

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: P634017

Luminaire Tested: GWS-SA2F-830-U-SL2-W

Issue Date: 1/10/2023

Test Information

Test Method: LM-79-2019
Report Number: P634017
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-27)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/10/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: McGRAW-EDISON
Catalog Number: GWS-SA2F-830-U-SL2-W
Description: GALLEON WALL SLIM LUMINAIRE. (2) LIGHTSQUARES WITH 16 LEDS EACH AND
TYPE II SPILL LIGHT ELIMINATOR OPTICS
Light Source: (32) 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12663.9 lumens
Efficiency: N/A
Efficacy: 101.7 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 0.5' x H: 0')
IES Classification: Type II - Short
BUG Rating: B2 - U0 - G2

Input Watts (W): 124.5
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



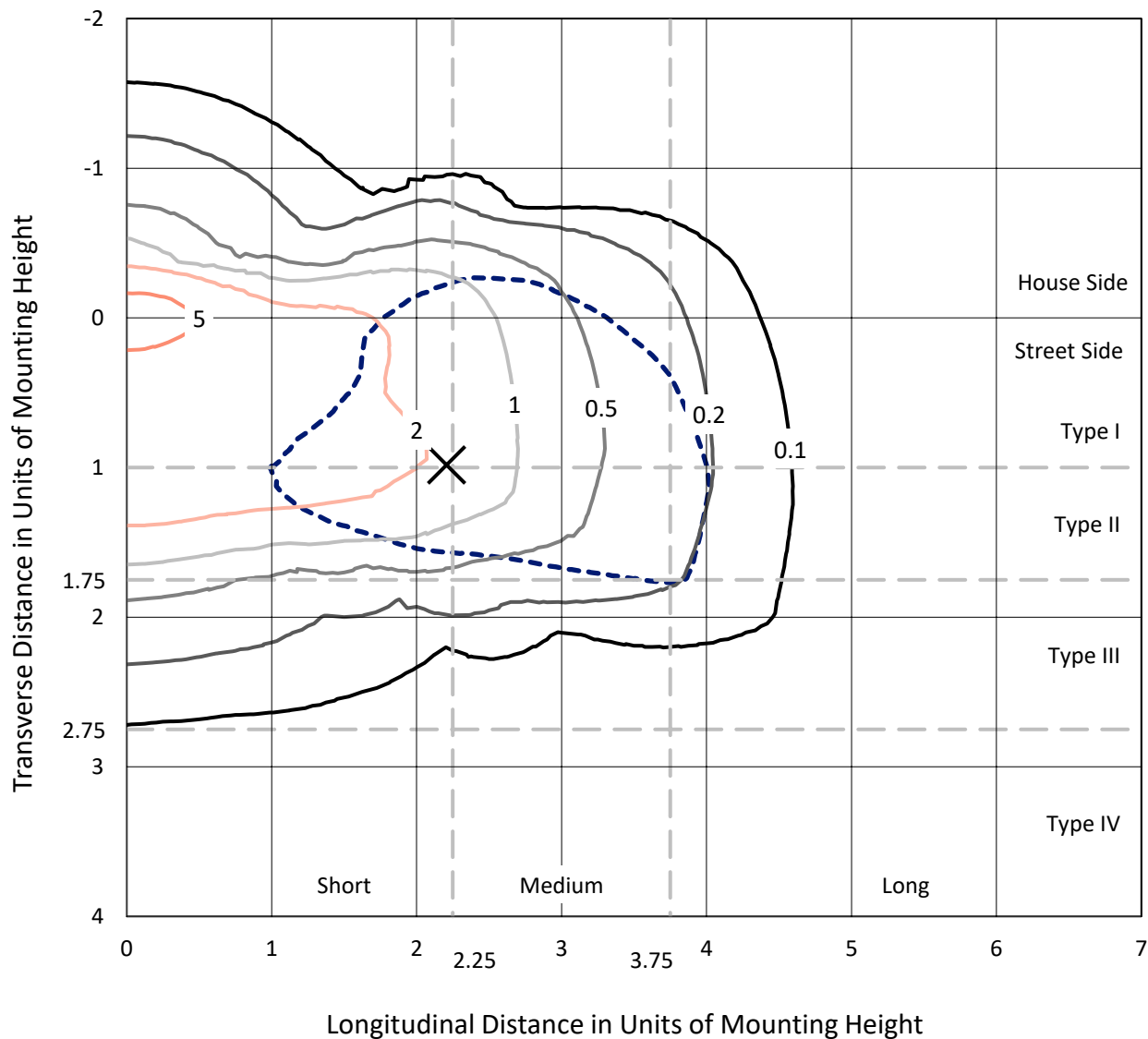
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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd

