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: P636990

Luminaire Tested: GWS-SA4B-830-U-SL3-W-HSS

Issue Date: 1/10/2023

Report Generated By 670246102 / DESKTOP-G35701P

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report

Test Information

Test Method:	LM-79-2019
Report Number:	P636990
	TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-34)
Test Lab:	COOPER LIGHTING SOLUTIONS
Issue Date:	1/10/2023
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	McGRAW-EDISON
Catalog Number:	GWS-SA4B-830-U-SL3-W-HSS
Description:	GALLEON WALL SLIM LUMINAIRE. (4) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source:	(64) 3000K CCT, 80 CRI LEDS
Ballast/Driver:	-

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	9312.7 lumens
Efficiency:	N/A
Efficacy:	98.7 lumens/watt
Luminous Opening:	Rectangular (W 1' x L: 1' x H: 0')
IES Classification:	Type III - Short
BUG Rating:	B1 - U0 - G2

Input Watts (W):	94.4
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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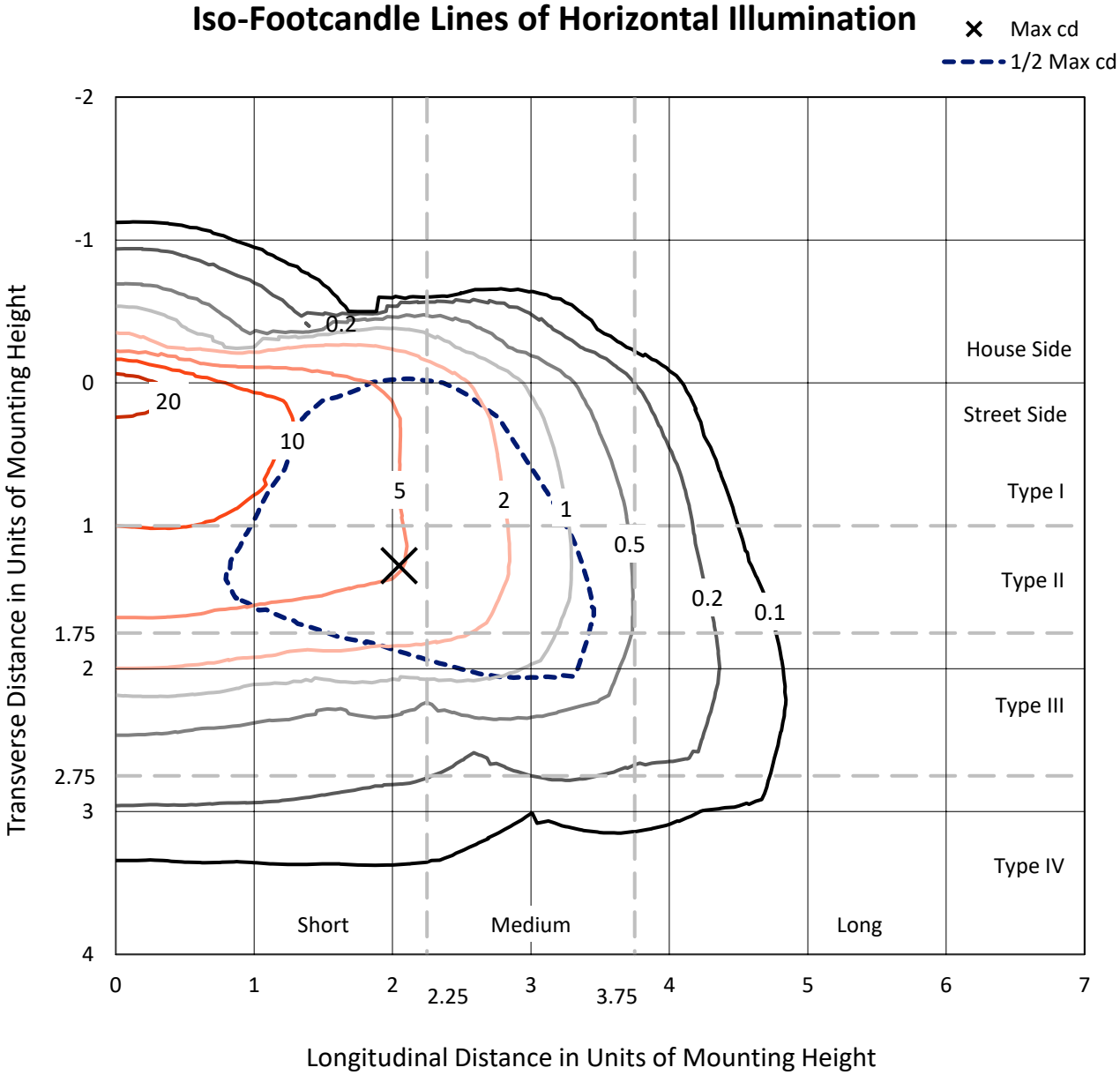
Scaled Data Report

REPORT NUMBER: P636990
CATALOG NUMBER: GWS-SA4B-830-U-SL3-W-HSS

Iso-Footcandle Lines of Horizontal Illumination



Based on 10 foot mounting height. Maximum calculated value = 26.9 fc
Type III - Short - N/A

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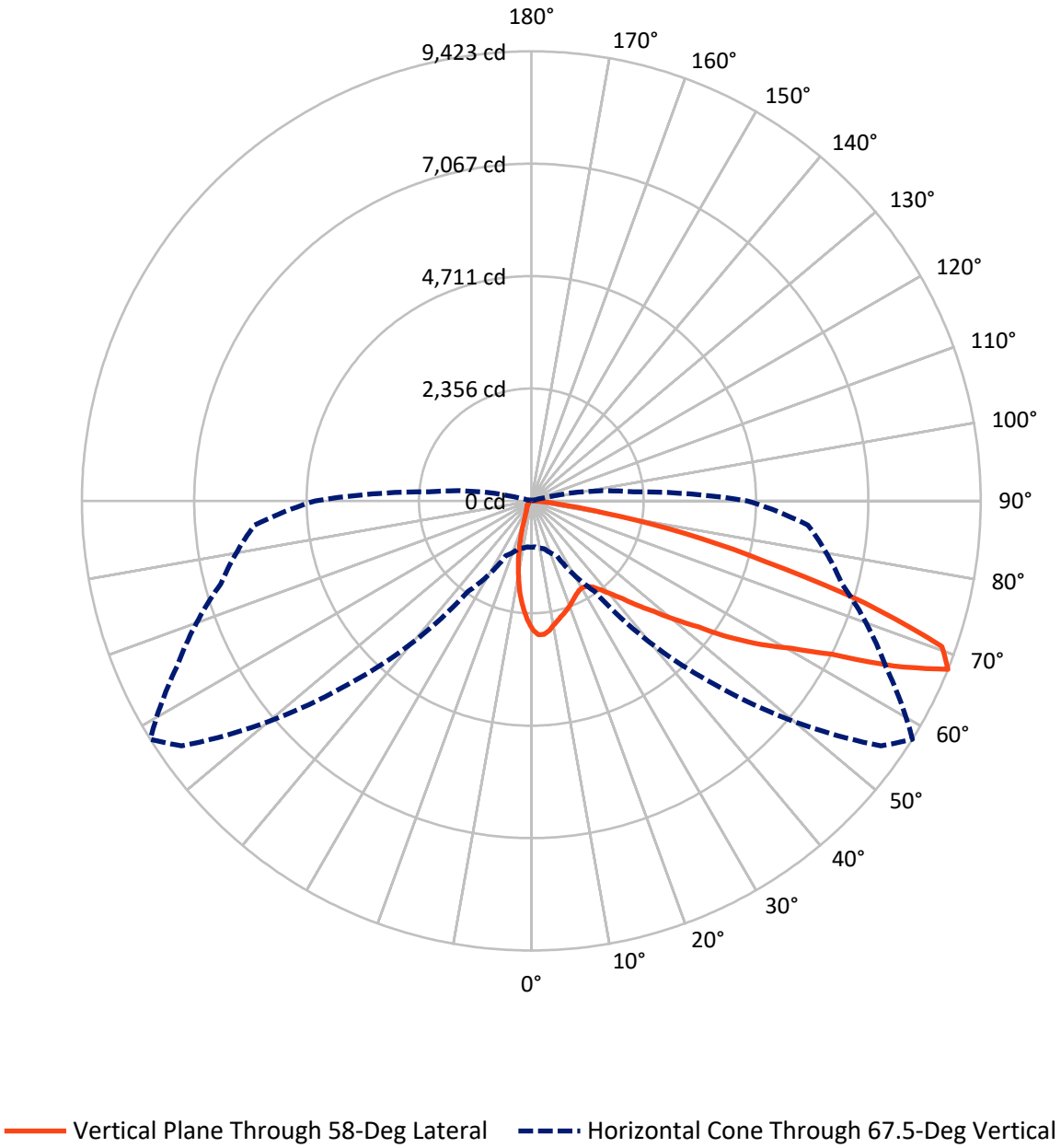
Luminous Intensity Polar Plot



