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: P634018

Luminaire Tested: GWS-SA2F-830-U-SL3-W-GRSBK

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:	P634018
	TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-32)
Test Lab:	COOPER LIGHTING SOLUTIONS
Issue Date:	1/10/2023
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	McGRAW-EDISON
Catalog Number:	GWS-SA2F-830-U-SL3-W-GRSBK
Description:	GALLEON WALL SLIM LUMINAIRE. (2) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III SPILL LIGHT ELIMINATOR OPTICS W/ FACTORY INSTALLED GLARE SHIELD, BK
Light Source:	(32) 3000K CCT, 80 CRI LEDS
Ballast/Driver:	-

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	7537.6 lumens
Efficiency:	N/A
Efficacy:	60.5 lumens/watt
Luminous Opening:	Rectangular (W 1' x L: 0.5' x H: 0')
IES Classification:	Type II - Short
BUG Rating:	B2 - U0 - G1

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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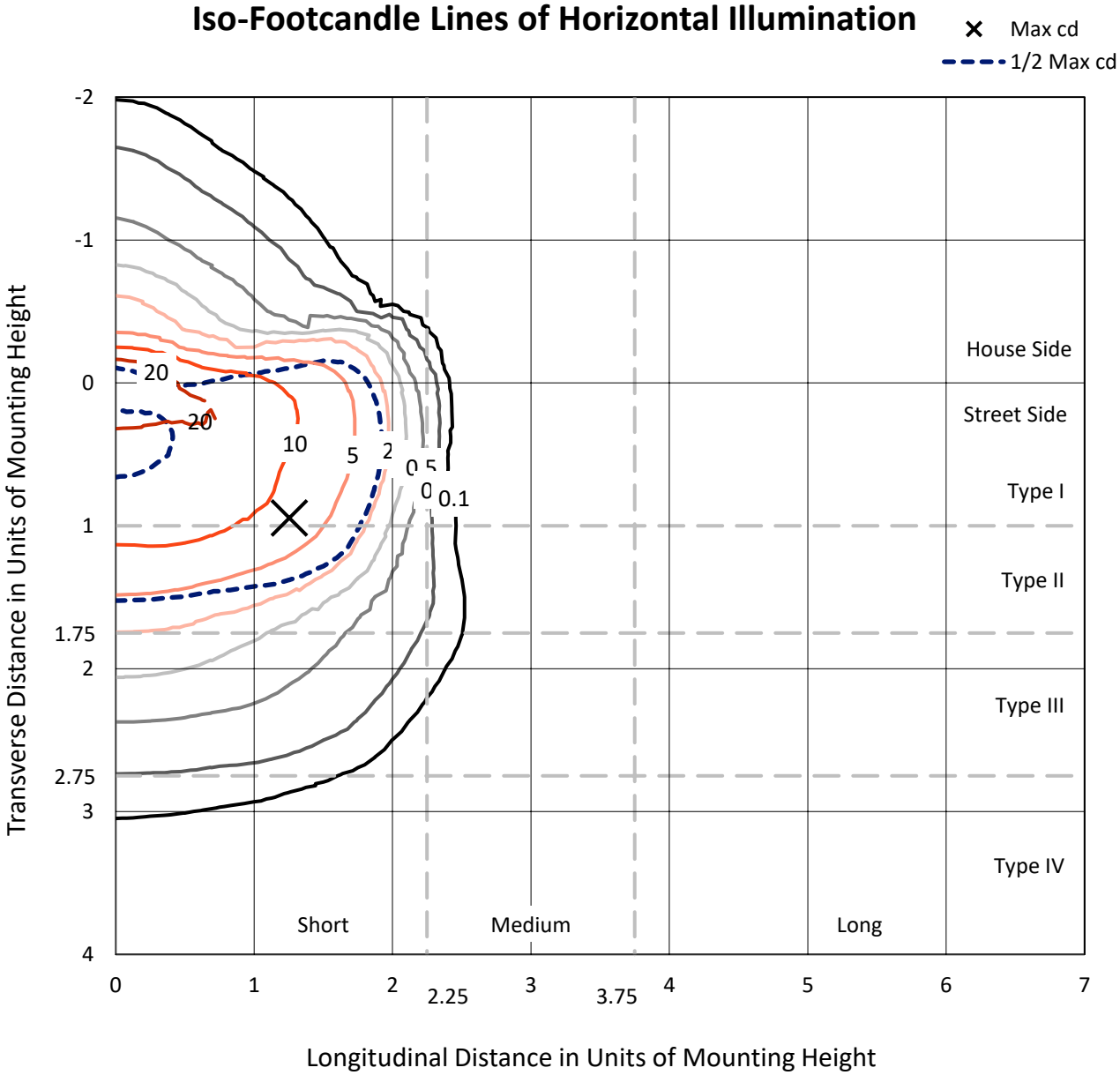
Scaled Data Report

REPORT NUMBER: P634018
CATALOG NUMBER: GWS-SA2F-830-U-SL3-W-GRSBK

Iso-Footcandle Lines of Horizontal Illumination



Based on 10 foot mounting height. Maximum calculated value = 33.1 fc
Type II - Short - N/A