--- 1/2 Max cd

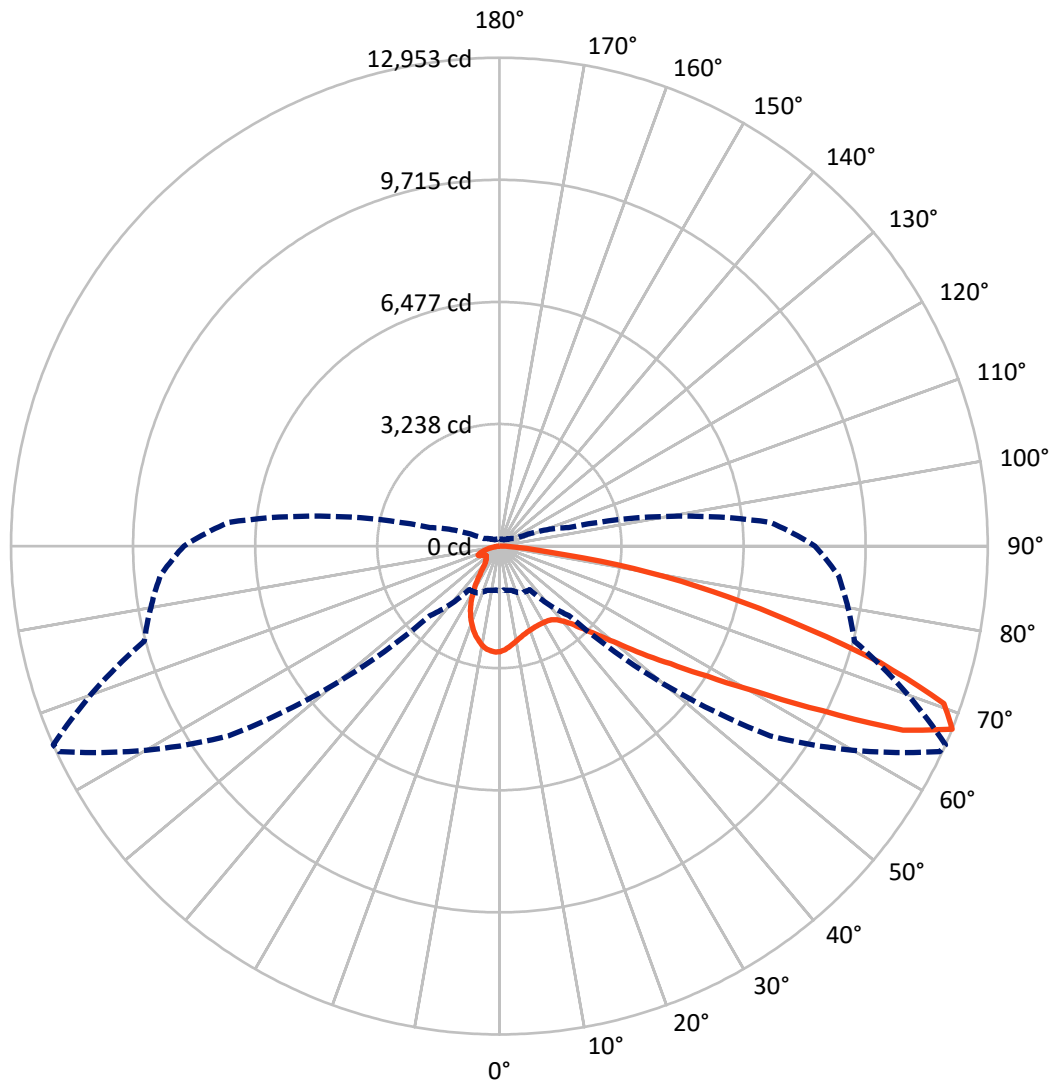


Based on 20 foot mounting height. Maximum calculated value = 7 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 66-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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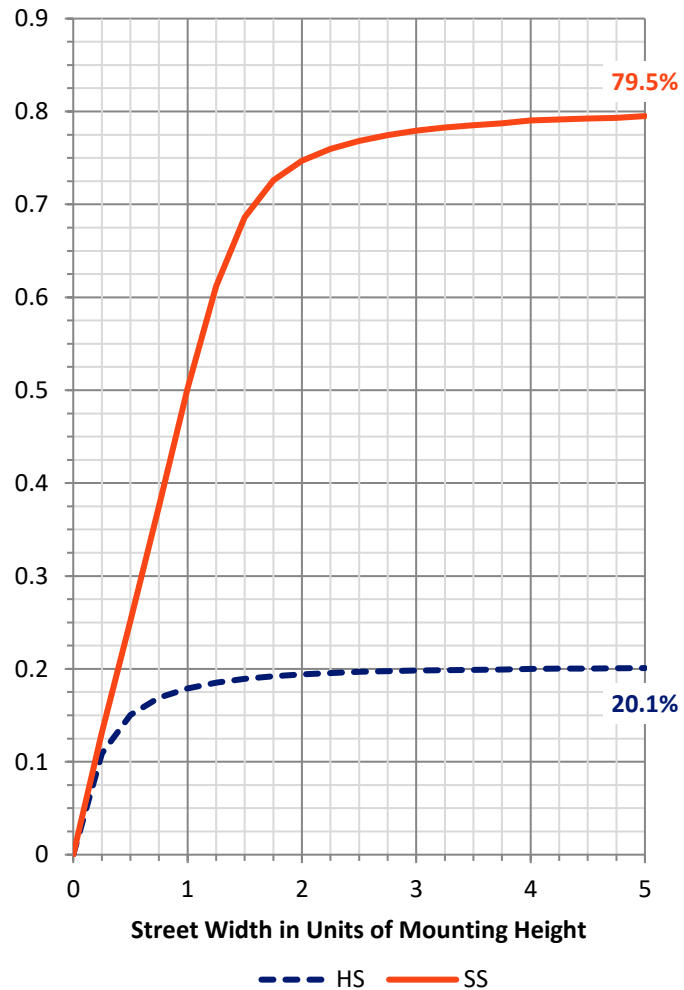
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2569.8	0.0	2569.8
	% Fixture	20.3	0.0	20.3
Street Side	Lumens	10094.1	0.0	10094.1
	% Fixture	79.7	0.0	79.7
Total	Lumens	12663.9	0.0	12663.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	245.6	1.9
10°-20°	603.6	4.8
20°-30°	829.6	6.6
30°-40°	1134.2	9.0
40°-50°	1718.7	13.6
50°-60°	2671.7	21.1
60°-70°	3252.8	25.7
70°-80°	1981.4	15.6
80°-90°	226.3	1.8
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°	12663.9	100.0
0°-180°	12663.9	100.0

