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: P639987

Luminaire Tested: GWS-SA5C-830-U-T3R-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:	P639987
	TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-18)
Test Lab:	COOPER LIGHTING SOLUTIONS
Issue Date:	1/10/2023
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	McGRAW-EDISON
Catalog Number:	GWS-SA5C-830-U-T3R-W-HSS
Description:	GALLEON WALL SLIM LUMINAIRE. (5) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III ROADWAY OPTICS WITH HOUSE SIDE SHIELD
Light Source:	(80) 3000K CCT, 80 CRI LEDS
Ballast/Driver:	-

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	14808.2 lumens
Efficiency:	N/A
Efficacy:	94.0 lumens/watt
Luminous Opening:	Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification:	Type III - Medium
BUG Rating:	B2 - U0 - G3

Input Watts (W):	157.5
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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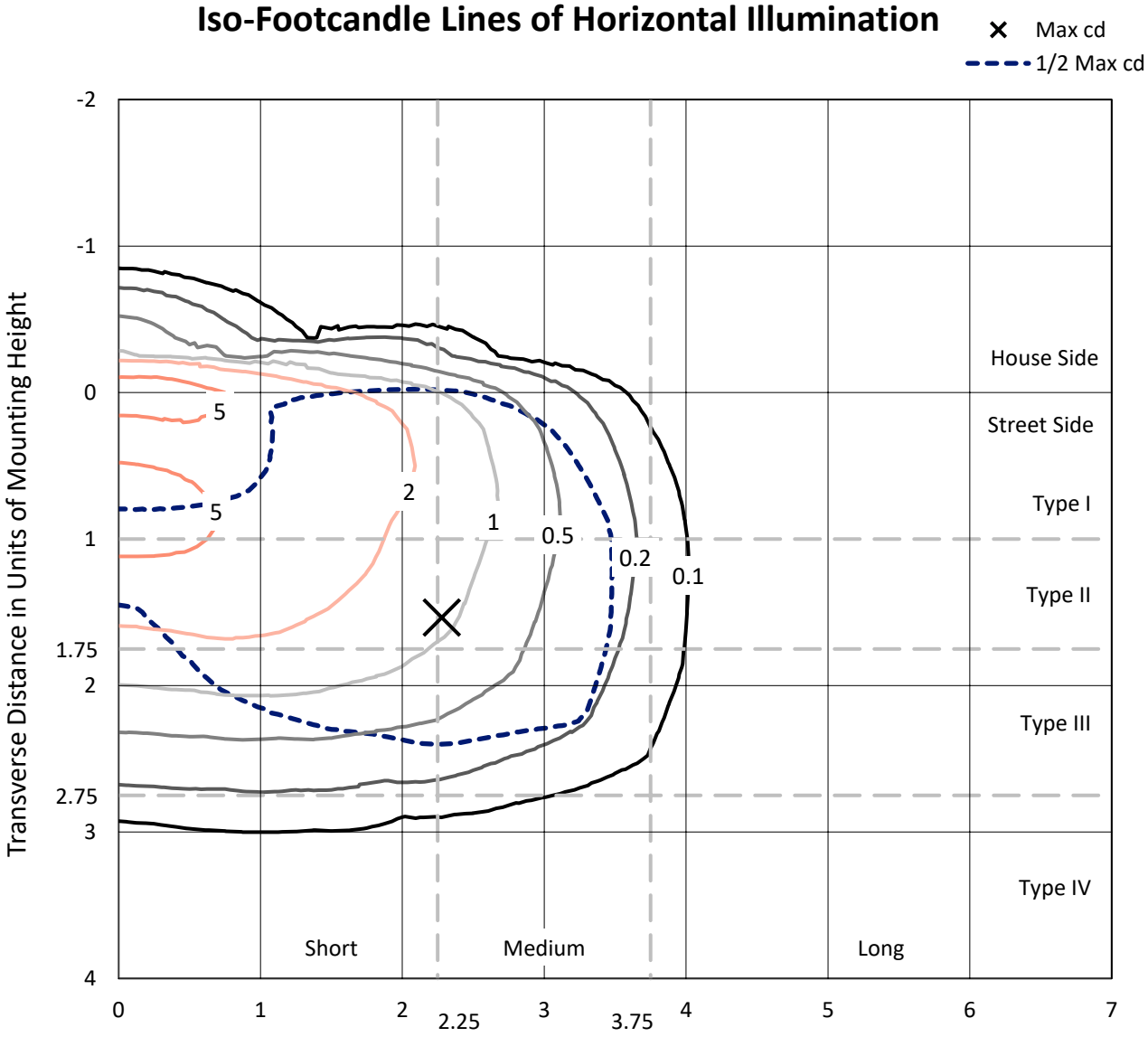
Scaled Data Report