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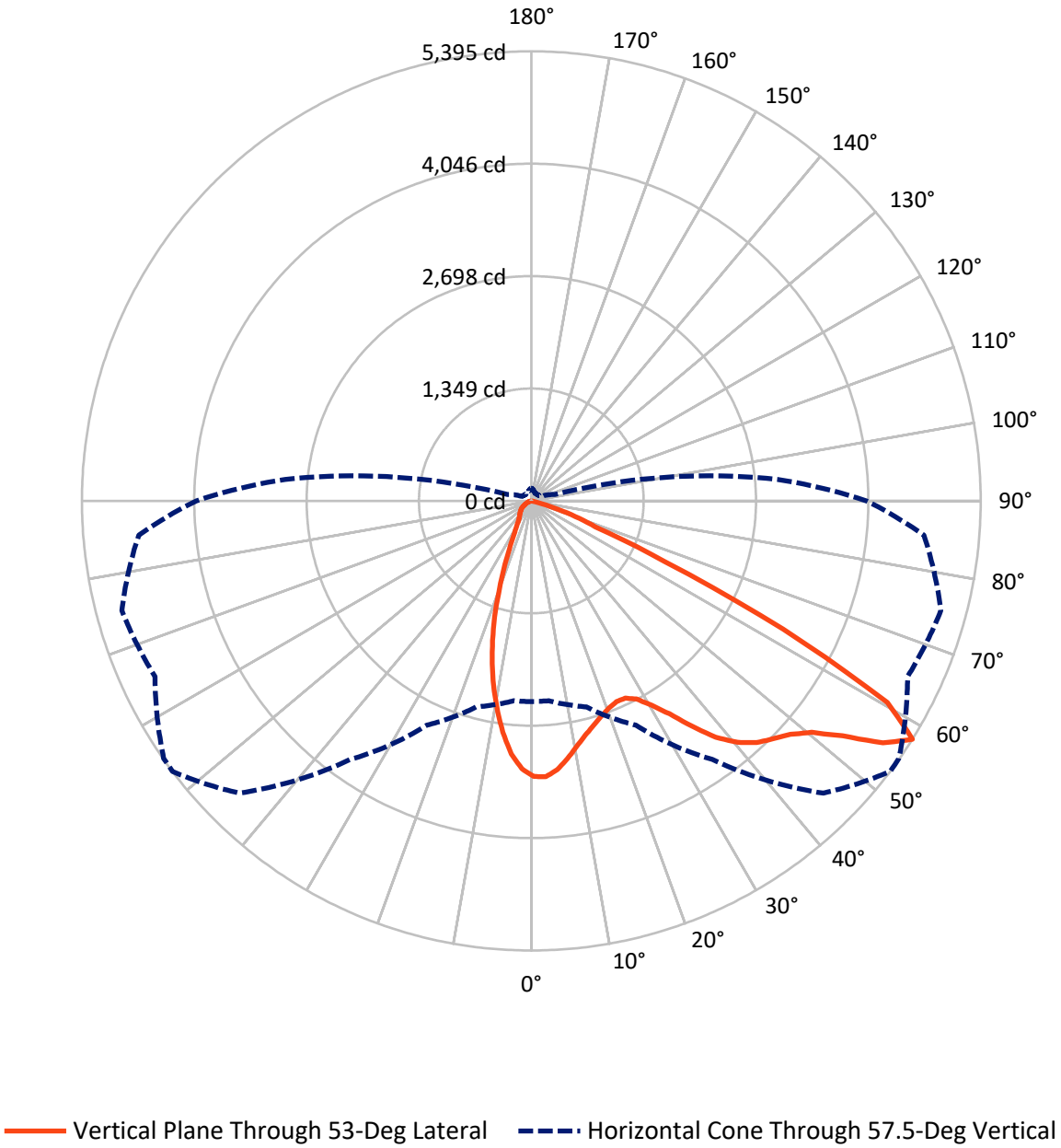
Luminous Intensity Polar Plot



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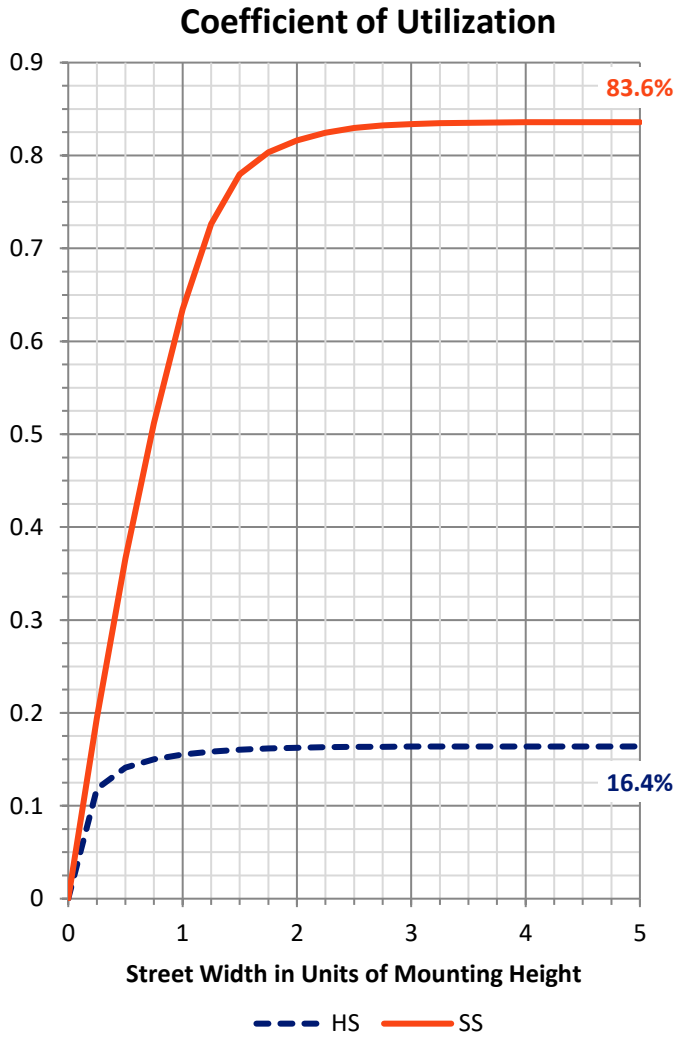
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1245.1	0.0	1245.1
	% Fixture	16.5	0.0	16.5
Street Side	Lumens	6292.5	0.0	6292.5
	% Fixture	83.5	0.0	83.5
Total	Lumens	7537.6	0.0	7537.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	282.9	3.8
10°-20°	621.0	8.2
20°-30°	809.1	10.7
30°-40°	1173.6	15.6
40°-50°	1693.4	22.5
50°-60°	2048.0	27.2
60°-70°	834.7	11.1
70°-80°	75.0	1.0
80°-90°	0.0	0.0
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°	7537.6	100.0
0°-180°	7537.6	100.0