Coefficient of Utilization



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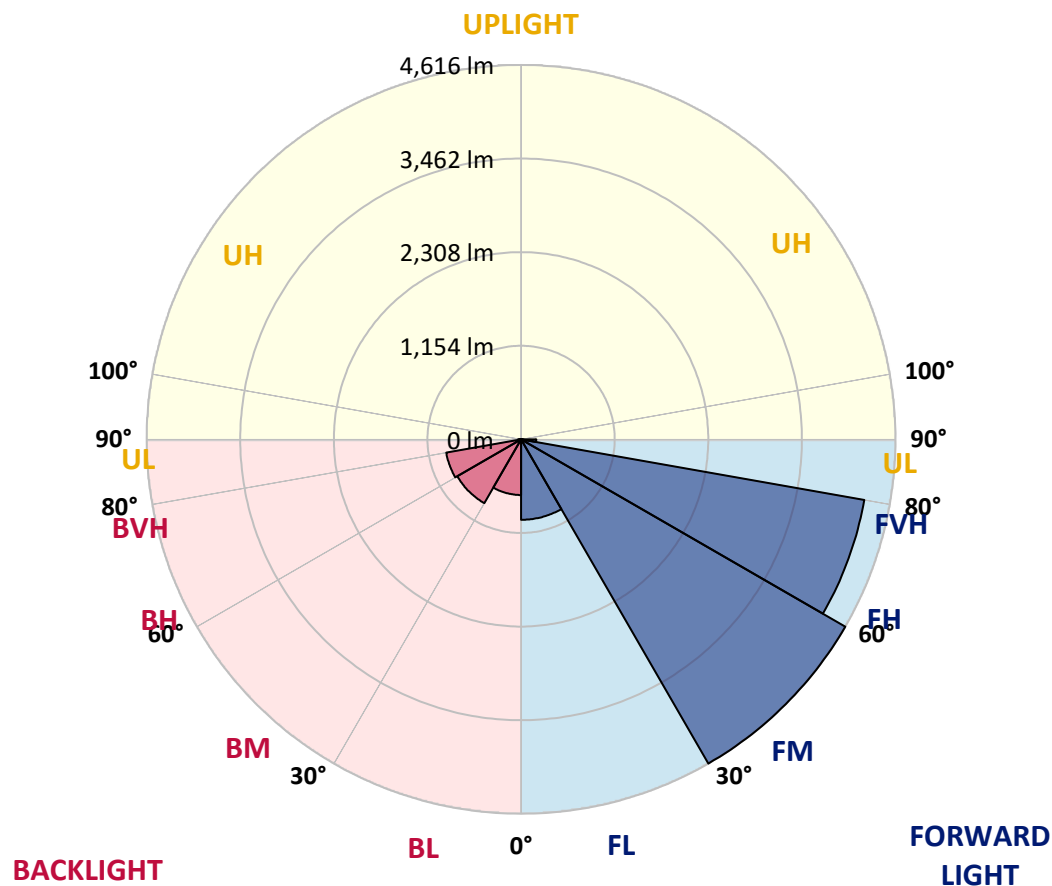
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	992.3	7.8			
FM	(30°-60°)	4616.5	36.5			
FH	(60°-80°)	4297.2	33.9			G2/5000
FVH	(80°-90°)	188.2	1.5			G2/225
BL	(0°-30°)	686.5	5.4	B2/1000		
BM	(30°-60°)	908.1	7.2	B1/1000		
BH	(60°-80°)	937.0	7.4	B2/1000		G2/1000
BVH	(80°-90°)	38.2	0.3			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type II Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	75°	85°
0°	2798.4	2798.4	2798.4	2798.4	2798.4	2798.4	2798.4	2798.4	2798.4	2798.4	2798.4
2.5°	2621.0	2630.2	2624.7	2659.8	2661.6	2706.0	2730.9	2752.2	2754.0	2781.7	2800.2
5°	2441.8	2447.3	2447.3	2480.6	2502.7	2561.9	2619.1	2680.1	2684.7	2751.2	2802.1
7.5°	2296.7	2302.3	2298.6	2342.9	2371.5	2437.1	2510.1	2603.4	2612.7	2719.8	2808.5
10°	2183.1	2181.2	2190.5	2231.1	2268.1	2346.6	2427.9	2534.1	2548.0	2683.8	2815.9
12.5°	2105.5	2107.3	2112.9	2155.4	2195.1	2272.7	2356.8	2472.2	2487.0	2642.2	2812.2
15°	2068.5	2064.8	2069.4	2108.2	2146.1	2214.5	2301.3	2420.5	2435.3	2605.3	2813.1
17.5°	2060.2	2057.4	2056.5	2084.2	2112.9	2176.6	2259.8	2380.8	2396.5	2581.3	2818.7
20°	2086.1	2082.4	2072.2	2084.2	2096.2	2149.8	2230.2	2352.1	2369.7	2565.6	2829.8
22.5°	2157.2	2150.7	2135.0	2120.3	2104.5	2136.9	2211.7	2330.9	2348.4	2555.4	2840.9
25°	2265.3	2259.8	2243.1	2209.9	2152.6	2147.0	2208.0	2321.7	2339.2	2548.0	2845.5
27.5°	2414.0	2405.7	2389.1	2341.1	2247.7	2184.9	2221.9	2320.7	2337.4	2539.7	2840.9
30°	2590.5	2585.0	2575.7	2517.5	2392.8	2265.3	2253.3	2328.1	2341.1	2535.1	2831.6
32.5°	2769.7	2764.2	2771.6	2743.9	2590.5	2398.3	2321.7	2348.4	2357.7	2534.1	2823.3
35°	2927.7	2934.2	2987.8	2992.4	2841.8	2578.5	2429.7	2395.6	2397.4	2552.6	2827.0
37.5°	3093.1	3118.0	3188.2	3248.3	3122.6	2816.8	2590.5	2484.3	2482.4	2599.7	2850.1
40°	3312.0	3323.1	3412.7	3525.4	3446.9	3143.9	2818.7	2629.3	2616.4	2695.8	2912.0
42.5°	3525.4	3552.2	3695.4	3824.8	3798.9	3512.5	3106.0	2846.4	2823.3	2865.8	3039.5
45°	3797.1	3822.9	3983.7	4150.0	4197.1	3929.2	3473.7	3155.0	3131.9	3121.7	3273.2
47.5°	4068.7	4095.5	4239.6	4479.8	4645.2	4450.2	3952.3	3562.4	3524.5	3484.8	3626.1
50°	4251.6	4283.0	4420.7	4708.9	5096.9	5100.6	4519.5	4096.4	4048.3	3985.5	4123.2
52.5°	4245.1	4265.4	4396.6	4729.2	5422.1	5848.0	5278.9	4776.3	4737.5	4600.8	4720.9
55°	3911.6	3942.1	4074.2	4489.9	5457.2	6556.6	6394.9	5578.2	5509.0	5264.1	5396.2
57.5°	3241.8	3267.7	3400.7	3913.5	5145.9	6919.7	7812.1	6600.0	6504.9	5986.6	6139.0
60°	2447.3	2415.9	2478.7	2927.7	4401.3	6928.9	9063.0	7985.8	7826.9	6758.9	6886.4
62.5°	1836.6	1805.2	1819.1	1945.6	2984.1	6369.1	9776.3	9881.6	9619.2	7631.1	7606.1
65°	1451.4	1433.8	1473.6	1560.4	1739.6	4850.2	9781.8	11931.6	11766.2	8641.8	8344.3
67.5°	1182.5	1171.5	1212.1	1372.9	1410.7	2606.2	8771.1	12888.7	12953.4	9748.5	9028.9
70°	952.5	935.9	999.6	1211.2	1311.9	1577.0	6283.2	12400.9	12505.3	10408.2	8835.8
72.5°	657.8	658.7	691.0	981.1	1266.6	1361.8	3554.1	10325.9	10552.3	9810.4	7767.8
75°	443.5	447.1	456.4	647.6	1166.8	1321.1	1893.9	7817.7	7977.5	8108.7	6420.8
77.5°	267.9	269.8	291.0	391.7	804.7	1233.3	1283.2	5666.9	5792.6	5345.4	3980.0
80°	155.2	161.7	181.1	262.4	543.2	926.6	993.1	3474.6	3616.9	2376.2	1264.8
82.5°	68.4	73.0	98.9	152.4	316.9	788.0	775.1	1372.9	1352.5	662.4	438.8
85°	12.0	14.8	21.2	48.0	116.4	415.7	601.4	606.1	570.0	251.3	182.0
87.5°	0.0	0.0	0.0	0.0	0.0	2.8	90.5	162.6	161.7	71.1	62.8
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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CATALOG NUMBER: GWS-SA2F-830-U-SL2-W