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REPORT NUMBER: P636990
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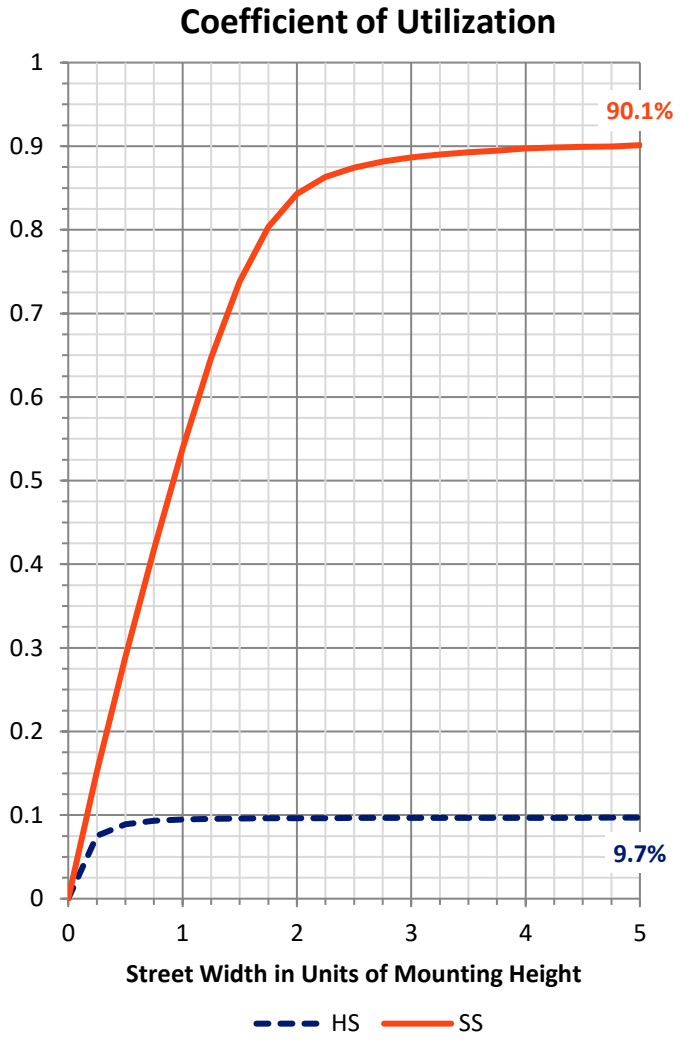
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	909.8	0.0	909.8
	% Fixture	9.8	0.0	9.8
Street Side	Lumens	8402.9	0.0	8402.9
	% Fixture	90.2	0.0	90.2
Total	Lumens	9312.7	0.0	9312.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	218.3	2.3
10°-20°	454.4	4.9
20°-30°	612.8	6.6
30°-40°	861.1	9.2
40°-50°	1329.8	14.3
50°-60°	2126.6	22.8
60°-70°	2518.0	27.0
70°-80°	1113.9	12.0
80°-90°	77.9	0.8
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°	9312.7	100.0
0°-180°	9312.7	100.0



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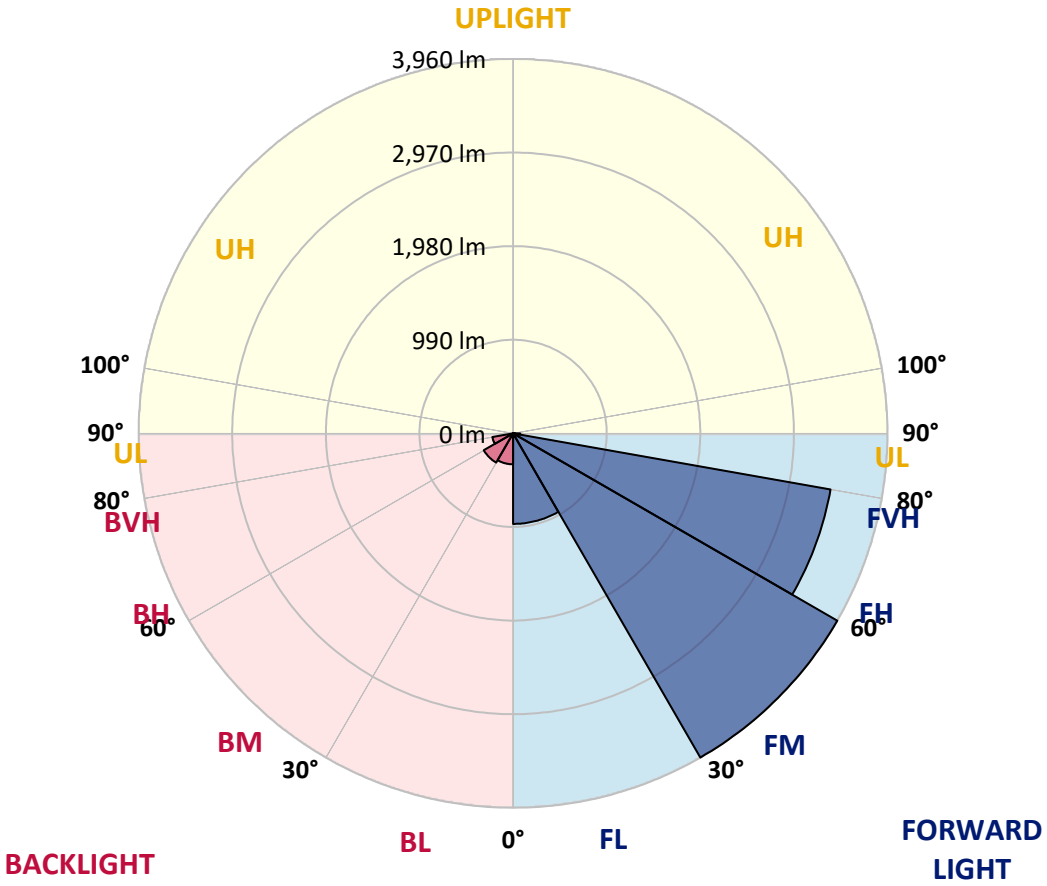
REPORT NUMBER: P636990
CATALOG NUMBER: GWS-SA4B-830-U-SL3-W-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	958.0	10.3			
FM	(30°-60°)	3960.5	42.5			
FH	(60°-80°)	3409.8	36.6			G2/5000
FVH	(80°-90°)	74.6	0.8			G1/100
BL	(0°-30°)	327.4	3.5	B1/500		
BM	(30°-60°)	357.0	3.8	B1/1000		
BH	(60°-80°)	222.1	2.4	B1/500		G1/500
BVH	(80°-90°)	3.3	0.0			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 Short