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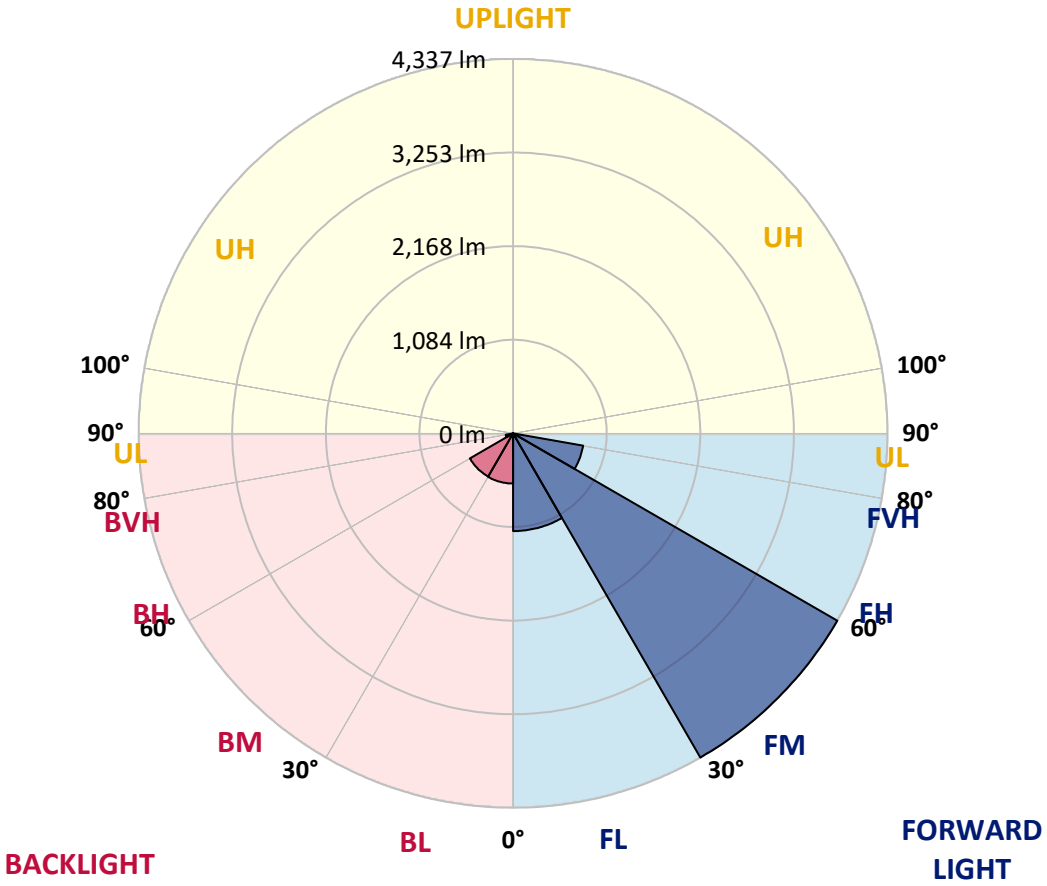
LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	1131.9	15.0			
FM	(30°-60°)	4337.0	57.5			
FH	(60°-80°)	823.6	10.9			G1/1800
FVH	(80°-90°)	0.0	0.0			G0/10
BL	(0°-30°)	581.1	7.7	B2/1000		
BM	(30°-60°)	577.9	7.7	B1/1000		
BH	(60°-80°)	86.1	1.1	B0/110		G0/110
BVH	(80°-90°)	0.0	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G1
Type II Short



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Scaled Data Report

REPORT NUMBER: P634018
CATALOG NUMBER: GWS-SA2F-830-U-SL3-W-GRSBK

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	53°	55°	65°	75°	85°
0°	3306.4	3306.4	3306.4	3306.4	3306.4	3306.4	*3306.4*	3306.4	3306.4	3306.4	3306.4
2.5°	3260.2	3267.6	3280.6	3297.2	3308.3	3313.8	*3313.8*	3329.5	3319.4	3311.0	3301.8
5°	3120.7	3128.1	3145.7	3172.5	3199.3	3218.7	*3240.8*	3257.5	3263.9	3263.9	3248.2
7.5°	2924.0	2934.1	2945.2	2982.2	3040.4	3083.8	*3121.7*	3145.7	3180.8	3191.9	3169.7
10°	2712.4	2722.6	2747.5	2798.3	2864.8	2929.5	*2994.2*	3024.7	3084.7	3116.1	3091.2
12.5°	2533.2	2537.8	2571.0	2632.0	2717.0	2805.7	*2884.2*	2915.6	3000.6	3047.7	3018.2
15°	2385.4	2388.1	2421.4	2488.8	2586.8	2695.8	*2794.6*	2826.9	2931.3	3002.5	2958.1
17.5°	2273.6	2274.5	2303.1	2376.1	2478.7	2599.7	*2717.0*	2756.7	2891.6	2977.5	2911.0
20°	2217.2	2214.4	2234.8	2298.5	2395.5	2516.5	*2655.1*	2704.1	2869.4	2973.8	2875.0
22.5°	2218.1	2211.7	2220.0	2265.3	2347.5	2461.1	*2616.3*	2671.7	2871.3	2989.5	2844.5
25°	2270.8	2261.6	2263.4	2287.4	2345.6	2449.1	*2621.9*	2681.0	2908.2	3042.2	2833.4
27.5°	2359.5	2349.3	2349.3	2361.3	2392.7	2487.0	*2691.1*	2758.6	3007.1	3144.7	2856.5
30°	2474.0	2463.9	2460.2	2472.2	2498.1	2584.9	*2845.4*	2915.6	3176.2	3312.9	2930.4
32.5°	2605.2	2593.2	2599.7	2616.3	2641.3	2761.4	*3044.1*	3137.4	3387.7	3539.2	3063.5
35°	2743.8	2733.6	2763.2	2799.2	2838.0	3006.2	*3318.4*	3399.7	3647.3	3821.0	3266.7
37.5°	2875.9	2871.3	2933.2	3008.9	3089.3	3300.0	*3597.4*	3660.3	3870.0	4127.7	3515.2
40°	3008.0	3007.1	3113.3	3246.4	3374.8	3592.8	*3809.0*	3860.7	4005.8	4366.1	3753.6
42.5°	3155.8	3155.8	3302.7	3480.1	3651.0	3840.4	*3964.2*	3987.3	4066.7	4503.7	3932.8
45°	3297.2	3305.5	3475.5	3681.5	3883.8	4033.5	*4071.4*	4073.2	4091.7	4585.0	4081.5
47.5°	3409.0	3416.4	3619.6	3857.0	4075.1	4180.4	*4185.9*	4177.6	4157.3	4662.6	4196.1
50°	3499.5	3510.6	3723.1	3974.4	4206.2	4321.7	*4364.2*	4355.9	4304.2	4745.8	4276.5
52.5°	3543.8	3559.6	3759.1	4032.6	4352.2	4563.8	*4682.0*	4701.4	4524.0	4792.0	4353.1
55°	3189.1	3212.2	3396.0	3770.2	4433.5	4937.9	*5123.6*	5119.9	4762.4	4929.6	4539.7
57.5°	*2408.4*	*2406.6*	*2559.0*	*2968.3*	*3786.8*	*4959.2*	*5395.2*	*5387.8*	*4985.0*	*5089.4*	*4731.0*
60°	1639.8	1628.7	1669.4	1867.1	2647.7	4039.9	*4910.2*	5010.0	4827.1	4701.4	4016.9
62.5°	1349.7	1339.6	1326.6	1272.1	1520.6	2516.5	*3392.3*	3543.8	3519.8	3267.6	2519.3
65°	1104.9	1113.2	1149.3	1126.2	1057.8	1290.6	*1760.8*	1850.5	1691.5	1423.6	880.4
67.5°	814.8	818.5	865.6	987.6	950.6	859.2	*828.7*	843.5	494.3	227.3	146.9
70°	481.3	484.1	527.5	691.0	771.4	659.6	*559.8*	551.5	195.9	61.0	66.5
72.5°	272.5	267.0	275.3	328.9	420.3	350.1	*288.2*	262.4	59.1	34.2	34.2
75°	129.3	125.6	108.1	101.6	92.4	59.1	*37.0*	31.4	14.8	13.9	13.9
77.5°	0.9	2.8	1.8	2.8	2.8	1.8	*0.9*	0.9	2.8	2.8	3.7
80°	0.0	0.0	0.0	0.0	0.0	0.0	*0.0*	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	*0.0*	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	*0.0*	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	*0.0*	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	*0.0*	0.0	0.0	0.0	0.0