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2798.4	2798.4	2798.4	2798.4	2798.4	2798.4	2798.4	2798.4	2798.4	2798.4	2798.4
2.5°	2812.2	2787.3	2809.4	2812.2	2807.6	2803.9	2776.2	2752.2	2749.4	2723.5	2723.5
5°	2822.4	2799.3	2810.4	2789.1	2755.9	2721.7	2662.6	2621.9	2603.4	2570.2	2570.2
7.5°	2836.2	2812.2	2799.3	2746.6	2669.0	2594.2	2499.0	2419.6	2387.2	2340.1	2338.3
10°	2849.2	2818.7	2774.3	2671.8	2548.0	2428.8	2290.2	2177.5	2100.9	2044.5	2044.5
12.5°	2848.3	2808.5	2720.8	2569.2	2398.3	2225.6	2040.8	1870.8	1769.2	1681.4	1675.9
15°	2846.4	2791.9	2652.4	2450.1	2223.7	1984.4	1733.2	1511.4	1360.8	1274.9	1267.5
17.5°	2844.6	2770.6	2575.7	2314.3	2011.2	1685.1	1353.5	1113.2	987.6	934.9	936.8
20°	2844.6	2746.6	2493.5	2158.1	1766.4	1326.7	993.1	818.5	787.1	789.9	792.7
22.5°	2836.2	2717.1	2402.0	1988.1	1493.9	975.6	732.6	673.5	690.1	716.0	719.7
25°	2816.8	2668.1	2295.8	1799.7	1169.6	710.4	597.7	586.6	617.1	649.5	658.7
27.5°	2786.4	2611.7	2176.6	1578.9	861.0	570.9	525.7	524.8	548.8	572.8	581.1
30°	2754.0	2548.9	2051.0	1333.1	623.6	497.0	479.5	479.5	491.5	506.3	504.4
32.5°	2716.1	2485.2	1916.1	1077.2	508.1	455.5	449.9	447.1	449.0	454.5	454.5
35°	2683.8	2428.8	1777.5	806.5	455.5	432.4	426.8	420.4	417.6	413.9	415.7
37.5°	2671.8	2384.5	1634.3	607.9	429.6	415.7	406.5	397.3	390.8	388.9	388.0
40°	2691.2	2366.0	1491.1	500.7	411.1	398.2	388.0	376.0	370.5	370.5	370.5
42.5°	2767.0	2379.9	1345.1	452.7	398.2	383.4	368.6	357.5	355.7	357.5	358.5
45°	2905.5	2433.4	1193.6	428.7	387.1	368.6	351.1	342.8	342.8	344.6	344.6
47.5°	3153.1	2573.9	1044.0	413.9	376.0	356.6	338.1	329.8	328.9	330.7	330.7
50°	3581.8	2827.0	909.1	403.7	367.7	347.4	328.9	317.8	315.0	314.1	314.1
52.5°	4122.2	3265.8	823.2	396.3	357.5	337.2	318.7	303.9	298.4	295.6	295.6
55°	4775.4	3850.6	823.2	390.8	344.6	325.2	303.9	289.2	280.9	277.2	277.2
57.5°	5515.4	4531.5	965.4	386.2	334.4	311.3	288.2	273.5	264.2	258.7	258.7
60°	6268.4	5251.2	1317.4	379.7	325.2	293.8	270.7	256.8	244.8	238.4	237.4
62.5°	7049.0	6043.9	1781.2	383.4	318.7	277.2	252.2	236.5	226.3	219.9	219.0
65°	7764.1	6798.7	2186.8	412.0	319.7	262.4	231.0	217.1	208.8	200.5	199.6
67.5°	8371.1	7215.3	1902.2	470.2	339.1	244.8	209.7	195.9	188.5	182.9	182.0
70°	7946.1	6579.7	1079.1	506.3	365.8	226.3	185.7	176.5	169.1	165.4	164.4
72.5°	6795.0	5570.9	721.5	447.1	333.5	202.3	163.5	156.1	150.6	146.0	145.0
75°	5504.3	4417.9	551.5	366.8	259.6	164.4	140.4	134.9	129.3	124.7	123.8
77.5°	3256.6	2552.6	406.5	290.1	182.9	128.4	116.4	111.8	106.2	102.5	101.6
80°	1039.3	886.9	257.8	199.6	121.0	98.9	89.6	85.9	80.4	75.8	74.8
82.5°	396.3	342.8	136.7	101.6	80.4	67.4	60.1	56.4	52.7	48.0	47.1
85°	175.5	164.4	75.8	54.5	43.4	33.3	29.6	27.7	23.1	19.4	18.5
87.5°	61.9	61.9	32.3	15.7	9.2	4.6	2.8	0.9	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

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.

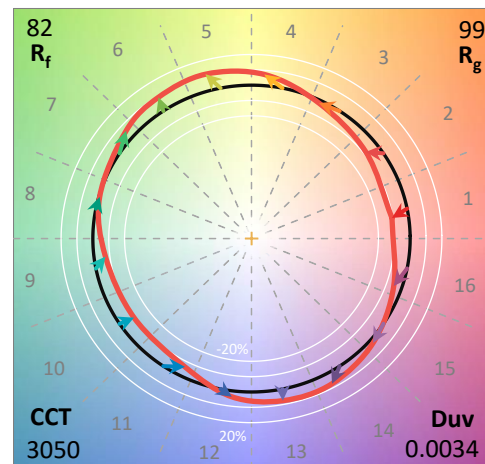
Test Information

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
 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

