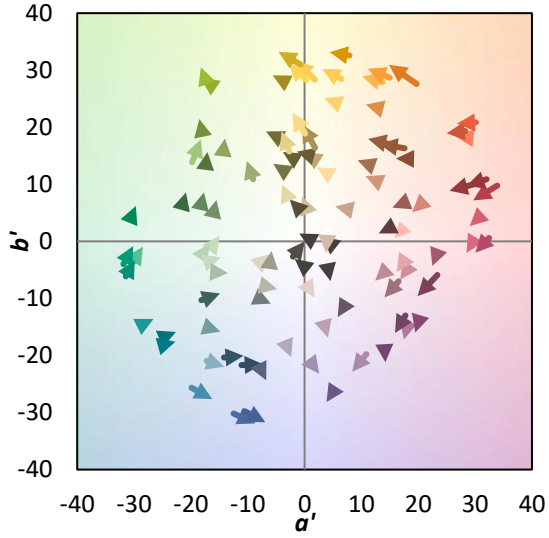


Color Vector Graphics









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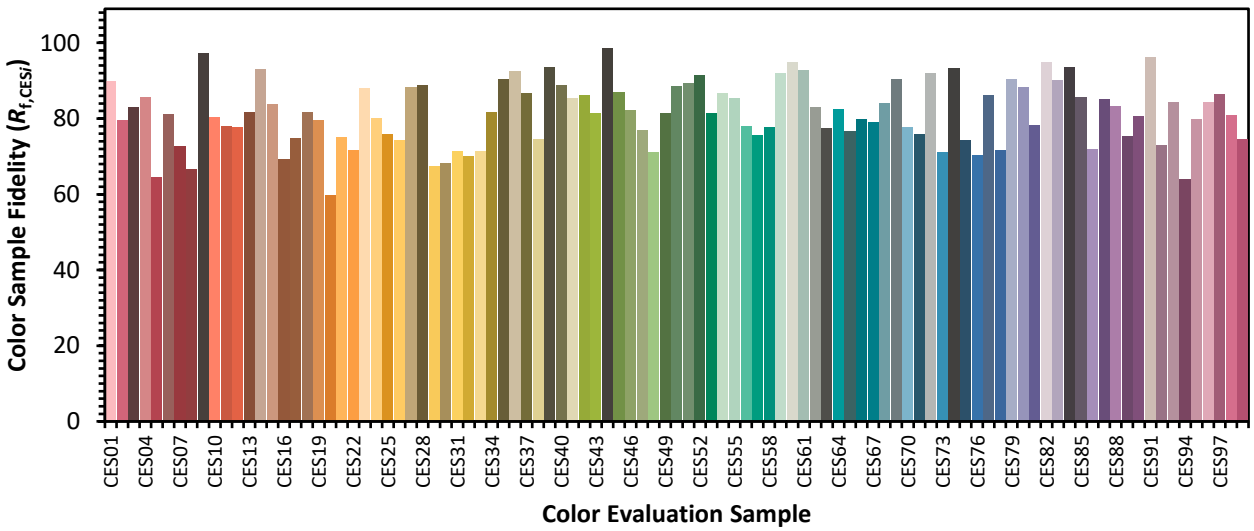
Individual Sample Fidelity Index ($R_{f,i}$)