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REPORT NUMBER: P634018
CATALOG NUMBER: GWS-SA2F-830-U-SL3-W-GRSBK

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3306.4	3306.4	3306.4	3306.4	3306.4	3306.4	3306.4	3306.4	3306.4	3306.4	3306.4
2.5°	3285.2	3257.5	3251.0	3249.1	3223.3	3195.6	3166.9	3155.8	3139.2	3129.0	3137.4
5°	3223.3	3183.6	3148.4	3116.1	3058.8	2996.0	2941.5	2906.4	2873.1	2851.0	2856.5
7.5°	3135.5	3083.8	3003.4	2921.2	2815.9	2721.6	2616.3	2551.6	2491.6	2458.3	2474.0
10°	3042.2	2973.8	2845.4	2705.9	2540.6	2392.7	2242.2	2119.3	2048.2	1980.7	1988.1
12.5°	2950.7	2860.2	2668.0	2456.5	2247.7	2029.7	1802.4	1632.4	1516.0	1432.0	1419.0
15°	2865.7	2749.3	2495.3	2216.3	1931.7	1641.7	1351.6	1108.6	973.7	890.6	885.0
17.5°	2790.0	2645.9	2316.1	1965.0	1608.4	1237.0	903.5	721.5	643.9	607.9	604.2
20°	2717.0	2541.5	2133.1	1710.0	1255.5	868.4	623.6	539.5	514.6	499.8	501.6
22.5°	2646.8	2427.8	1941.0	1427.3	941.4	609.7	483.2	450.8	448.1	449.9	450.8
25°	2587.7	2323.5	1743.3	1154.8	671.6	464.7	403.7	394.5	402.8	414.8	416.7
27.5°	2557.2	2238.5	1550.2	880.4	485.9	377.9	350.1	353.8	368.6	381.5	383.4
30°	2565.5	2174.7	1350.7	638.4	374.2	318.7	309.5	316.9	331.7	343.7	345.5
32.5°	2624.6	2142.4	1146.5	464.7	307.6	278.1	274.4	279.9	292.9	302.1	303.0
35°	2742.0	2149.8	952.5	355.7	264.2	247.6	246.7	250.4	256.8	263.3	264.2
37.5°	2914.7	2209.8	761.2	295.6	239.3	227.3	223.6	223.6	228.2	231.0	232.8
40°	3100.4	2300.4	609.7	261.4	221.7	208.8	201.4	198.6	202.3	206.0	206.9
42.5°	3253.8	2390.9	495.2	237.4	207.9	190.3	181.1	179.2	183.8	190.3	192.2
45°	3371.1	2461.1	413.0	218.0	192.2	172.8	162.6	162.6	170.9	182.0	183.8
47.5°	3478.3	2517.5	352.0	200.5	177.4	157.1	146.9	148.7	162.6	177.4	180.1
50°	3551.2	2562.7	306.7	184.8	165.4	144.1	134.9	138.6	155.2	172.8	175.5
52.5°	3629.8	2618.2	277.2	170.9	154.3	134.0	125.6	128.4	146.9	166.3	170.0
55°	3846.9	2803.9	276.2	152.4	134.9	120.1	116.4	117.3	135.8	158.0	162.6
57.5°	*4024.2*	*2967.4*	*294.7*	*128.4*	*112.7*	*105.3*	*103.5*	*104.4*	*121.0*	*146.0*	*151.5*
60°	3329.5	2305.9	243.9	106.2	94.2	92.4	89.6	91.5	107.2	129.3	134.0
62.5°	1970.5	1318.3	116.4	81.3	80.4	78.5	75.8	79.5	94.2	113.6	116.4
65°	673.5	390.8	73.9	66.5	68.4	65.6	62.8	66.5	79.5	90.5	91.5
67.5°	129.3	103.5	59.1	55.4	56.4	50.8	49.9	53.6	61.0	62.8	61.9
70°	67.4	60.0	45.3	45.3	43.4	36.0	36.0	39.7	39.7	37.0	36.0
72.5°	35.1	33.3	29.6	33.3	27.7	22.2	22.2	24.0	22.2	18.5	18.5
75°	13.9	13.9	12.9	16.6	12.0	10.2	9.2	11.1	8.3	6.5	6.5
77.5°	3.7	3.7	3.7	4.6	2.8	2.8	1.8	1.8	0.9	0.0	0.0
80°	0.0	0.9	0.0	0.9	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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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