REPORT NUMBER: P639987
CATALOG NUMBER: GWS-SA5C-830-U-T3R-W-HSS

Iso-Footcandle Lines of Horizontal Illumination



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

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REPORT NUMBER: P639987
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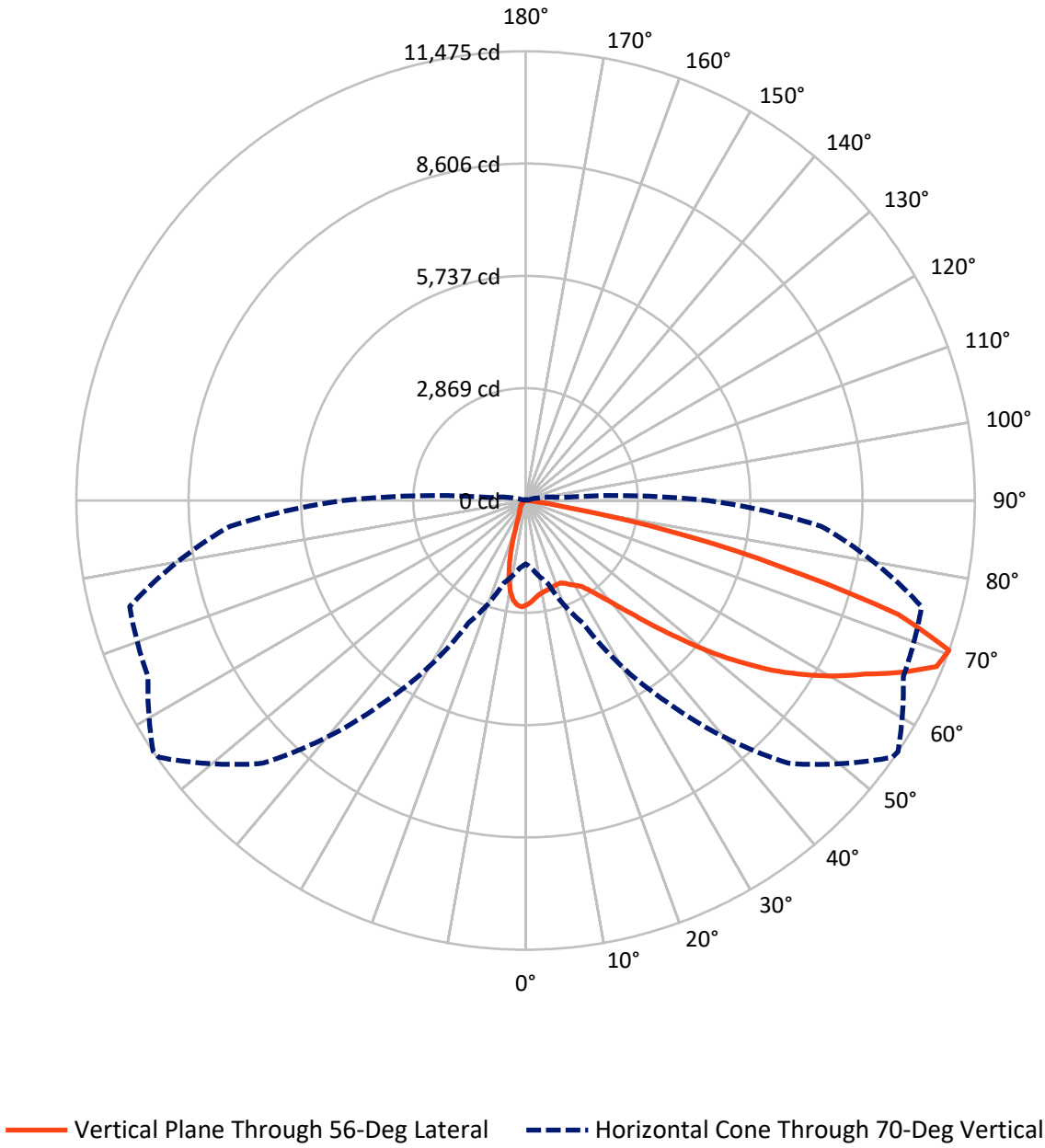
Luminous Intensity Polar Plot



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REPORT NUMBER: P639987
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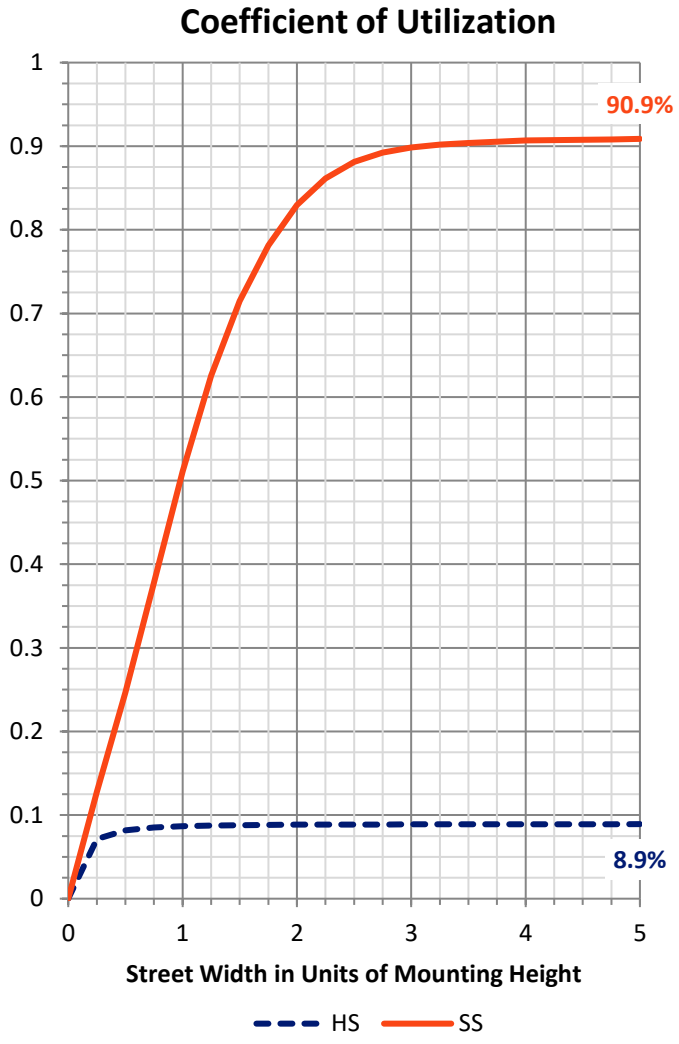
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1330.1	0.0	1330.1
	% Fixture	9.0	0.0	9.0
Street Side	Lumens	13478.1	0.0	13478.1
	% Fixture	91.0	0.0	91.0
Total	Lumens	14808.2	0.0	14808.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	229.2	1.5
10°-20°	515.6	3.5
20°-30°	816.7	5.5
30°-40°	1408.4	9.5
40°-50°	2378.4	16.1
50°-60°	3494.6	23.6
60°-70°	4143.0	28.0
70°-80°	1766.7	11.9
80°-90°	55.5	0.4
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°	14808.2	100.0
0°-180°	14808.2	100.0