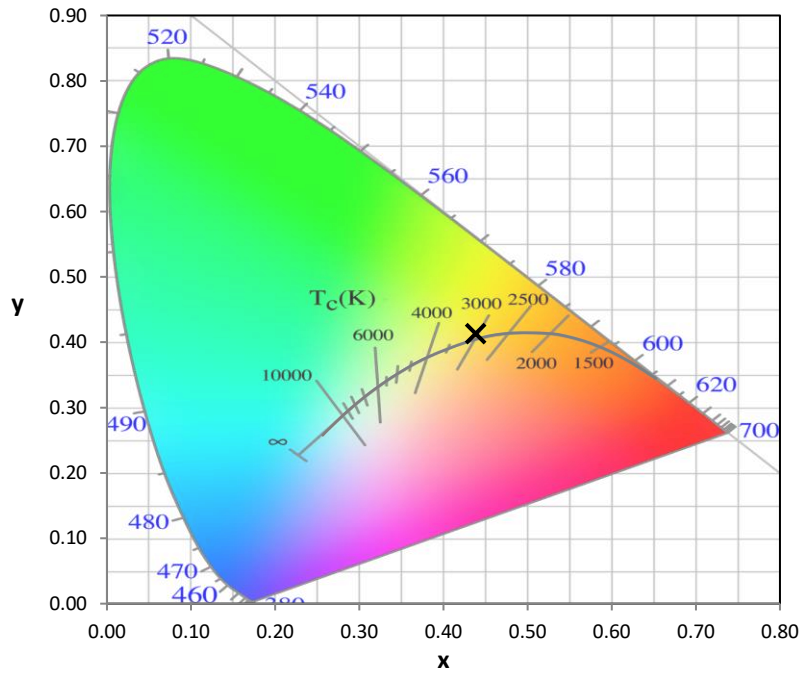
Stabilization Time: 20M
 Operation Time: 1H 20M
 Sphere Temperature (°C): 24.2

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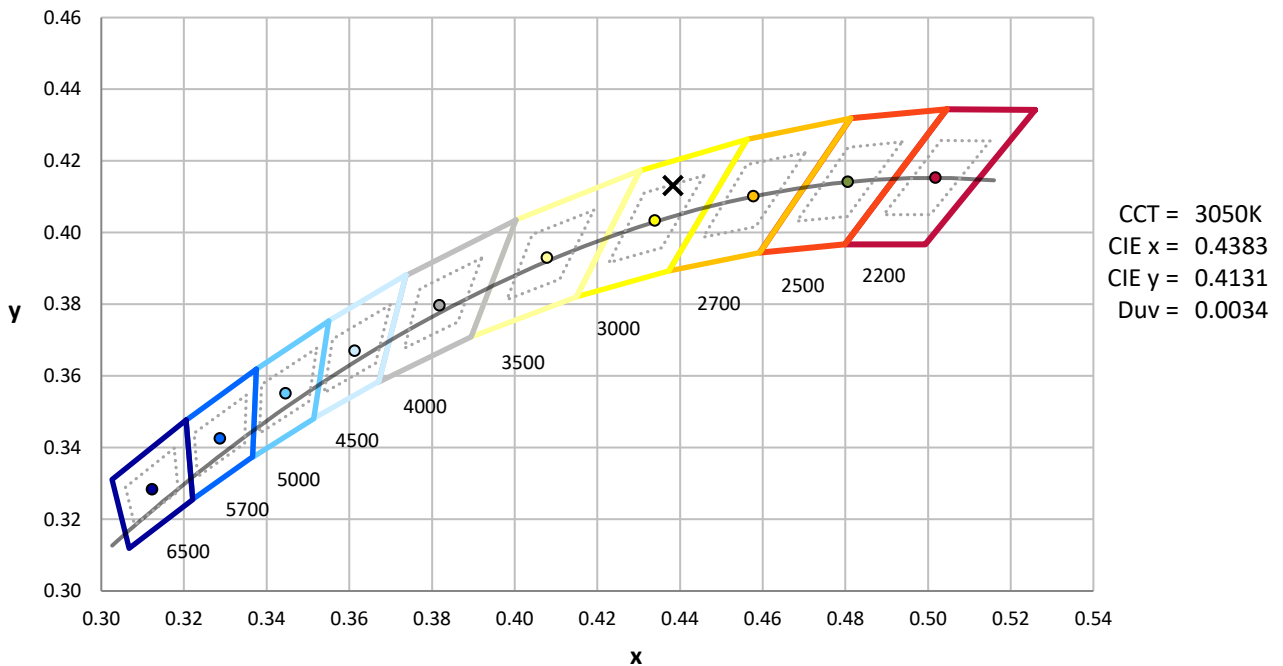
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

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CIE 1931 Chromaticity Diagram



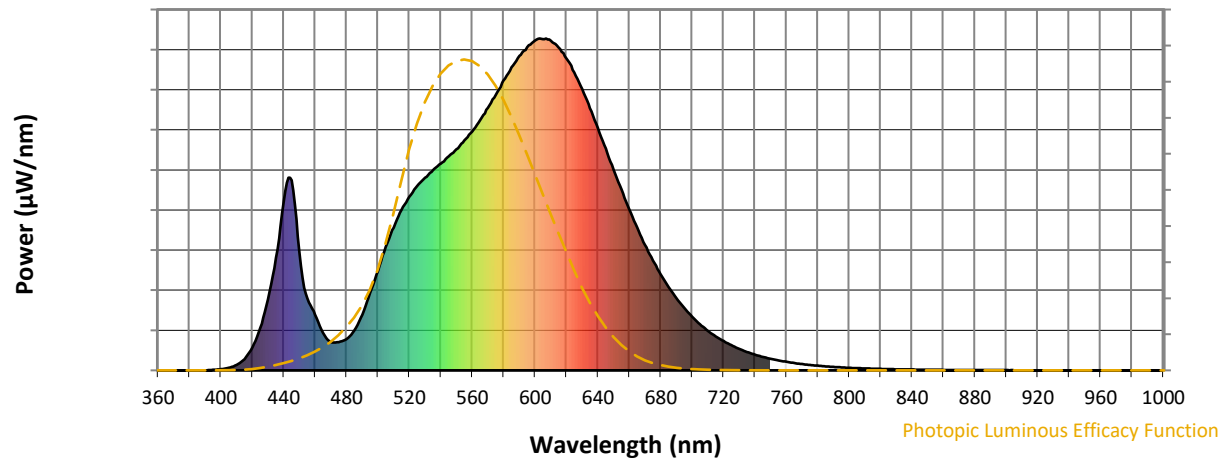
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 3000K 4-step quadrangle

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Photopic Flux vs. Wavelength