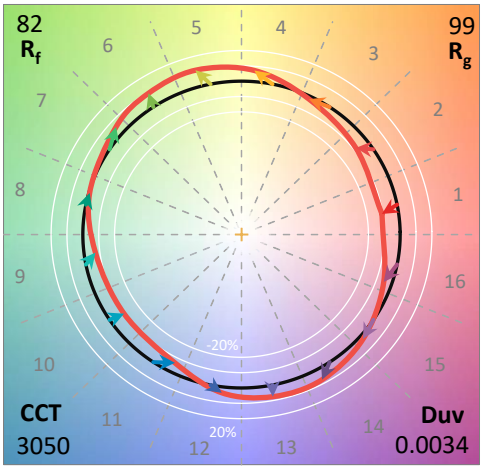
Test Information

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

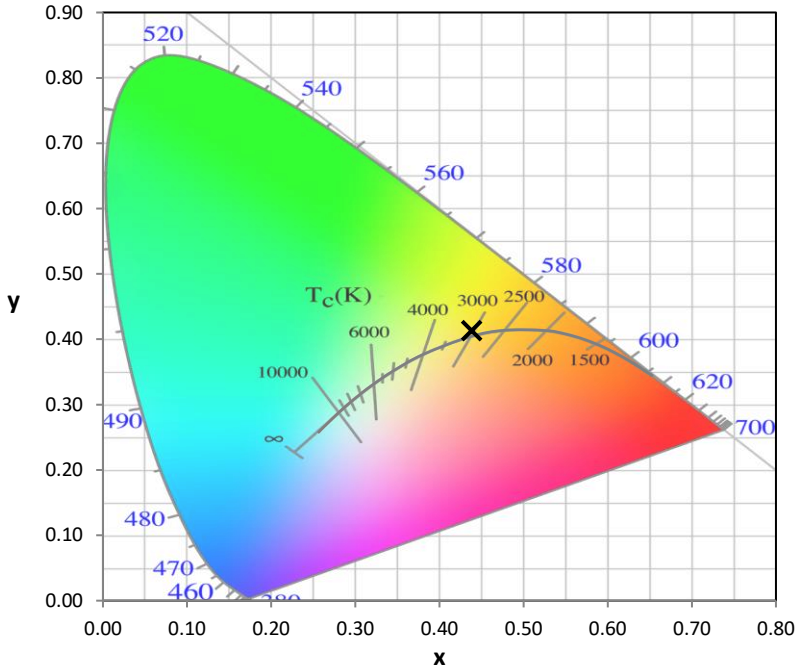
Stabilization Time:	20M
Operation Time:	1H 20M
Sphere Temperature (°C):	24.2

REPORT NUMBER: SP1-2408-195-9

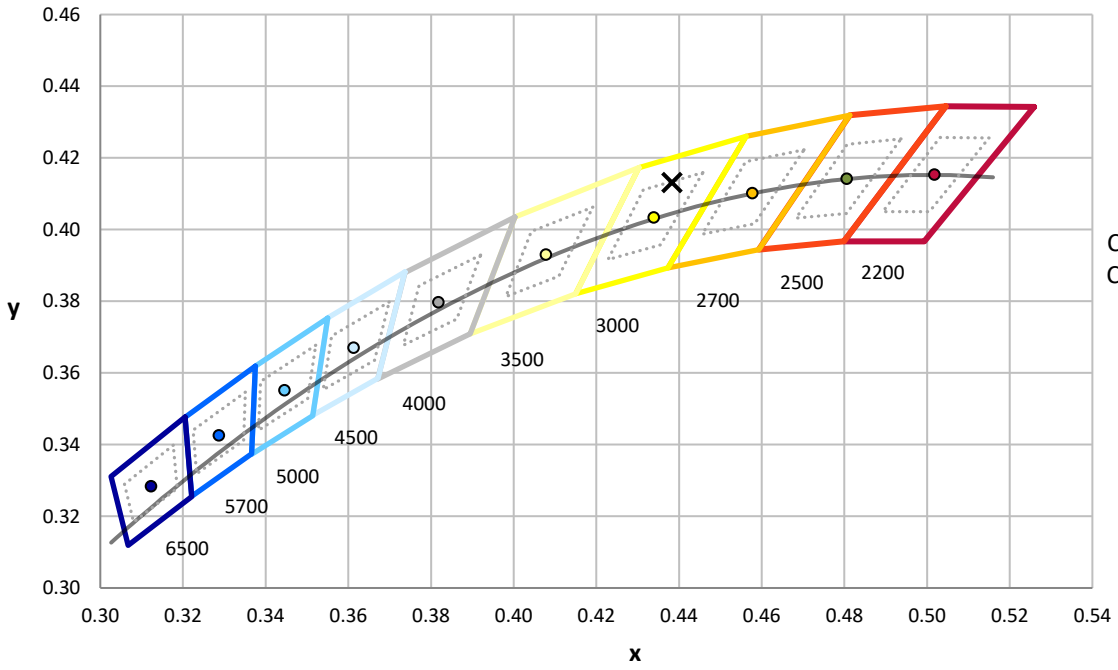
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