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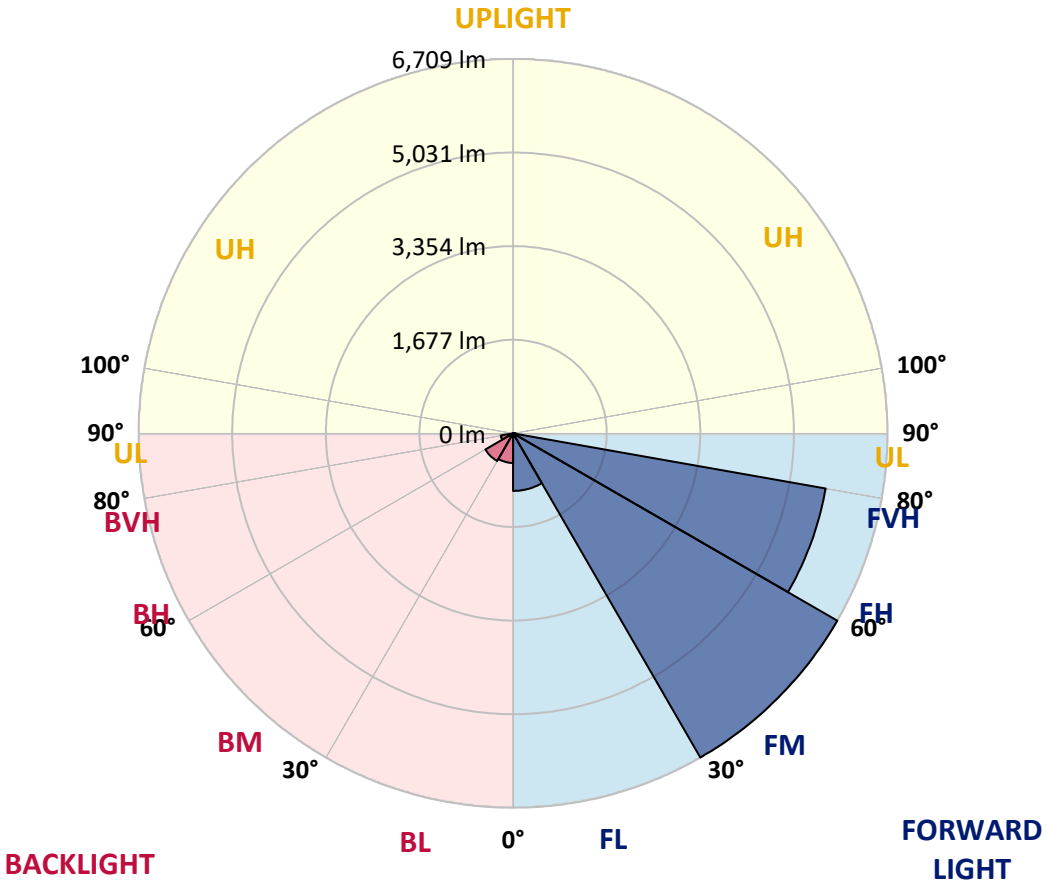
LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	1031.9	7.0			
FM	(30°-60°)	6708.5	45.3			
FH	(60°-80°)	5687.9	38.4			G3/7500
FVH	(80°-90°)	49.8	0.3			G1/100
BL	(0°-30°)	529.7	3.6	B2/1000		
BM	(30°-60°)	572.9	3.9	B1/1000		
BH	(60°-80°)	221.8	1.5	B1/500		G1/500
BVH	(80°-90°)	5.6	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-G3
Type III Medium



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Scaled Data Report

REPORT NUMBER: P639987
CATALOG NUMBER: GWS-SA5C-830-U-T3R-W-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	56°	65°	75°	85°
0°	2670.1	2670.1	2670.1	2670.1	2670.1	2670.1	2670.1	2670.1	2670.1	2670.1	2670.1
2.5°	2485.6	2481.6	2484.3	2504.6	2542.6	2560.2	2590.1	2595.5	2619.9	2651.1	2663.3
5°	2324.3	2310.7	2317.5	2346.0	2389.4	2438.2	2493.8	2508.7	2569.7	2638.9	2690.4
7.5°	2176.5	2161.5	2177.8	2222.6	2283.6	2336.5	2419.2	2428.7	2526.3	2648.4	2741.9
10°	1944.6	1948.6	1981.2	2059.8	2153.4	2263.3	2374.4	2388.0	2508.7	2679.6	2824.7
12.5°	1766.9	1757.4	1792.7	1882.2	2013.7	2173.8	2340.5	2358.2	2510.1	2727.0	2930.4
15°	1684.2	1681.5	1696.4	1761.5	1889.0	2077.5	2309.4	2332.4	2527.7	2770.4	3030.8
17.5°	1686.9	1682.9	1681.5	1719.5	1814.4	2005.6	2275.5	2305.3	2542.6	2817.9	3136.5
20°	1804.9	1785.9	1752.0	1734.4	1791.3	1959.5	2252.4	2286.3	2564.3	2868.1	3249.1
22.5°	2051.7	2058.5	1967.6	1872.7	1845.6	1964.9	2249.7	2289.0	2611.8	2946.7	3387.4
25°	2545.3	2534.5	2366.3	2153.4	2005.6	2027.3	2297.2	2344.6	2705.3	3059.3	3517.6
27.5°	3163.7	3173.2	2942.6	2603.6	2294.4	2156.1	2383.9	2431.4	2813.8	3129.8	3604.4
30°	3837.6	3828.1	3581.3	3205.7	2704.0	2370.4	2470.7	2512.8	2868.1	3167.7	3693.9
32.5°	4475.0	4453.3	4209.2	3815.9	3226.0	2708.0	2590.1	2614.5	2939.9	3250.5	3814.6
35°	5018.8	5017.4	4804.5	4385.5	3763.0	3131.1	2794.8	2815.2	3074.2	3382.0	3992.2
37.5°	5580.2	5561.2	5322.5	4940.1	4315.0	3594.9	3108.1	3099.9	3285.7	3575.9	4210.5
40°	6041.2	6029.0	5845.9	5478.5	4888.6	4107.5	3487.8	3463.4	3536.6	3844.4	4514.3
42.5°	6382.9	6384.3	6327.3	6103.6	5496.1	4700.1	3965.1	3927.1	3925.8	4249.9	4915.7
45°	6641.9	6659.6	6745.0	6711.1	6213.4	5390.3	4576.7	4537.4	4470.9	4776.0	5375.4
47.5°	6762.6	6785.7	7043.3	7178.9	6841.3	6075.1	5304.9	5222.2	5092.0	5475.7	5889.3
50°	6750.4	6791.1	7150.5	7562.7	7410.8	6769.4	6098.2	6058.8	5845.9	6216.1	6397.9
52.5°	6473.8	6560.6	7157.2	7795.9	7848.8	7409.5	6918.6	6845.4	6742.3	6989.1	6875.2
55°	5722.5	5828.3	6871.1	7870.5	8190.6	7968.2	7721.4	7661.7	7490.8	7718.7	7291.5
57.5°	5314.4	5405.2	6269.0	7833.9	8480.8	8484.8	8436.0	8387.2	8246.2	8440.1	7779.7
60°	5068.9	5159.8	5947.6	7699.7	8743.8	9030.0	9107.2	9101.8	8898.4	9260.5	8351.9
62.5°	4709.6	4834.3	5612.7	7351.2	8931.0	9567.0	9800.2	9763.6	9537.1	10114.8	8918.8
65°	3984.1	4092.6	4926.5	6776.2	8821.1	10011.7	10551.4	10570.4	10308.7	10918.9	9366.3
67.5°	2793.5	2873.5	3702.0	5569.3	8075.3	10158.2	11320.3	11319.0	10872.8	11331.2	9168.3
70°	1619.1	1729.0	2187.3	3443.0	6282.6	9492.4	11435.6	11474.9	10643.7	10470.1	7587.1
72.5°	626.5	717.4	1239.4	1829.3	3276.2	7271.2	9836.8	9952.1	8907.9	8076.6	5280.5
75°	187.1	208.8	583.1	973.6	1315.4	3512.2	6659.6	6692.1	6110.4	5037.7	2706.7
77.5°	139.7	154.6	254.9	492.2	461.1	1064.5	3445.7	3763.0	3243.7	1799.5	745.8
80°	94.9	112.6	181.7	240.0	170.9	283.4	968.2	1063.1	989.9	404.1	187.1
82.5°	42.0	54.2	128.8	120.7	62.4	81.4	298.3	317.3	204.8	122.0	65.1
85°	4.1	5.4	48.8	52.9	23.1	19.0	62.4	62.4	44.7	42.0	27.1
87.5°	0.0	0.0	1.4	2.7	2.7	4.1	5.4	6.8	8.1	10.8	13.6
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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Scaled Data Report