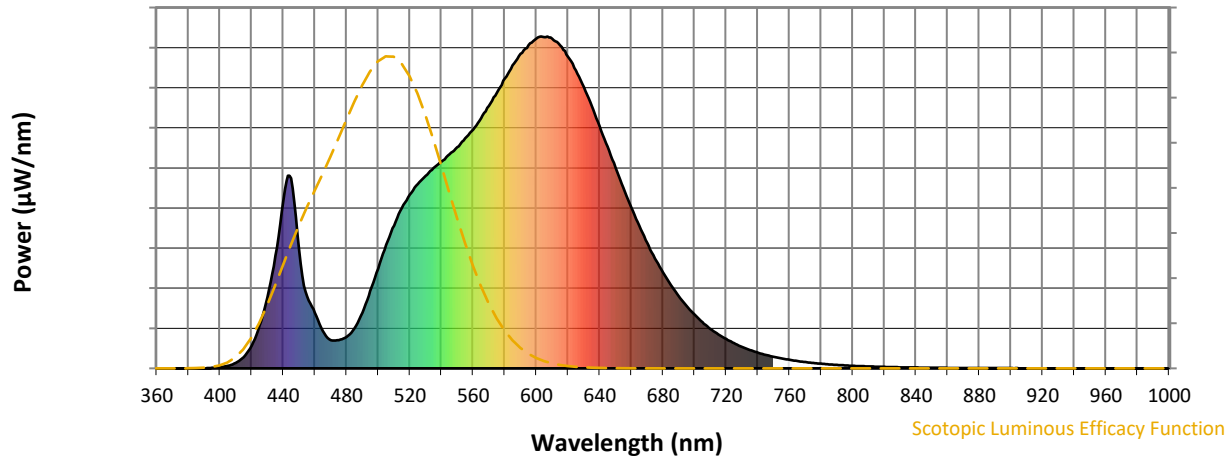


Photopic Lumens: NR

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			

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Scotopic Flux vs. Wavelength



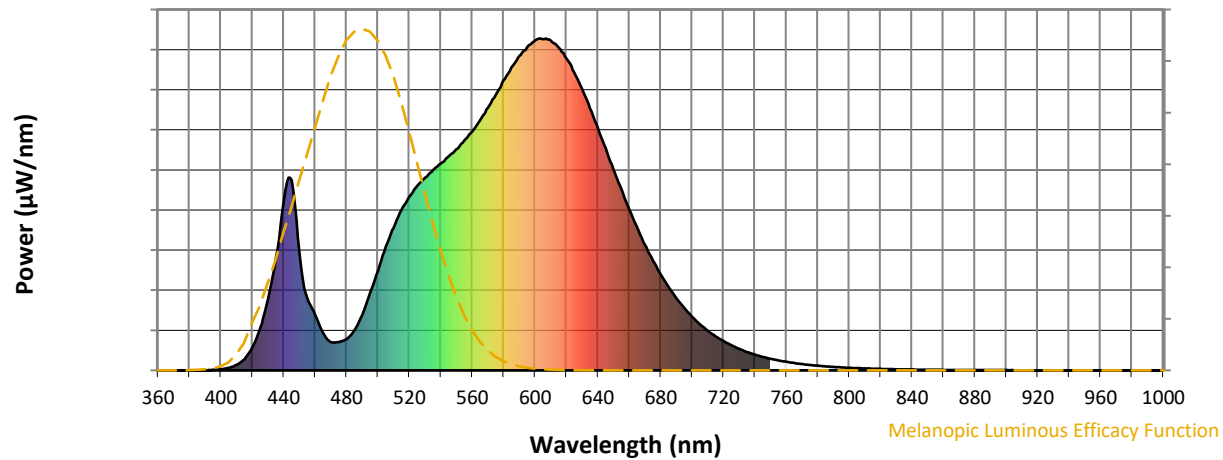
Scotopic Lumens: NR

S/P: 1.27

λ (nm)	Power W ^λ /nm	Lumens (Φ/nm)	λ (nm)	Power W ^λ /nm	Lumens (Φ/nm)	λ (nm)	Power W ^λ /nm	Lumens (Φ/nm)	λ (nm)	Power W ^λ /nm	Lumens (Φ/nm)	λ (nm)	Power W ^λ /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

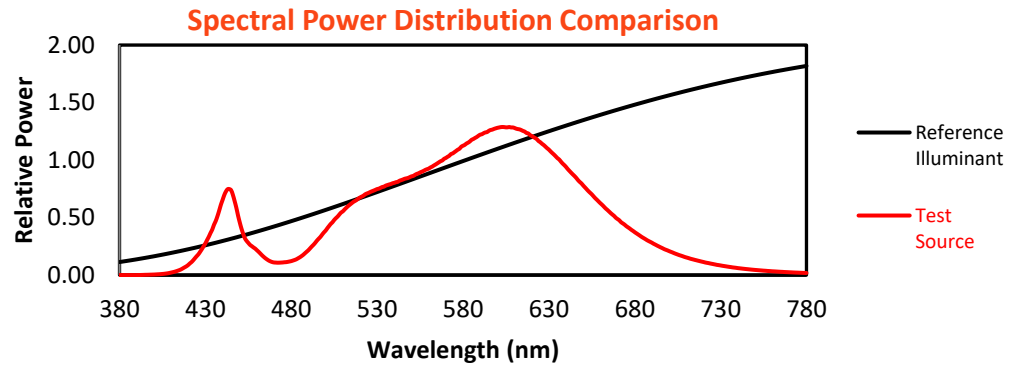
λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)
360	0	NR	490	168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