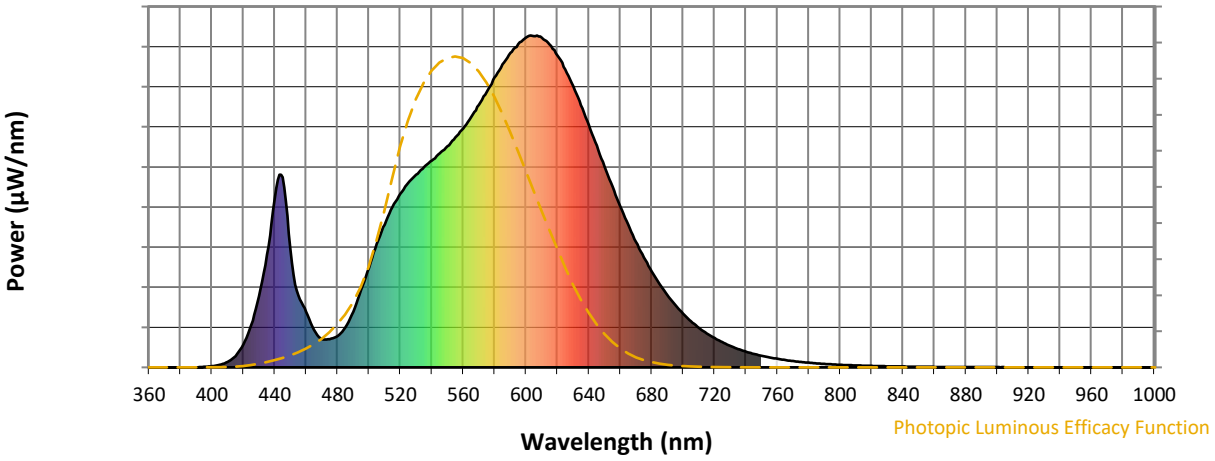


CCT = 3050K
CIE x = 0.4383
CIE y = 0.4131
Duv = 0.0034

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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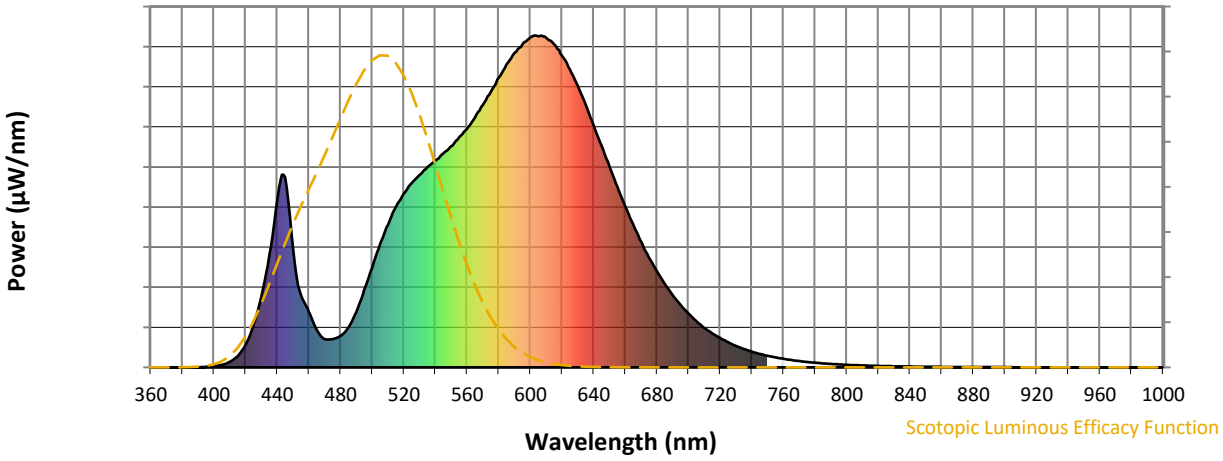
Scotopic Flux vs. Wavelength



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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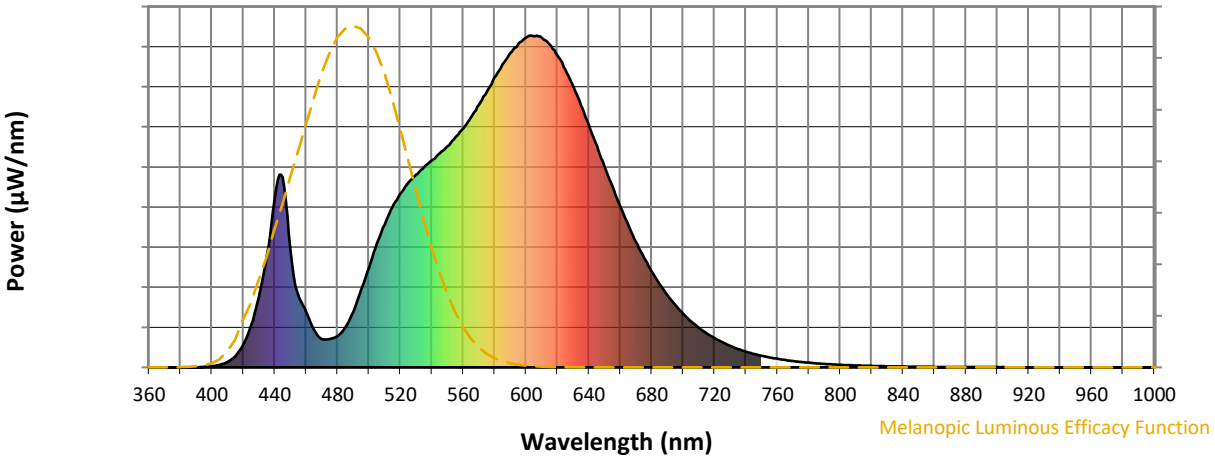
Melanopic Flux vs. Wavelength



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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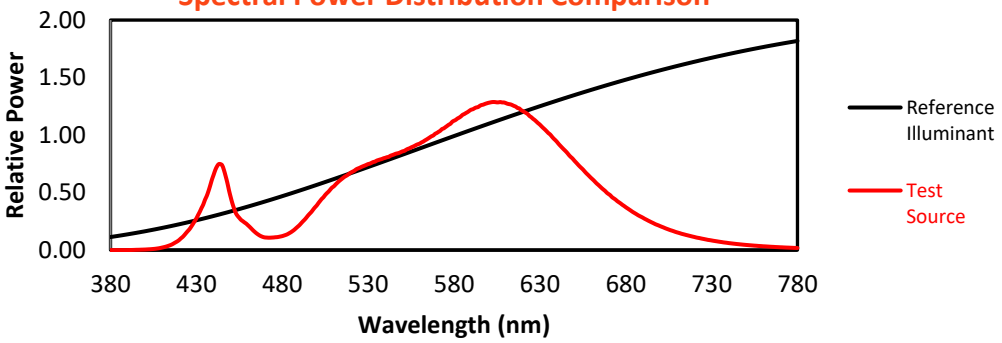
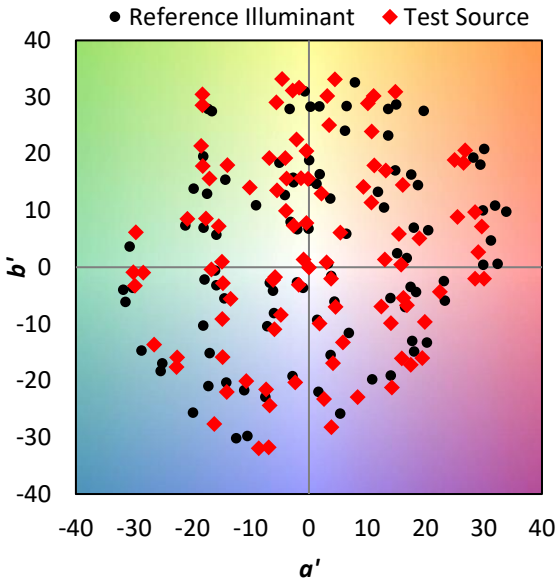
Summary

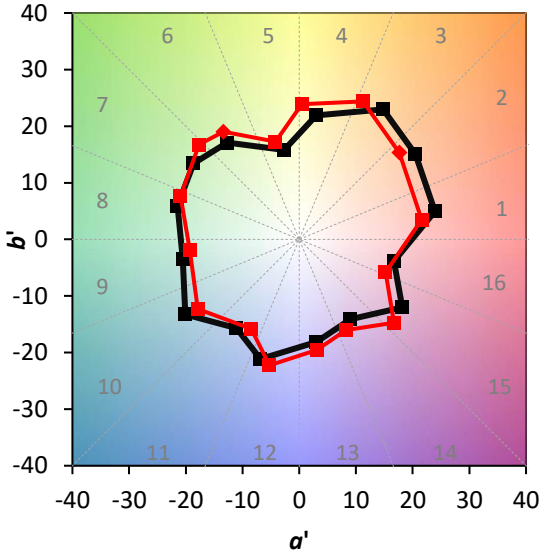
R_f = 81.5
R_g = 99.2
CIE R_a = 81.0
R_9 = 7.1