REPORT NUMBER: P639987
CATALOG NUMBER: GWS-SA5C-830-U-T3R-W-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2670.1	2670.1	2670.1	2670.1	2670.1	2670.1	2670.1	2670.1	2670.1	2670.1	2670.1
2.5°	2694.5	2678.2	2698.5	2714.8	2718.9	2689.1	2671.4	2645.7	2640.2	2641.6	2634.8
5°	2731.1	2723.0	2737.9	2720.2	2674.1	2587.3	2512.8	2430.0	2385.3	2359.5	2356.8
7.5°	2798.9	2794.8	2778.6	2698.5	2554.8	2362.2	2176.5	1994.8	1882.2	1841.5	1834.7
10°	2899.2	2891.1	2824.7	2634.8	2328.3	1958.1	1646.2	1385.9	1227.2	1181.1	1124.2
12.5°	3014.5	2998.2	2853.1	2497.8	1986.6	1474.0	1084.8	793.3	656.3	615.6	615.6
15°	3125.7	3090.4	2836.9	2271.4	1566.2	958.7	606.2	458.3	416.3	405.5	405.5
17.5°	3239.6	3171.8	2773.1	1962.2	1082.1	566.8	404.1	375.6	370.2	371.6	372.9
20°	3346.7	3241.0	2660.6	1590.6	690.2	396.0	362.1	355.3	352.6	355.3	353.9
22.5°	3463.4	3304.7	2489.7	1185.2	448.9	356.6	344.4	339.0	336.3	340.4	340.4
25°	3578.6	3350.8	2263.3	797.4	356.6	332.2	325.5	320.0	317.3	318.7	318.7
27.5°	3638.3	3333.2	1966.3	508.5	320.0	307.8	301.0	294.3	290.2	288.8	290.2
30°	3679.0	3278.9	1602.9	362.1	290.2	275.3	268.5	263.1	252.2	245.4	248.2
32.5°	3742.7	3224.7	1208.2	303.8	265.8	242.7	231.9	218.3	203.4	196.6	196.6
35°	3818.6	3150.1	847.5	273.9	240.0	215.6	195.3	172.2	154.6	149.2	149.2
37.5°	3919.0	3079.6	564.1	253.6	218.3	192.6	164.1	137.0	118.0	115.3	113.9
40°	4069.5	3019.9	397.3	238.7	199.3	168.2	134.2	105.8	92.2	88.1	88.1
42.5°	4264.8	2958.9	314.6	223.7	183.1	145.1	107.1	84.1	73.2	70.5	69.2
45°	4506.2	2887.0	273.9	210.2	166.8	120.7	85.4	70.5	62.4	59.7	59.7
47.5°	4767.9	2789.4	254.9	192.6	147.8	97.6	71.9	61.0	57.0	55.6	54.2
50°	5025.5	2657.9	238.7	176.3	126.1	80.0	62.4	55.6	52.9	51.5	51.5
52.5°	5250.6	2504.6	218.3	157.3	103.1	69.2	55.6	51.5	48.8	46.1	44.7
55°	5443.2	2337.8	192.6	135.6	84.1	61.0	51.5	47.5	44.7	42.0	40.7
57.5°	5691.4	2242.9	154.6	109.8	69.2	54.2	47.5	43.4	40.7	36.6	36.6
60°	5966.6	2173.8	115.3	86.8	59.7	50.2	43.4	39.3	36.6	32.5	32.5
62.5°	6187.7	2070.7	90.9	70.5	51.5	44.7	39.3	35.3	32.5	28.5	28.5
65°	6271.7	1857.8	74.6	55.6	42.0	39.3	35.3	32.5	28.5	24.4	24.4
67.5°	5892.0	1432.0	62.4	44.7	35.3	33.9	31.2	29.8	24.4	21.7	20.3
70°	*4666.2*	*873.3*	*51.5*	*36.6*	*29.8*	*28.5*	*28.5*	*25.8*	*21.7*	*20.3*	*19.0*
72.5°	3197.6	450.2	42.0	29.8	25.8	25.8	24.4	23.1	20.3	19.0	19.0
75°	1661.2	150.5	32.5	23.1	20.3	21.7	21.7	20.3	19.0	19.0	17.6
77.5°	476.0	67.8	24.4	17.6	16.3	16.3	17.6	17.6	17.6	16.3	16.3
80°	123.4	39.3	17.6	13.6	13.6	13.6	13.6	14.9	16.3	14.9	14.9
82.5°	50.2	21.7	12.2	10.8	10.8	10.8	10.8	12.2	13.6	13.6	13.6
85°	31.2	10.8	9.5	9.5	9.5	8.1	8.1	9.5	9.5	10.8	10.8
87.5°	19.0	8.1	8.1	8.1	8.1	6.8	6.8	6.8	6.8	6.8	6.8
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