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	



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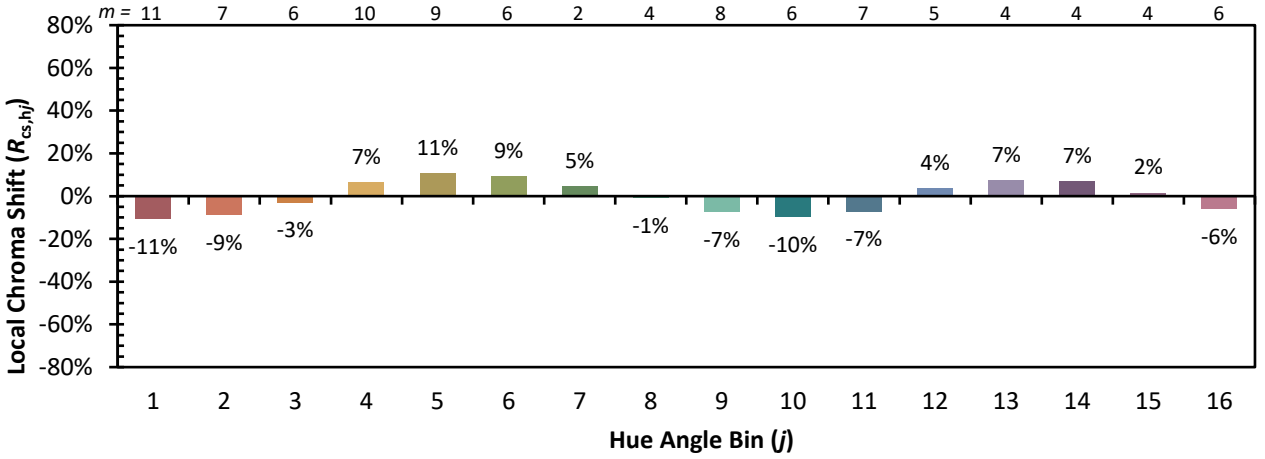
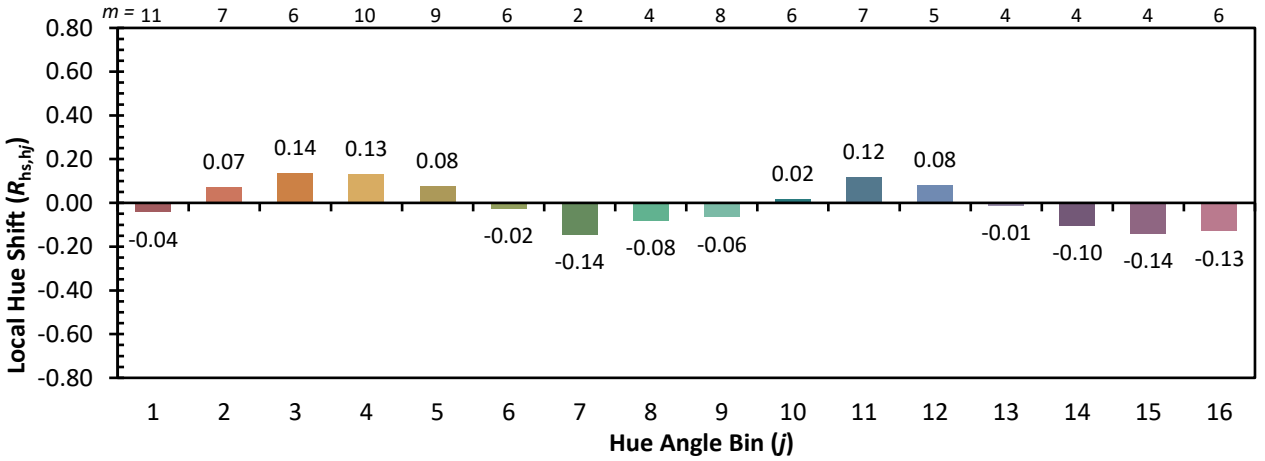
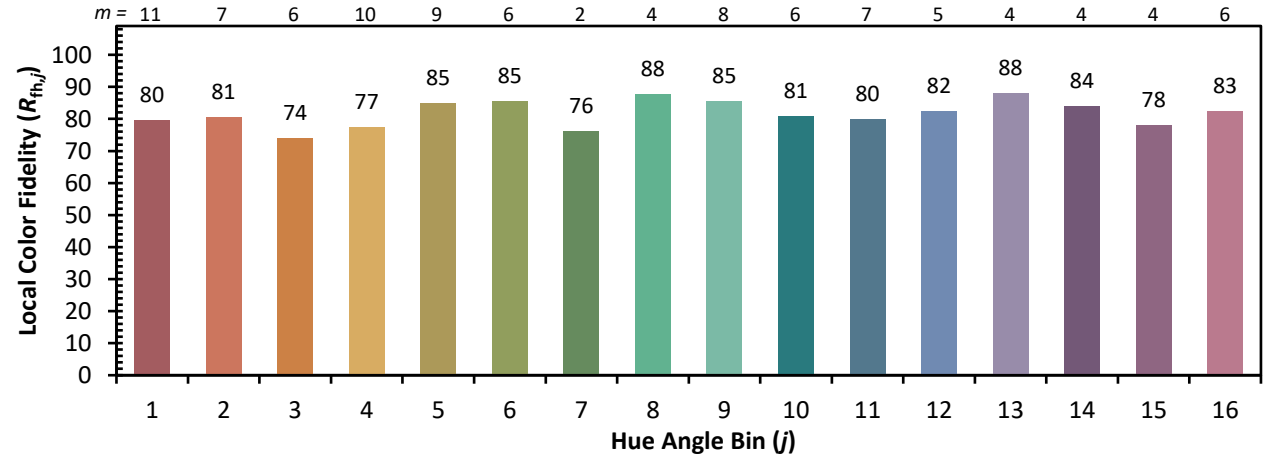
Color Rendition by Hue-Angle Bin