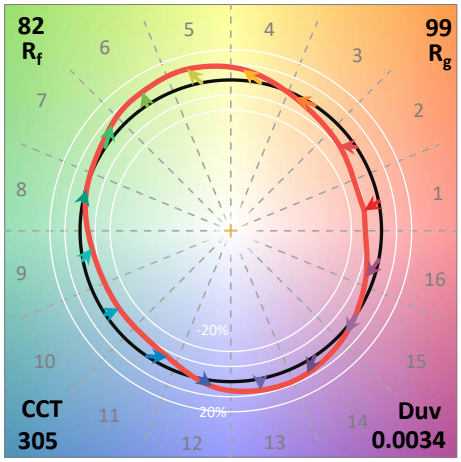
Spectral Power Distribution Comparison

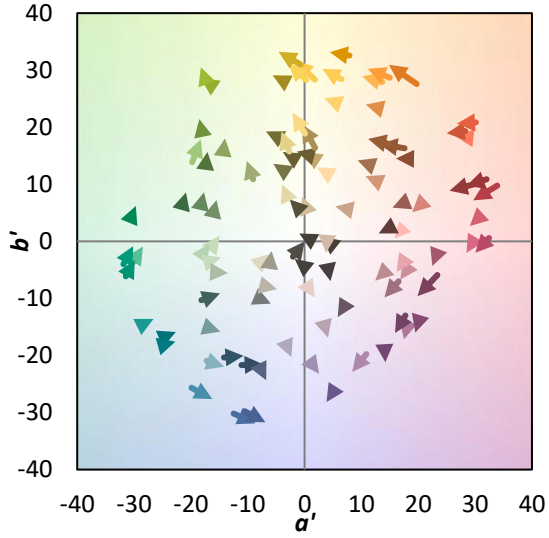


Color Vector Graphics









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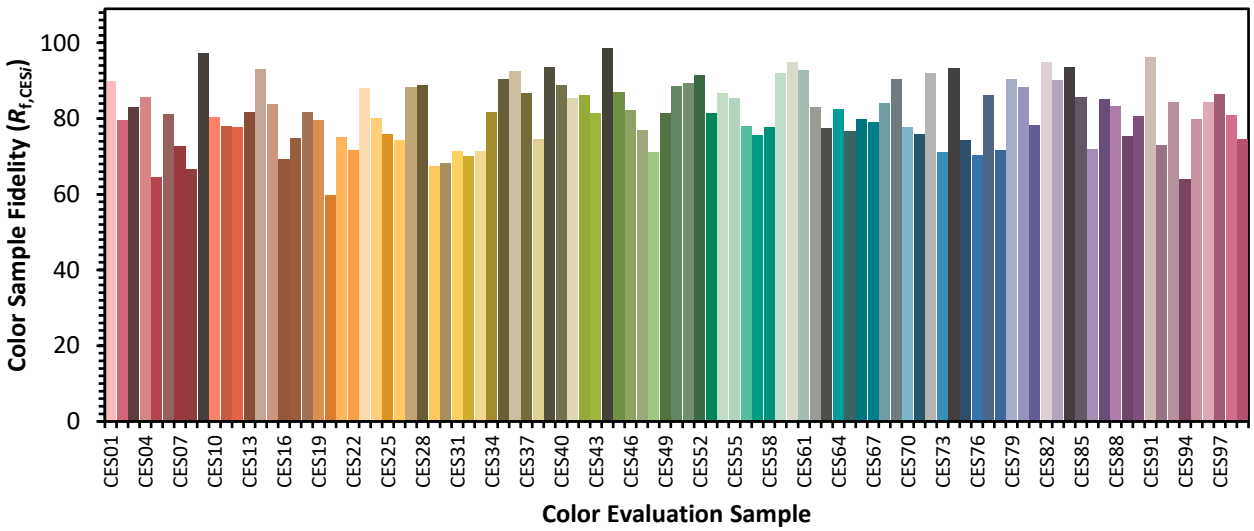
Individual Sample Fidelity Index ($R_{f,i}$)