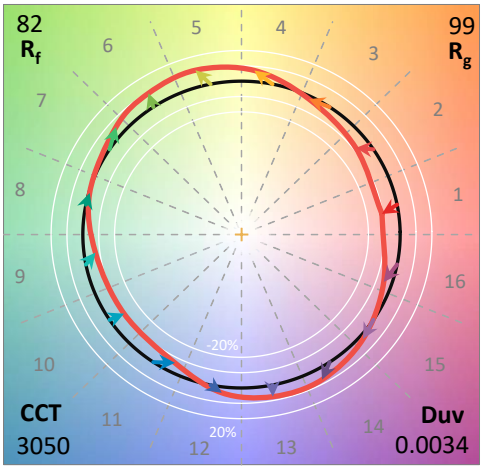
Test Information

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

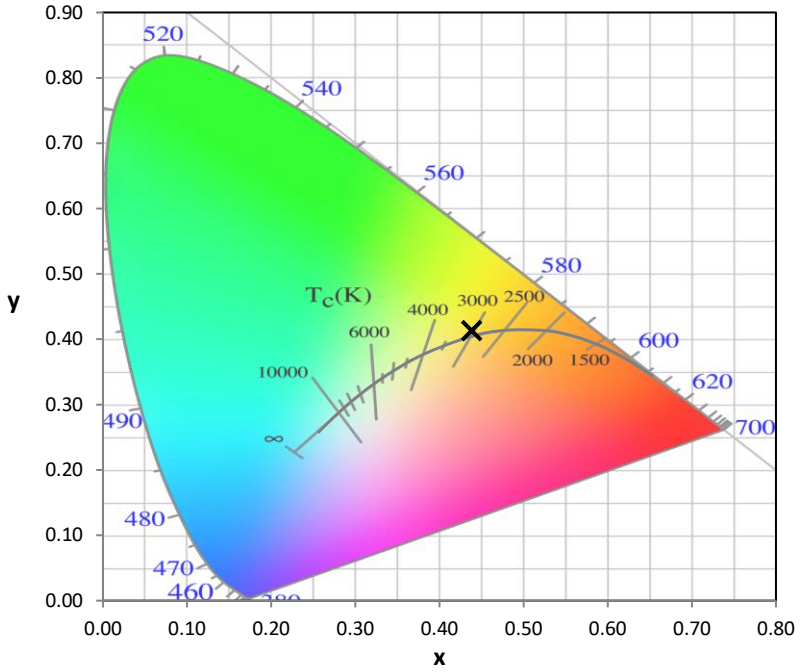
Stabilization Time:	20M
Operation Time:	1H 20M
Sphere Temperature (°C):	24.2

REPORT NUMBER: SP1-2408-195-9

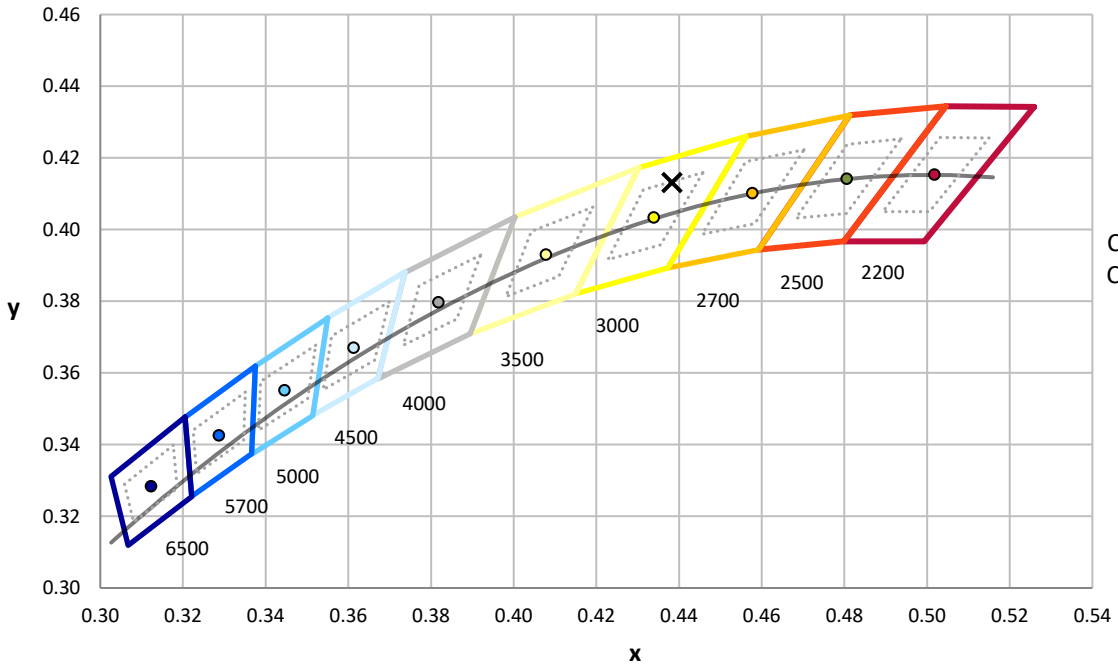
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