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Scaled Data Report

REPORT NUMBER: P636990
CATALOG NUMBER: GWS-SA4B-830-U-SL3-W-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	58°	65°	75°	85°
0°	2686.2	2686.2	2686.2	2686.2	2686.2	2686.2	2686.2	*2686.2*	2686.2	2686.2	2686.2
2.5°	2825.5	2830.5	2837.1	2845.3	2843.7	2836.2	2827.2	*2806.6*	2793.4	2752.2	2701.9
5°	2734.9	2734.0	2750.5	2766.2	2794.2	2809.0	2829.6	*2810.7*	2804.1	2754.6	2673.0
7.5°	2557.6	2566.7	2585.7	2610.4	2650.8	2694.5	2743.9	*2738.1*	2757.9	2725.0	2623.6
10°	2383.7	2378.8	2408.4	2445.5	2507.4	2563.4	2635.1	*2634.3*	2686.2	2682.9	2567.5
12.5°	2231.2	2230.4	2253.5	2295.5	2368.1	2446.4	2543.6	*2546.1*	2610.4	2636.8	2519.7
15°	2102.7	2104.3	2126.6	2170.2	2245.2	2340.9	2453.8	*2474.4*	2546.9	2600.5	2472.7
17.5°	2011.2	2012.0	2025.2	2063.1	2136.4	2238.7	2374.7	*2402.7*	2495.8	2573.3	2434.8
20°	1969.1	1965.8	1968.3	1987.3	2044.1	2137.3	2293.9	*2330.1*	2448.8	2554.3	2400.2
22.5°	1974.9	1969.9	1958.4	1955.9	1981.5	2052.4	2208.2	*2252.7*	2397.7	2542.8	2368.9
25°	2026.0	2015.3	1998.8	1974.1	1964.2	1999.6	2133.2	*2179.3*	2349.9	2543.6	2345.0
27.5°	2104.3	2092.8	2072.2	2039.2	2000.4	1985.6	2082.0	*2125.7*	2316.1	2562.6	2333.4
30°	2204.0	2195.0	2175.2	2135.6	2083.7	2022.7	2071.3	*2107.6*	2299.6	2601.3	2338.4
32.5°	2321.9	2315.3	2298.8	2262.6	2203.2	2110.1	2107.6	*2135.6*	2312.8	2657.4	2357.3
35°	2435.6	2438.1	2438.9	2419.2	2355.7	2242.8	2207.3	*2217.2*	2367.2	2741.4	2400.2
37.5°	2558.5	2552.7	2582.4	2596.4	2535.4	2415.0	2361.5	*2362.3*	2471.1	2865.9	2481.0
40°	2651.6	2653.2	2717.5	2775.2	2749.7	2633.5	2556.8	*2556.0*	2631.0	3036.5	2611.2
42.5°	2739.0	2749.7	2844.5	2943.4	2978.8	2875.8	2820.6	*2800.0*	2855.2	3267.3	2806.6
45°	2832.1	2847.8	2980.5	3121.4	3214.6	3153.6	3109.9	*3118.1*	3124.7	3536.0	3069.5
47.5°	2940.9	2950.8	3114.8	3313.5	3487.4	3471.7	3474.2	*3464.3*	3461.0	3874.8	3417.3
50°	3072.8	3095.9	3284.6	3522.0	3759.4	3863.2	3897.9	*3902.0*	3848.4	4244.0	3777.5
52.5°	3353.0	3381.1	3542.6	3750.3	4056.1	4274.5	4415.5	*4387.5*	4305.0	4601.8	4172.3
55°	3683.6	3705.0	3860.8	4075.9	4418.8	4725.4	5060.1	*5048.5*	4846.6	4978.4	4497.1
57.5°	3714.9	3738.8	3980.3	4310.0	4884.5	5282.6	5634.5	*5671.6*	5375.7	5245.5	4787.2
60°	3362.9	3411.6	3741.3	4184.7	5062.5	6031.8	6264.3	*6271.7*	5764.0	5516.7	5141.7
62.5°	2695.3	2718.4	3050.5	3629.2	4788.0	6468.7	7226.2	*7069.6*	6262.6	5936.2	5703.0
65°	1412.8	1506.7	1796.0	2436.5	3883.0	6316.2	8383.4	*8340.6*	7159.4	6537.1	6139.8
67.5°	*969.3*	*968.5*	*1036.9*	*1270.2*	*2315.3*	*5438.4*	*8951.3*	*9422.8*	*8196.3*	*6743.2*	*5823.3*
70°	737.7	740.2	801.2	952.8	1199.3	3620.1	8328.2	*9134.3*	8389.2	6122.5	4709.7
72.5°	489.6	494.5	595.9	769.8	957.8	1774.6	6472.0	*7308.6*	7058.8	4917.5	3315.1
75°	292.6	296.7	369.3	559.7	851.4	993.2	4112.2	*5052.6*	4858.9	3389.3	1777.1
77.5°	120.3	123.6	189.6	348.7	623.1	771.5	2274.1	*3306.1*	2910.4	1347.6	485.5
80°	50.3	51.9	91.5	244.0	449.2	483.8	1053.4	*1553.7*	1192.7	290.1	148.4
82.5°	18.1	19.0	33.8	134.4	279.4	364.3	531.6	*614.1*	336.3	94.8	80.0
85°	0.8	0.8	8.2	45.3	106.3	103.0	304.1	*294.3*	111.3	39.6	47.8
87.5°	0.0	0.0	0.8	0.8	1.6	4.1	28.8	*51.1*	23.9	9.9	20.6
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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REPORT NUMBER: P636990
CATALOG NUMBER: GWS-SA4B-830-U-SL3-W-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2686.2	2686.2	2686.2	2686.2	2686.2	2686.2	2686.2	2686.2	2686.2	2686.2	2686.2
2.5°	2668.9	2625.2	2577.4	2532.9	2462.0	2420.0	2368.1	2345.0	2312.0	2303.8	2308.7
5°	2614.5	2539.5	2424.9	2321.1	2186.7	2078.7	1969.9	1923.8	1864.4	1824.9	1808.4
7.5°	2537.9	2439.8	2260.9	2072.2	1887.5	1690.5	1540.5	1441.6	1351.8	1302.3	1292.4
10°	2460.4	2332.6	2076.3	1805.9	1519.9	1284.2	1081.4	931.4	809.4	754.2	711.3
12.5°	2380.4	2221.3	1888.3	1535.6	1203.4	881.9	631.4	485.5	398.1	363.5	369.3
15°	2307.1	2114.2	1702.1	1265.2	847.3	532.5	348.7	294.3	273.6	267.1	266.2
17.5°	2237.0	2012.8	1516.6	1002.3	558.8	326.4	267.1	253.9	248.1	244.8	244.8
20°	2173.5	1915.5	1335.3	755.0	361.0	258.8	241.5	234.9	230.0	227.5	227.5
22.5°	2114.2	1821.6	1158.1	534.1	266.2	232.4	221.7	215.1	209.4	206.1	206.1
25°	2060.6	1736.7	989.1	367.6	229.1	212.7	201.1	193.7	183.8	178.0	178.0
27.5°	2021.9	1660.9	826.7	267.9	206.9	191.2	178.0	168.1	157.4	150.8	149.2
30°	1998.8	1596.6	662.7	220.1	186.3	170.6	155.8	143.4	131.1	124.5	123.6
32.5°	1985.6	1537.2	512.7	192.0	169.0	150.8	134.4	121.2	108.8	101.4	100.6
35°	1990.6	1491.1	384.1	173.1	152.5	133.5	115.4	102.2	91.5	84.9	83.2
37.5°	2033.4	1470.5	288.5	158.3	138.5	118.7	99.7	87.4	77.5	72.5	71.7
40°	2116.7	1474.6	226.7	146.7	126.9	103.9	85.7	74.2	66.8	62.6	61.8
42.5°	2246.1	1509.2	187.1	136.8	114.6	90.7	74.2	65.1	57.7	53.6	52.8
45°	2438.9	1580.9	163.2	125.3	101.4	78.3	64.3	56.0	49.5	44.5	43.7
47.5°	2718.4	1705.4	147.5	114.6	89.8	67.6	55.2	47.0	41.2	37.1	36.3
50°	3015.9	1854.6	134.4	103.9	80.0	58.5	47.0	38.7	33.8	29.7	28.8
52.5°	3333.3	2015.3	124.5	94.0	70.9	50.3	39.6	32.1	27.2	23.1	22.3
55°	3638.2	2176.8	112.9	87.4	60.2	42.9	33.0	26.4	21.4	18.1	18.1
57.5°	3935.0	2325.2	100.6	76.7	49.5	36.3	27.2	21.4	17.3	14.8	14.0
60°	4289.4	2530.4	86.5	65.1	41.2	30.5	22.3	17.3	14.0	11.5	11.5
62.5°	4816.1	2743.9	74.2	54.4	34.6	25.6	18.1	14.0	11.5	9.9	9.1
65°	4988.3	2628.5	62.6	44.5	28.0	20.6	14.8	12.4	9.9	9.1	8.2
67.5°	*4528.4*	*2154.6*	*51.9*	*36.3*	*23.1*	*17.3*	*13.2*	*10.7*	*9.1*	*8.2*	*7.4*
70°	3533.5	1529.0	40.4	27.2	19.0	14.0	11.5	9.9	8.2	7.4	7.4
72.5°	2403.5	904.2	32.1	20.6	15.7	12.4	9.9	9.1	8.2	7.4	6.6
75°	1183.6	321.5	24.7	15.7	12.4	10.7	9.1	8.2	7.4	6.6	6.6
77.5°	319.0	89.0	19.0	12.4	9.9	8.2	8.2	8.2	7.4	5.8	5.8
80°	108.0	37.1	14.0	9.1	8.2	6.6	5.8	7.4	6.6	5.8	4.9
82.5°	59.3	18.1	9.9	7.4	5.8	4.9	4.9	4.9	4.9	4.1	4.1
85°	37.9	9.9	6.6	5.8	5.8	4.1	3.3	3.3	2.5	2.5	2.5
87.5°	17.3	5.8	5.8	4.9	4.9	4.1	2.5	1.6	0.8	0.8	0.8
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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LM-79-2019: Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