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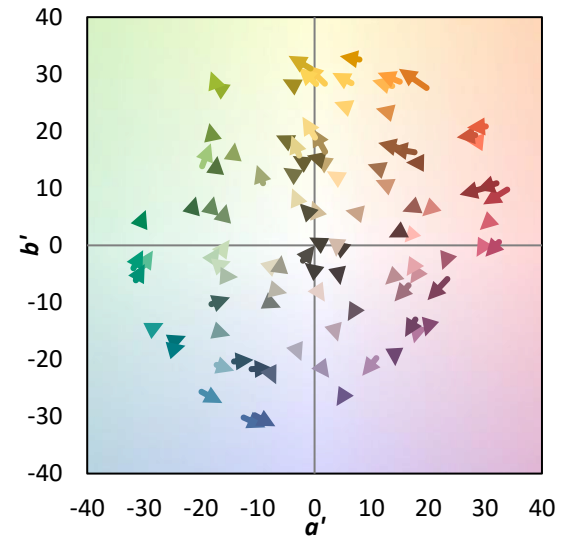
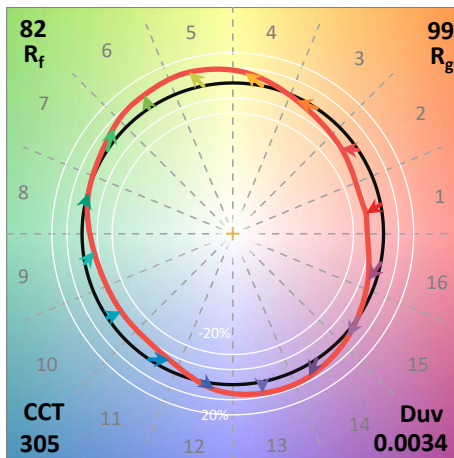
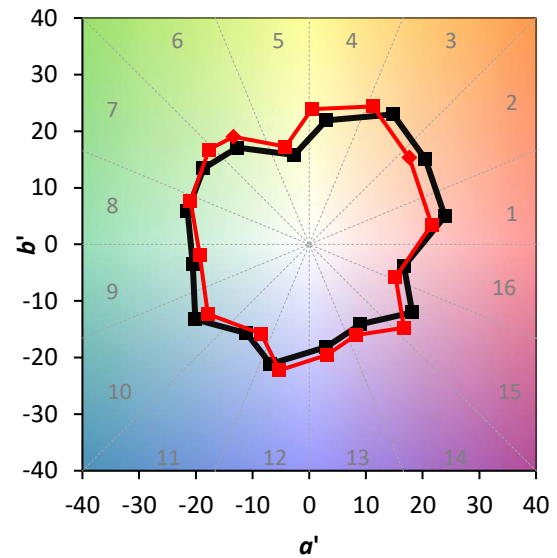
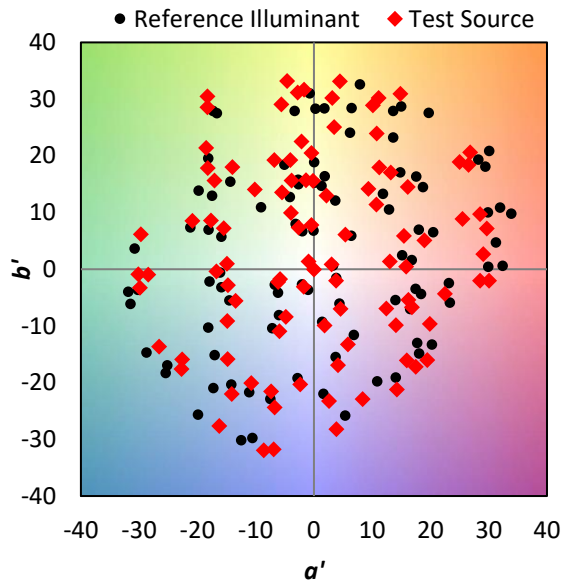
TM-30-18