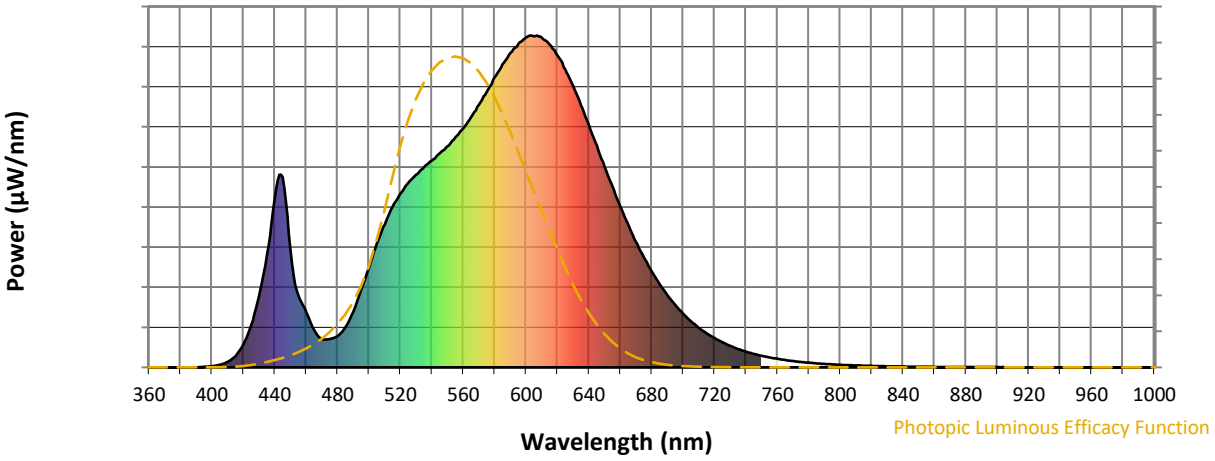


CCT = 3050K
CIE x = 0.4383
CIE y = 0.4131
Duv = 0.0034

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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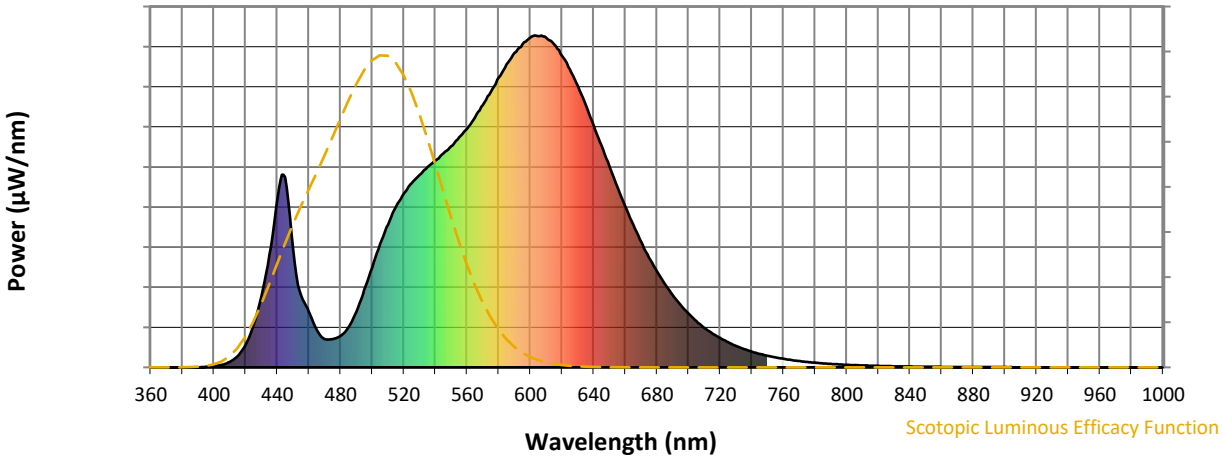
Scotopic Flux vs. Wavelength



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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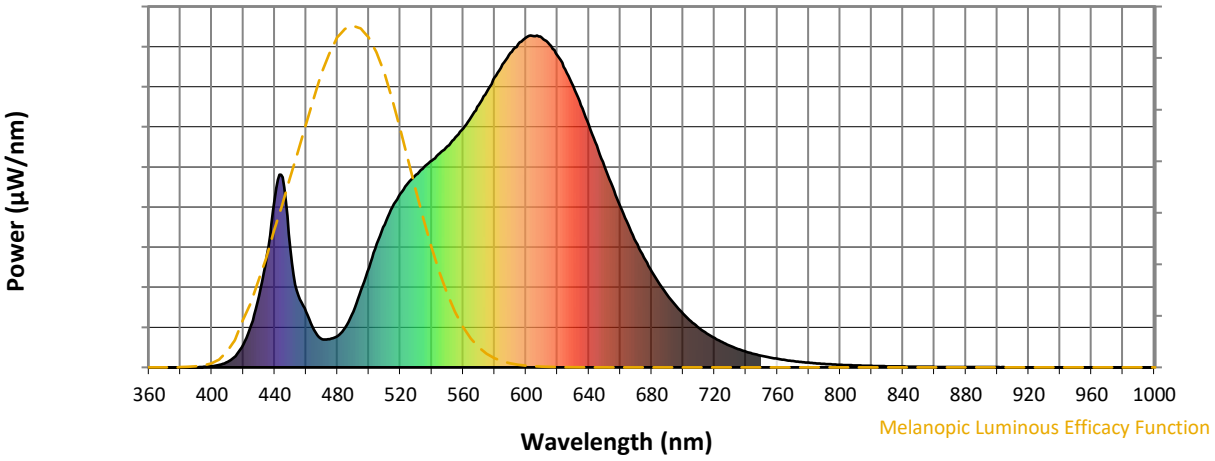
Melanopic Flux vs. Wavelength