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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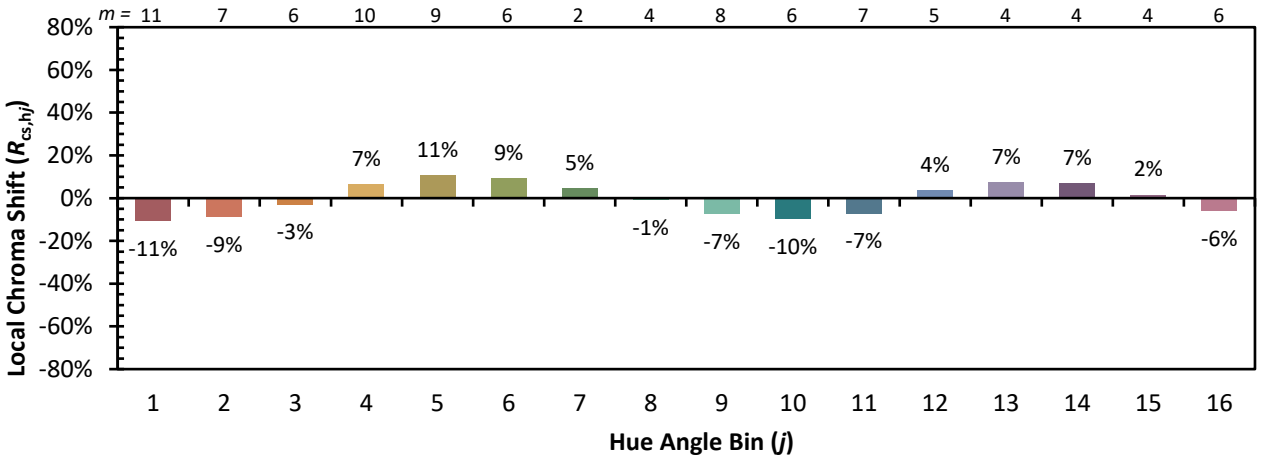
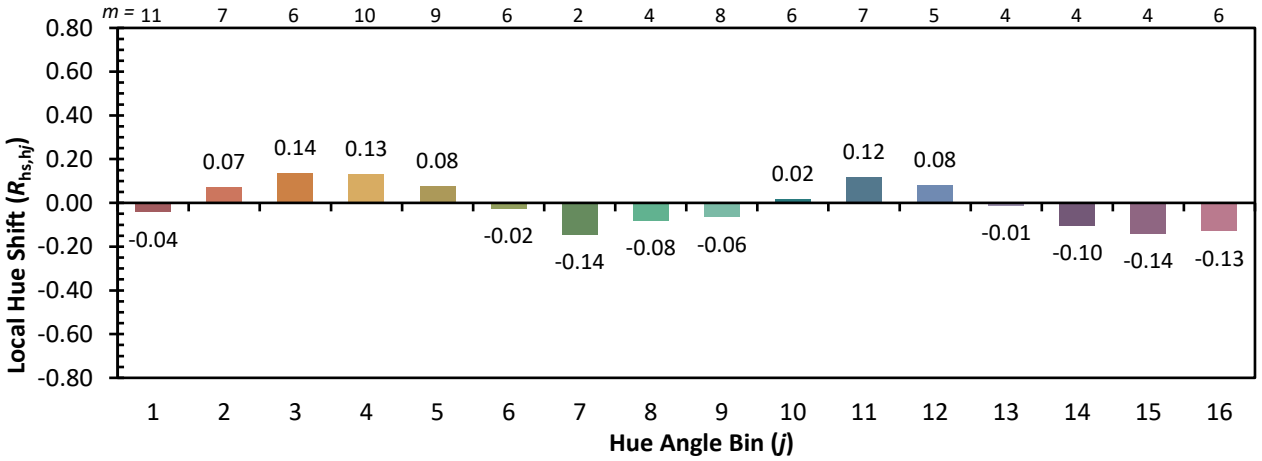
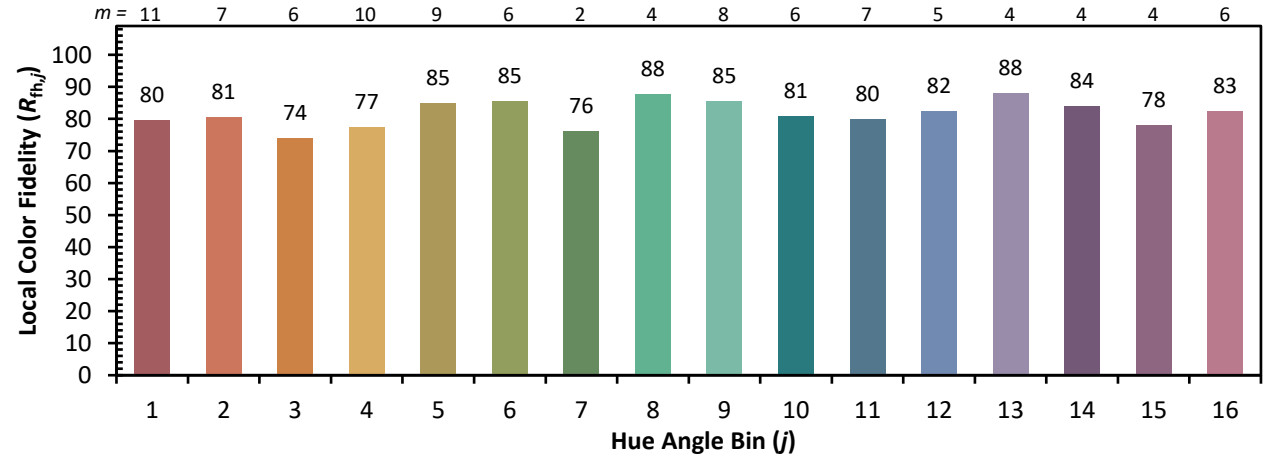
Color Rendition by Hue-Angle Bin







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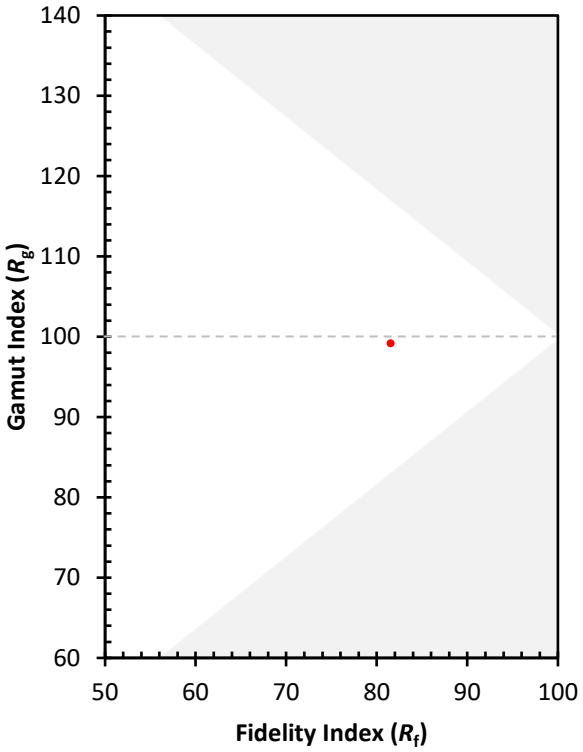
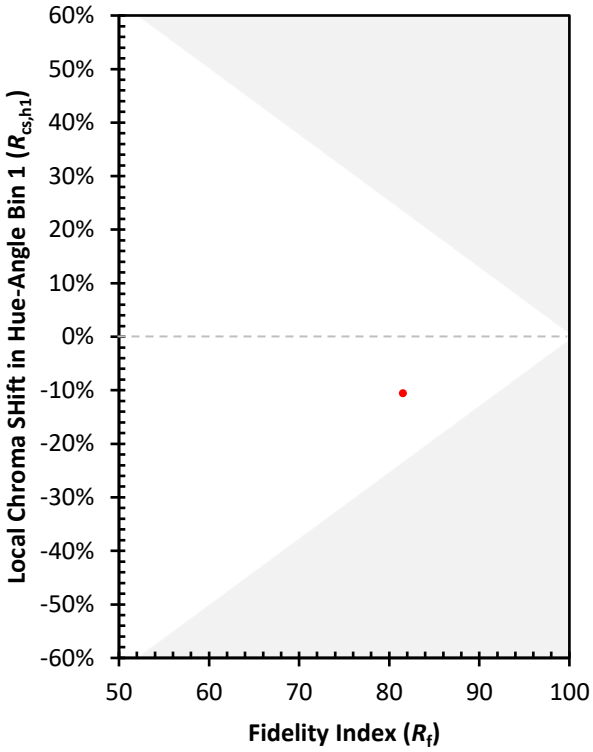
Measure Comparisons





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