Report Prepared for

Cooper Lighting Solutions

MCGRAW EDISON

Report Number: SP1-2408-195-9

Test Date: 08/07/2024

Luminaire Tested: GALN-SB1A-830-U-5WQ

Data in this report applies to families of products including GALN-SB1A-830-U-5WQ.

Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

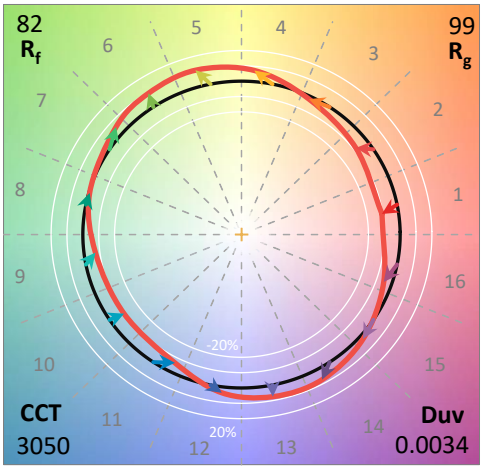
Test Information

Test Method:	LM-79-2019
Report Number:	SP1-2408-195-9
Test Lab:	COOPER LIGHTING SOLUTIONS
Photometer:	SP1 - 76IN SPHERE
Measurement Geometry:	4π
Issue Date:	08/07/2024
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	MCGRAW EDISON
Catalog Number:	**GALN-SB1A-830-U-5WQ**
Description:	GALLEON AREA AND ROADWAY LUMINAIRE. (1) 80 CRI, 3000K, 350MA HIGH DENSITY LIGHTSQUARE WITH 26 LEDS AND TYPE V WIDE OPTICS

Spectral Parameters

CCT (K):	3050	CRI (Ra):	81.0		
CIE u':	0.2476	R1:	79.6	R9:	7.1
CIE v':	0.5251	R2:	85.6	R10:	67.0
Duv:	0.0034	R3:	92.0	R11:	82.7
CIE x:	0.4383	R4:	82.6	R12:	63.2
CIE y:	0.4131	R5:	78.9	R13:	80.3
CIE z:	0.1487	R6:	81.7	R14:	95.0
Peak Wavelength (nm):	603	R7:	85.2	R15:	71.7
Dominant Wavelength (nm):	581	R8:	62.0		
Purity:	55.55201				