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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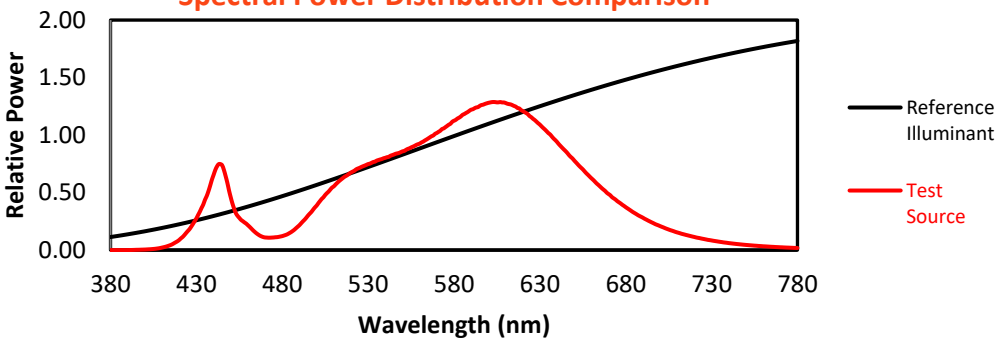
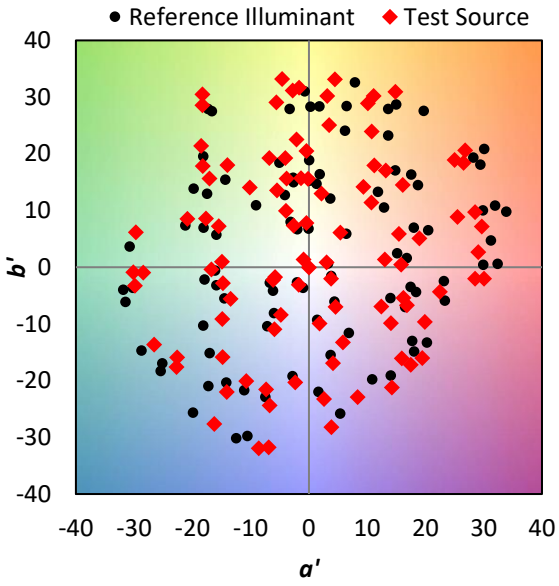
Summary

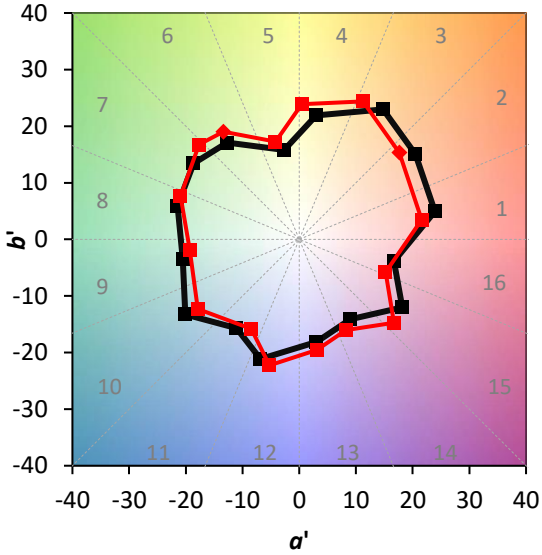
R_f = 81.5
R_g = 99.2
CIE R_a = 81.0
R_9 = 7.1

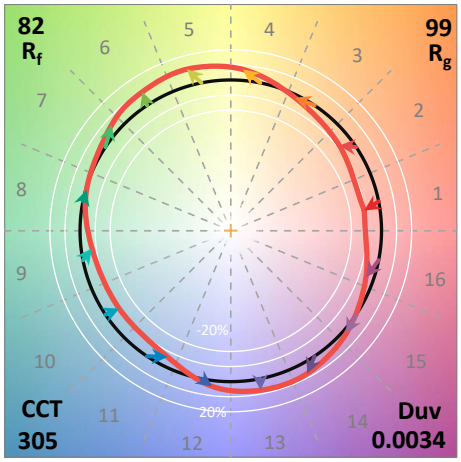
Spectral Power Distribution Comparison

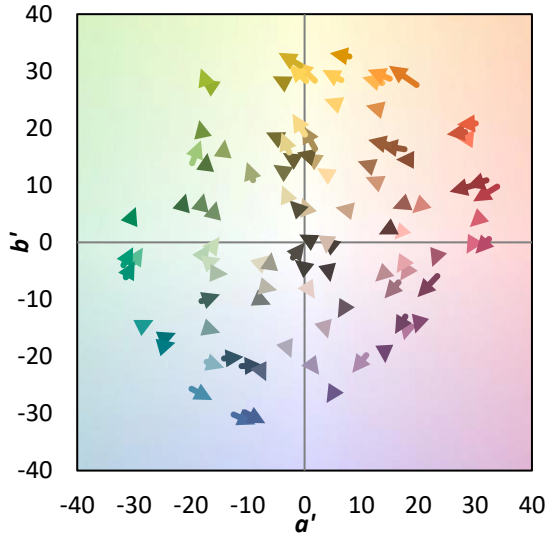


Color Vector Graphics









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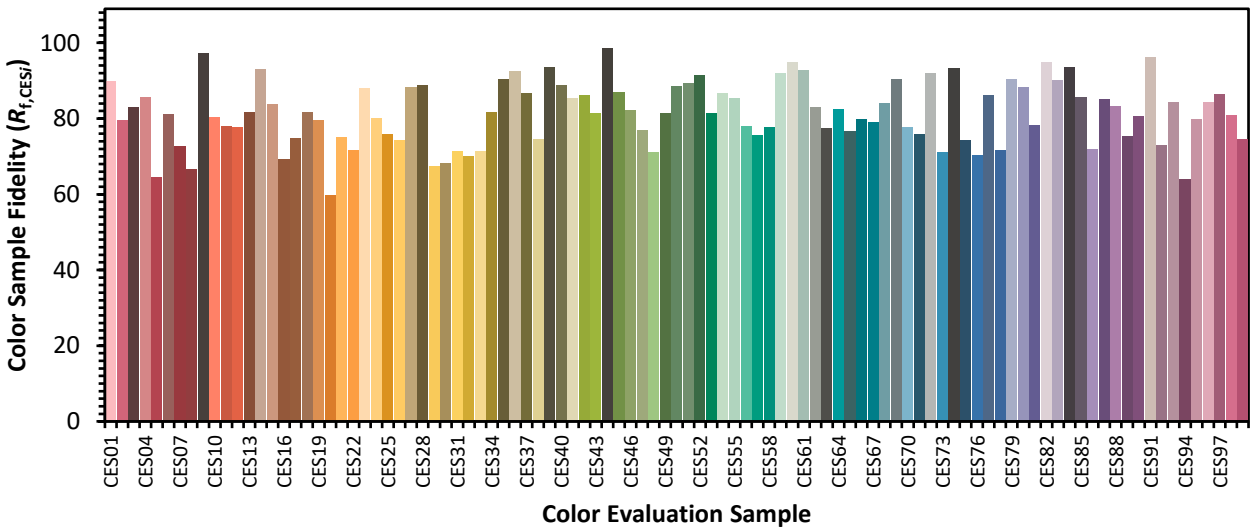
Individual Sample Fidelity Index ($R_{f,i}$)