Summary

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

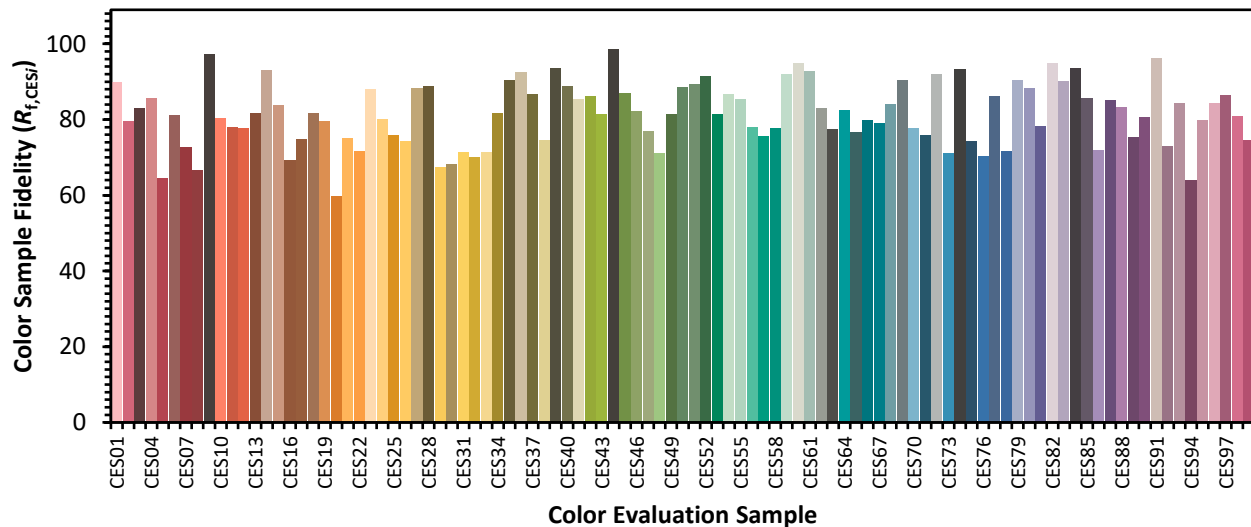


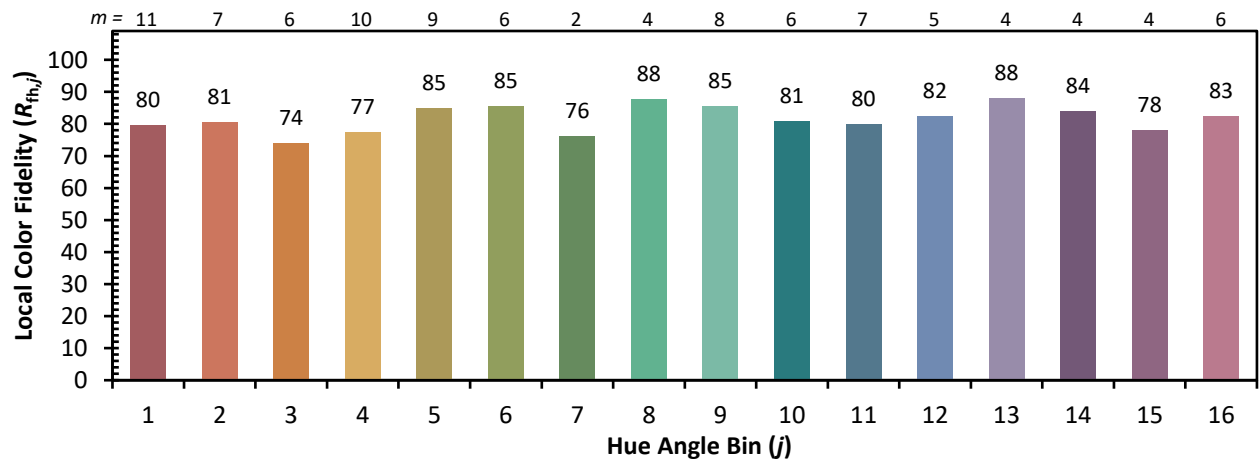
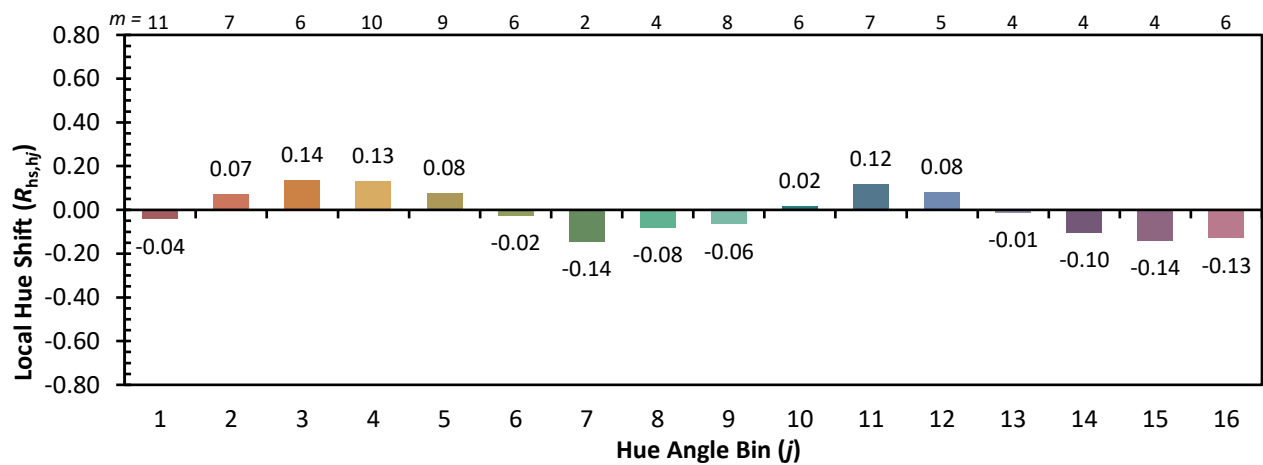
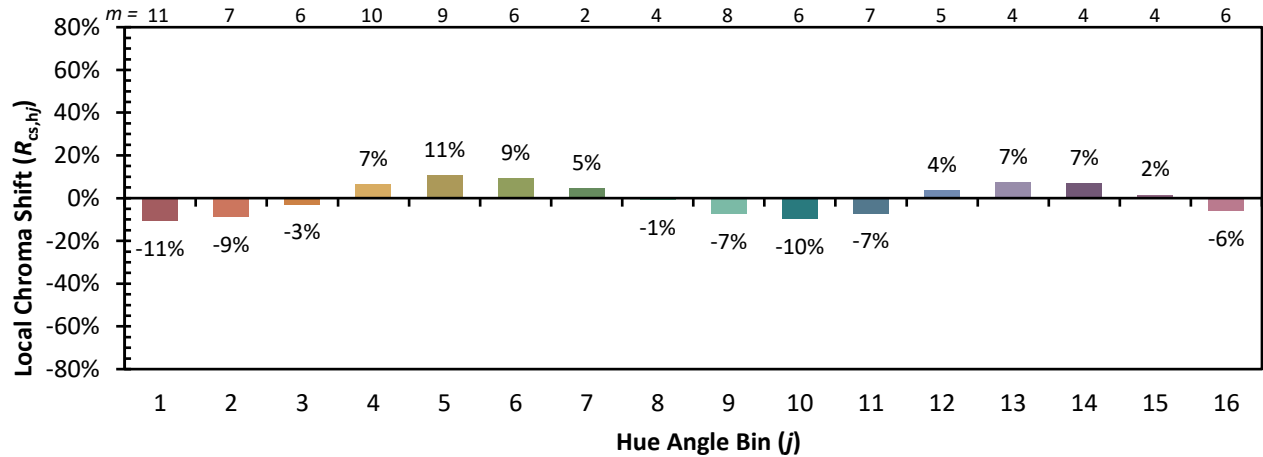
Color Vector Graphics



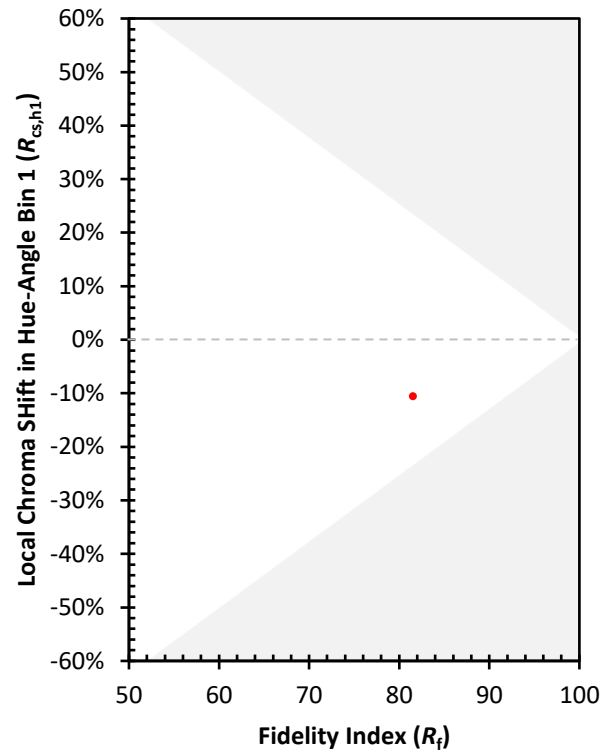
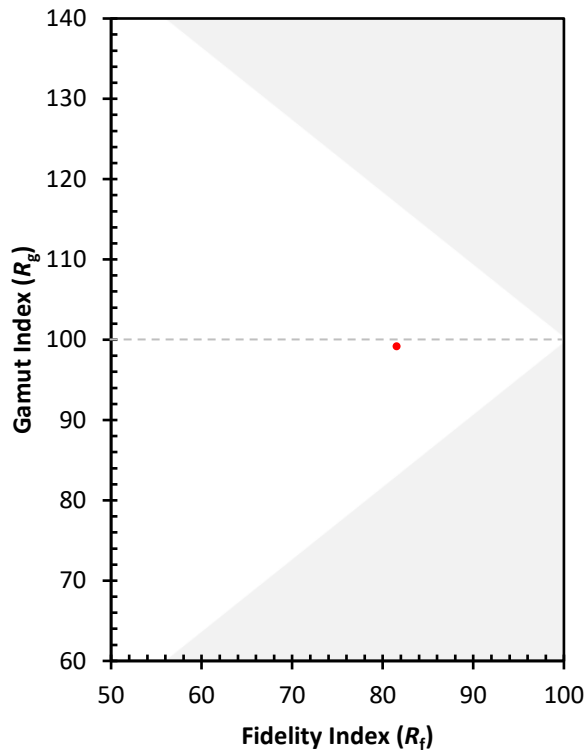
Individual Sample Fidelity Index ($R_{f,i}$)

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)