Rf:	81.5
Rg:	99.2



Test Conditions

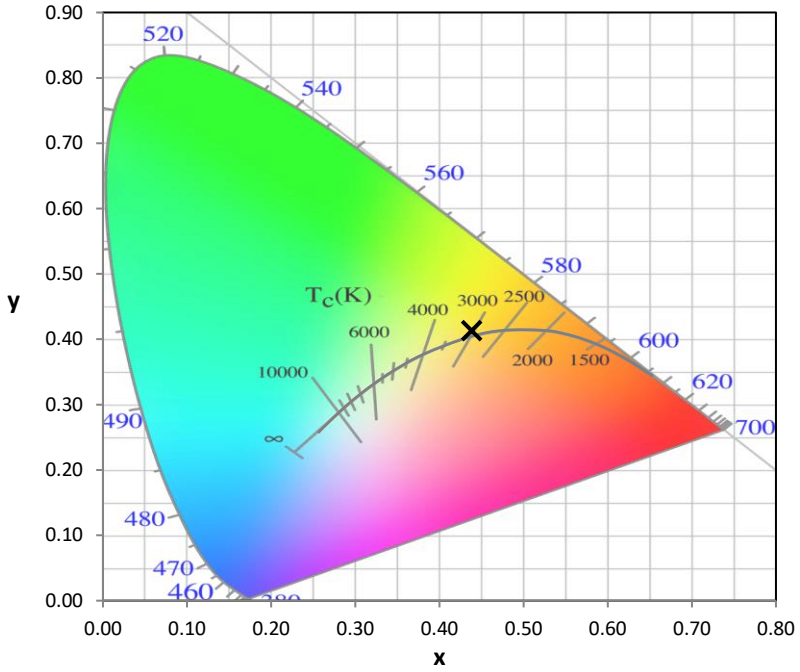
Stabilization Time:	20M
Operation Time:	1H 20M
Sphere Temperature (°C):	24.2

REPORT NUMBER: SP1-2408-195-9

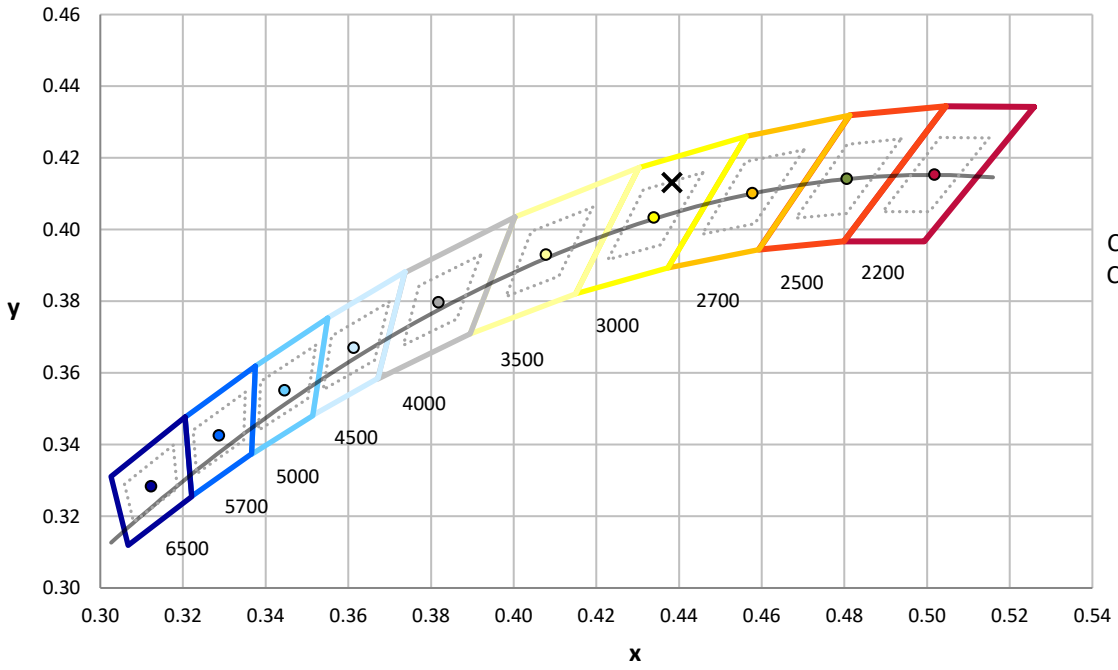
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