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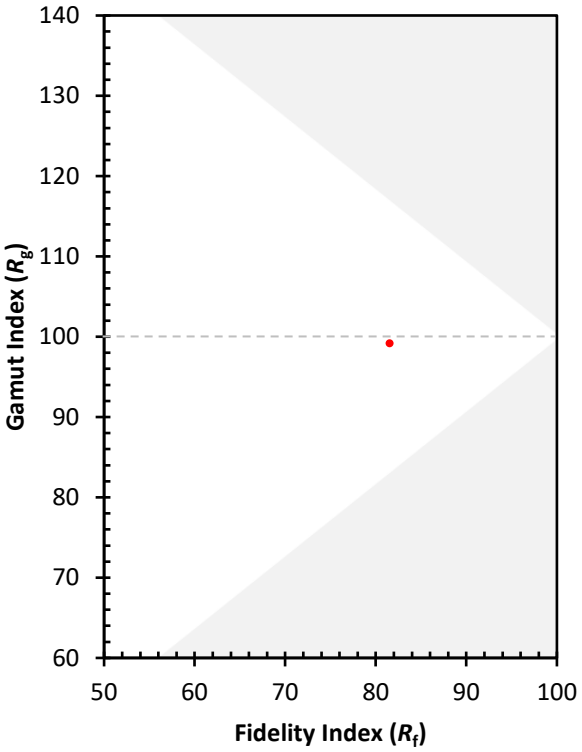
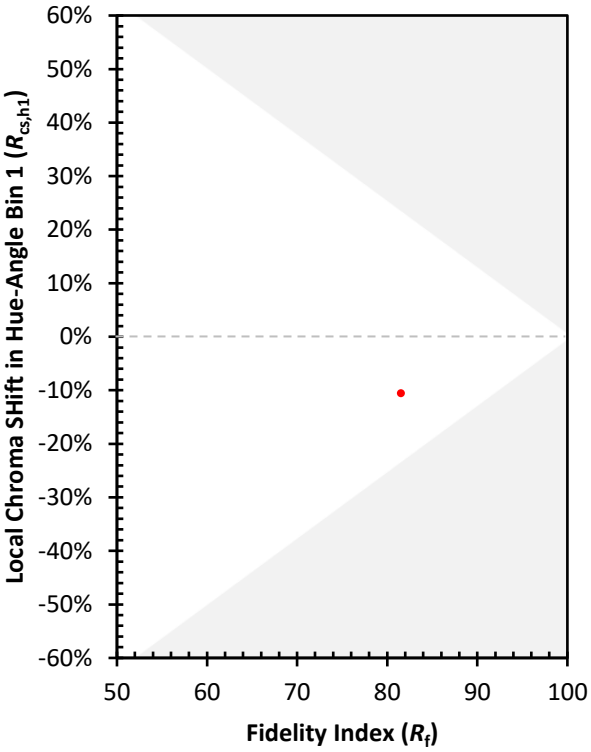
Measure Comparisons





(END OF REPORT)