REPORT NUMBER: SP1-2408-195-9

CIE 1931 Chromaticity Diagram



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

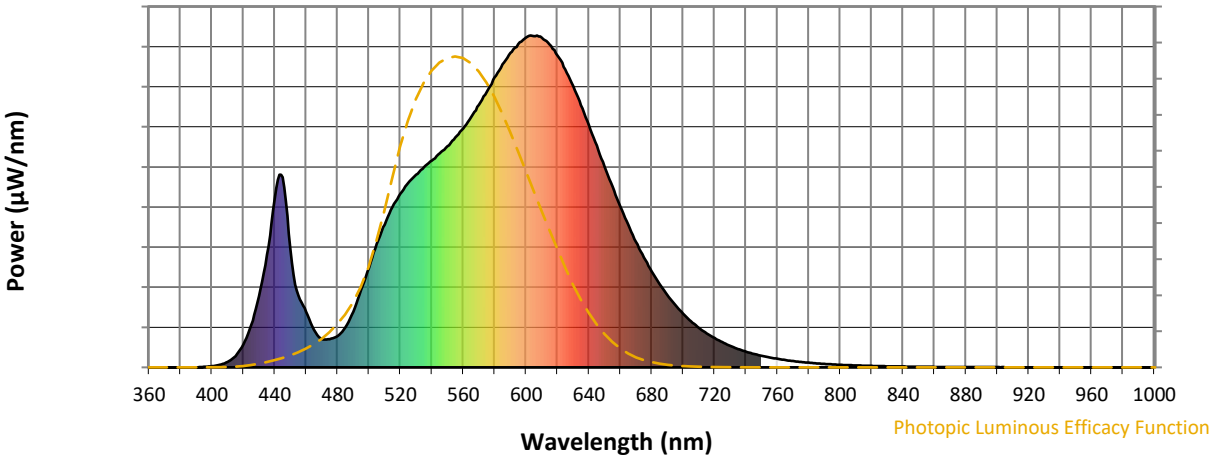


CCT = 3050K
CIE x = 0.4383
CIE y = 0.4131
Duv = 0.0034

Point lies inside the ANSI 3000K 4-step quadrangle

REPORT NUMBER: SP1-2408-195-9

Photopic Flux vs. Wavelength



Photopic Lumens: NR

λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)
360	0	NR	490	168	NR	620	940	NR	750	35	NR	880	1	NR
365	0	NR	495	233	NR	625	897	NR	755	30	NR	885	1	NR
370	0	NR	500	300	NR	630	847	NR	760	26	NR	890	1	NR
375	0	NR	505	372	NR	635	790	NR	765	22	NR	895	1	NR
380	0	NR	510	430	NR	640	730	NR	770	19	NR	900	1	NR
385	0	NR	515	483	NR	645	668	NR	775	16	NR	905	1	NR
390	0	NR	520	524	NR	650	605	NR	780	14	NR	910	0	NR
395	2	NR	525	555	NR	655	545	NR	785	12	NR	915	0	NR
400	4	NR	530	581	NR	660	485	NR	790	10	NR	920	0	NR
405	7	NR	535	604	NR	665	430	NR	795	9	NR	925	0	NR
410	17	NR	540	623	NR	670	378	NR	800	8	NR	930	0	NR
415	34	NR	545	645	NR	675	331	NR	805	7	NR	935	0	NR
420	68	NR	550	667	NR	680	290	NR	810	6	NR	940	0	NR
425	128	NR	555	693	NR	685	251	NR	815	5	NR	945	0	NR
430	214	NR	560	719	NR	690	218	NR	820	4	NR	950	0	NR
435	339	NR	565	754	NR	695	188	NR	825	4	NR	955	0	NR
440	507	NR	570	791	NR	700	162	NR	830	3	NR	960	0	NR
445	573	NR	575	830	NR	705	139	NR	835	3	NR	965	0	NR
450	356	NR	580	873	NR	710	119	NR	840	3	NR	970	0	NR
455	217	NR	585	913	NR	715	102	NR	845	2	NR	975	0	NR
460	168	NR	590	948	NR	720	88	NR	850	2	NR	980	0	NR
465	113	NR	595	974	NR	725	76	NR	855	2	NR	985	0	NR
470	85	NR	600	994	NR	730	65	NR	860	1	NR	990	0	NR
475	85	NR	605	998	NR	735	55	NR	865	1	NR	995	0	NR
480	94	NR	610	994	NR	740	47	NR	870	1	NR	1000	0	NR
485	120	NR	615	973	NR	745	41	NR	875	1	NR			

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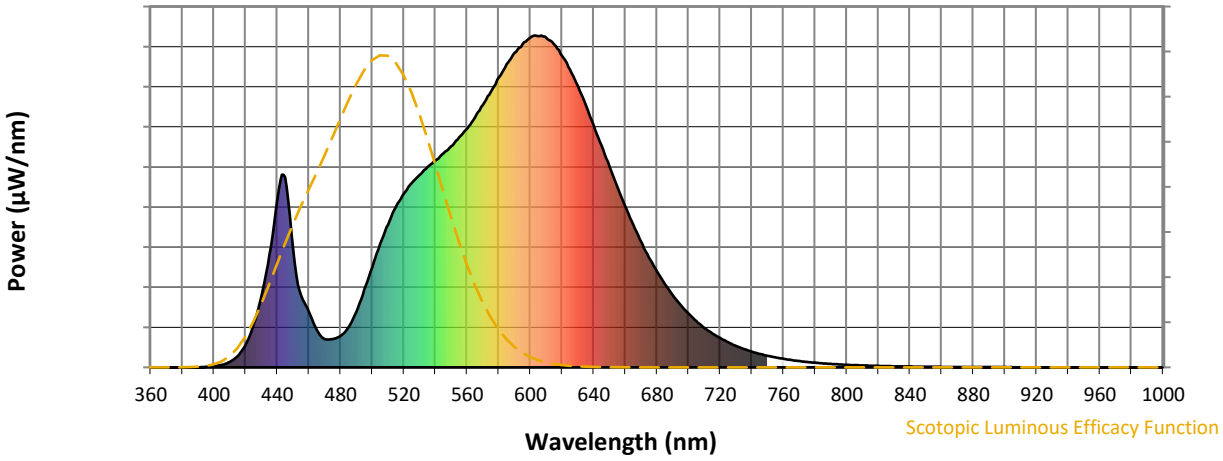
Scotopic Flux vs. Wavelength



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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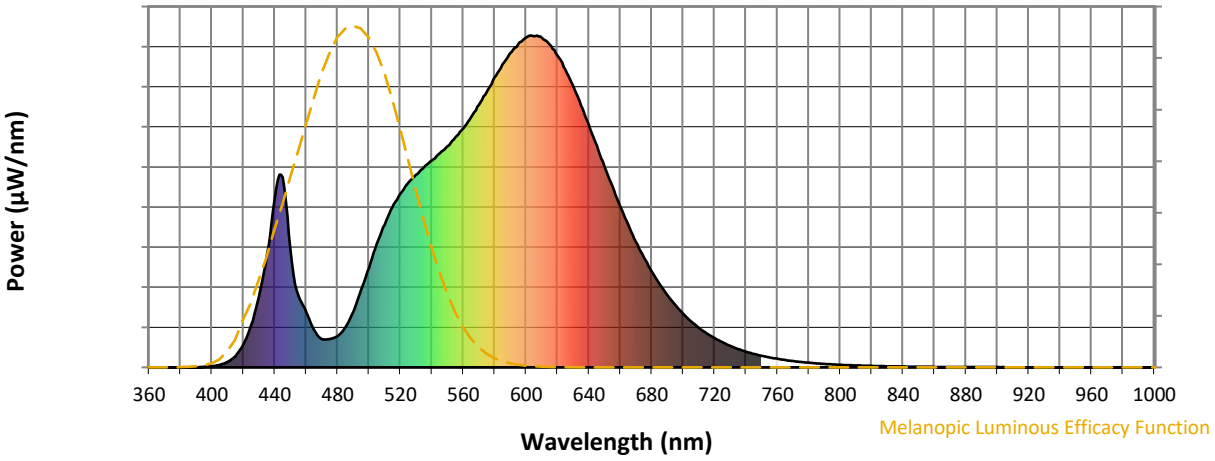
Melanopic Flux vs. Wavelength



Melanopic Lumens: NR **M/P: 2.32**

λ (nm)	Power 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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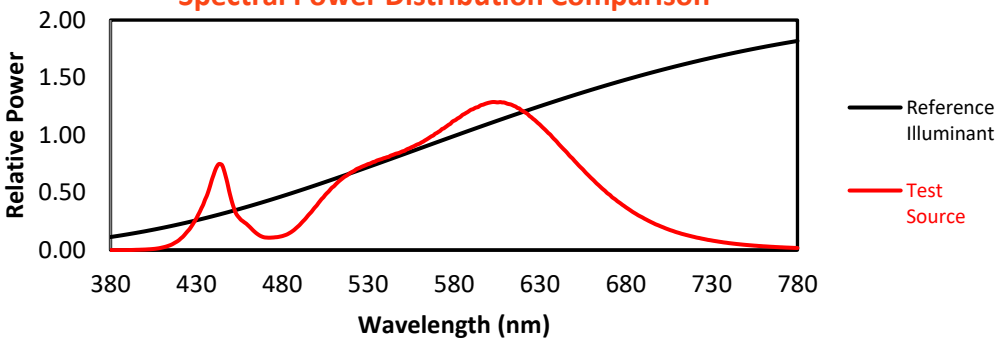
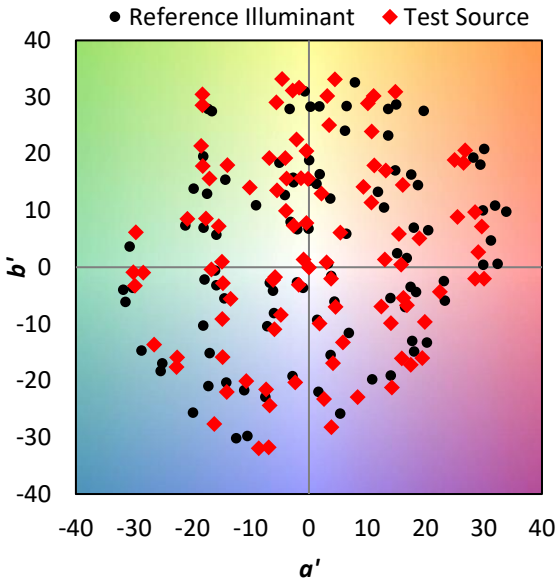
Summary

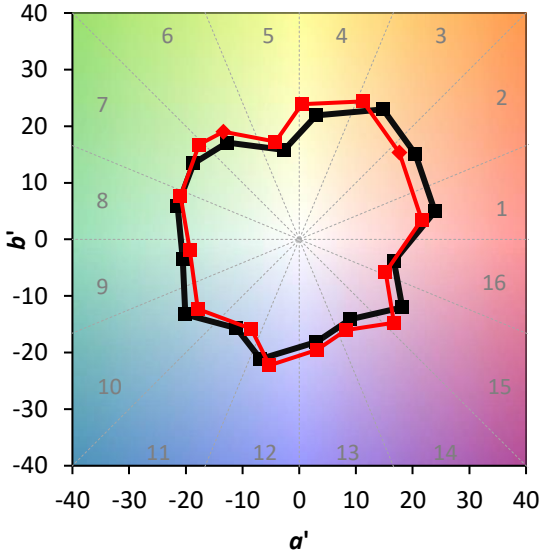
R_f = 81.5
R_g = 99.2
CIE R_a = 81.0
R_9 = 7.1

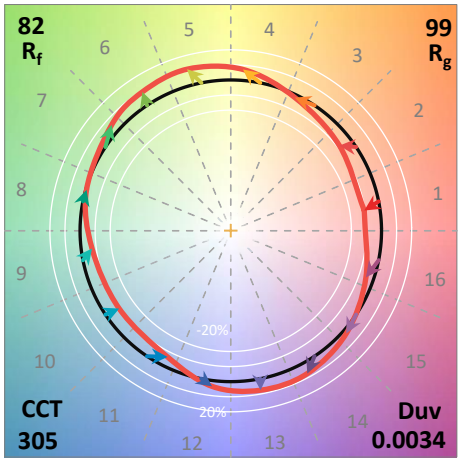
Spectral Power Distribution Comparison

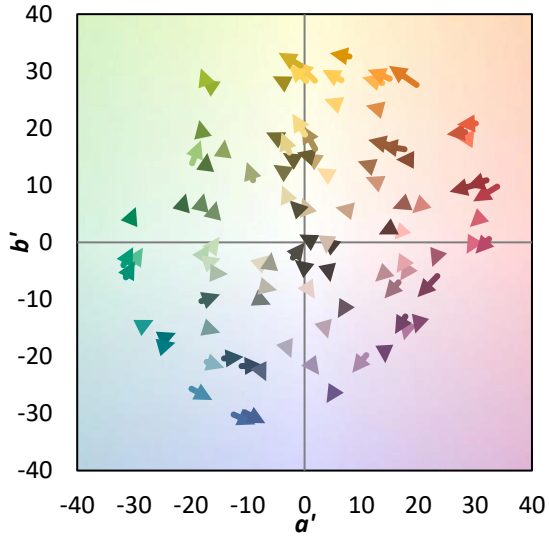


Color Vector Graphics









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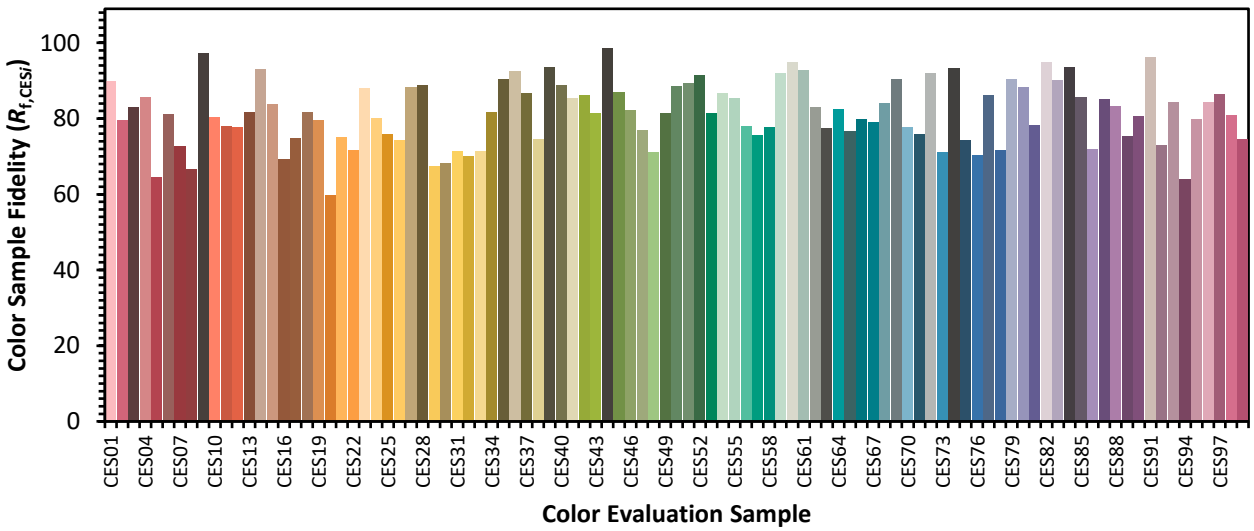
Individual Sample Fidelity Index ($R_{f,i}$)

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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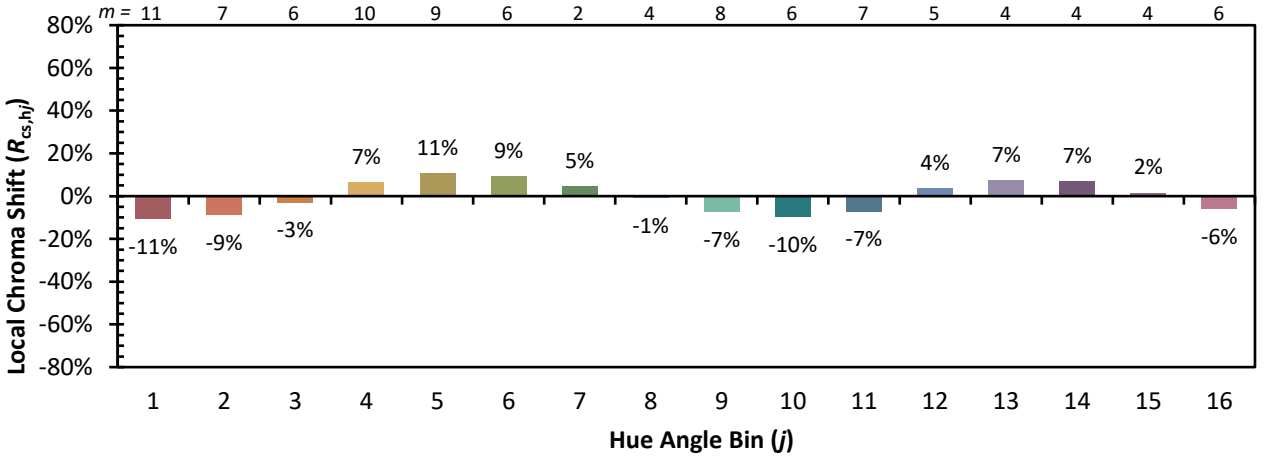
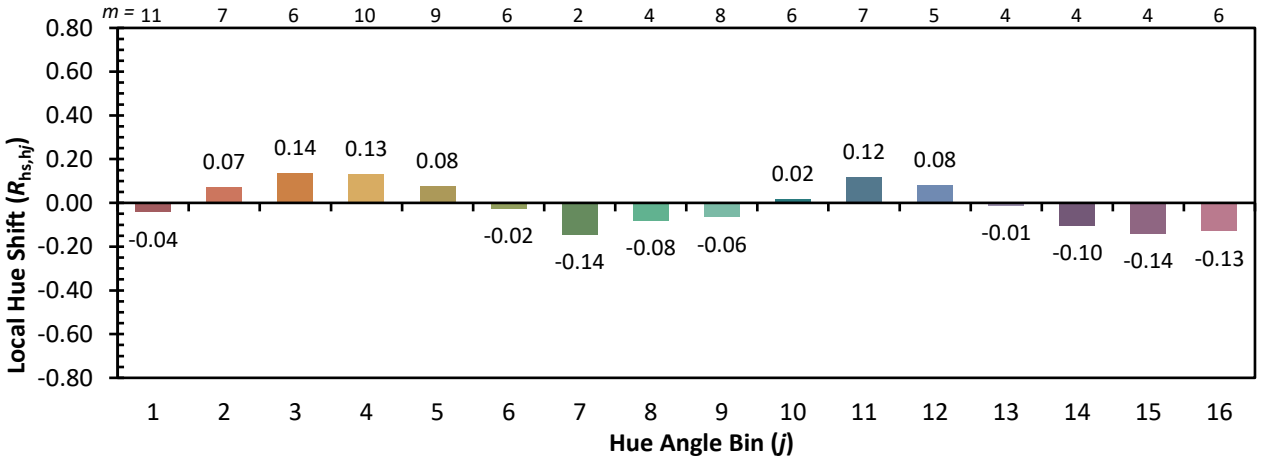
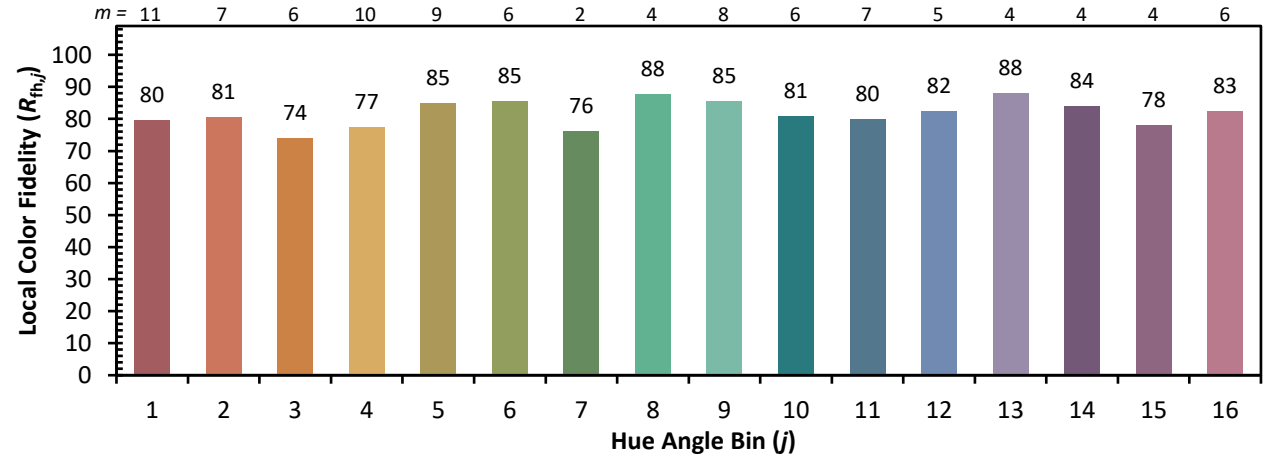
Color Rendition by Hue-Angle Bin







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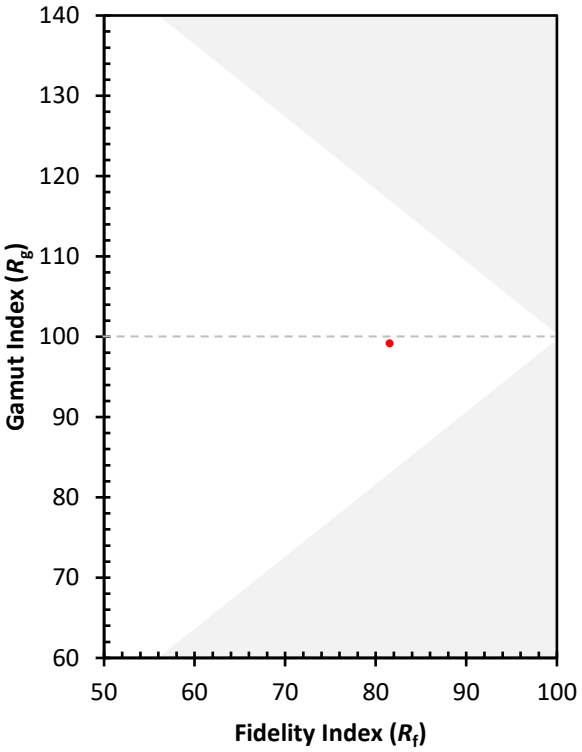
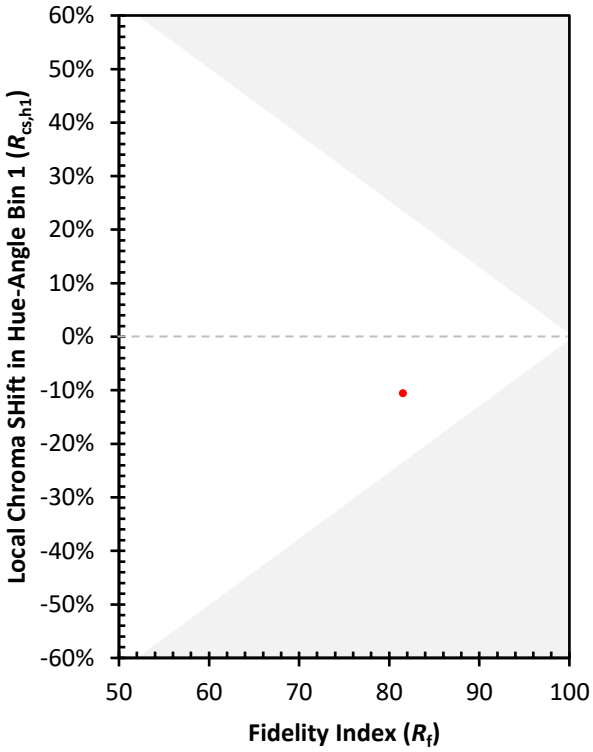
Measure Comparisons





(END OF REPORT)