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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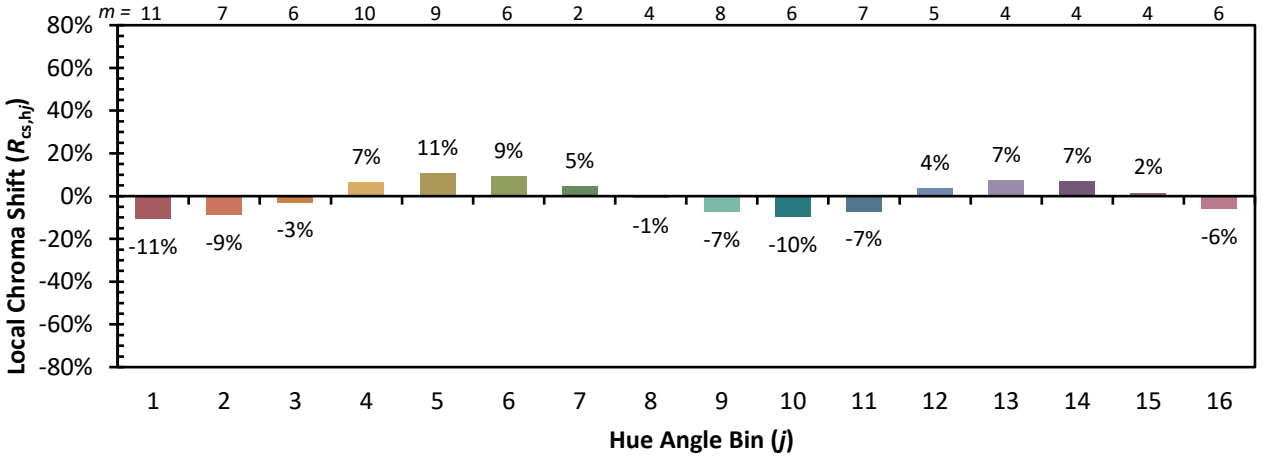
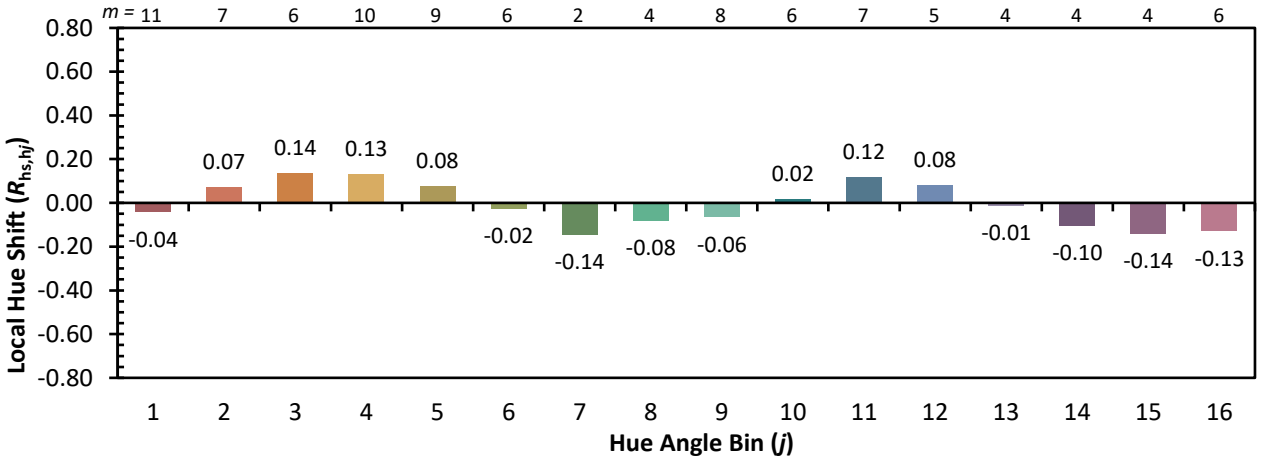
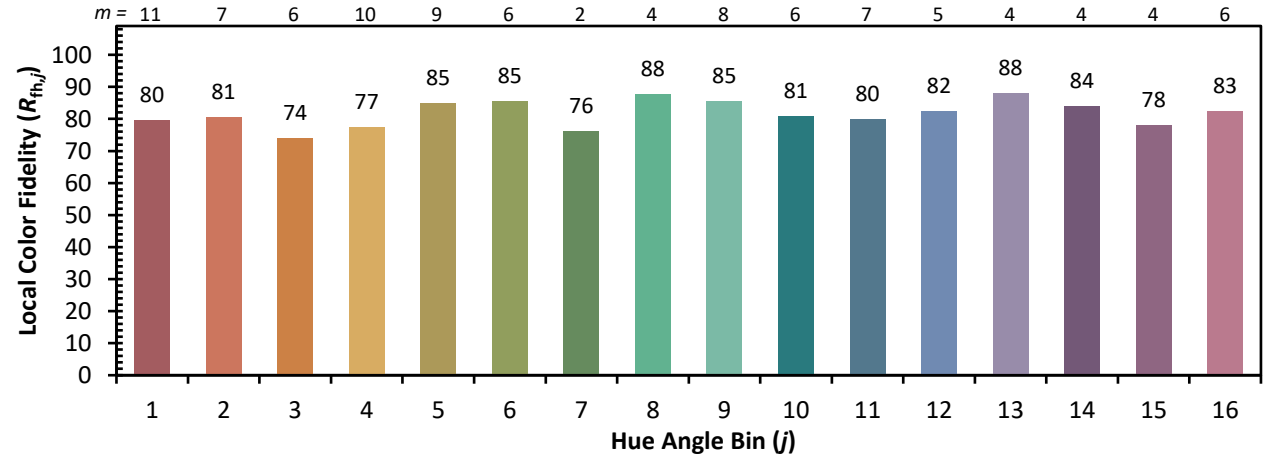
Color Rendition by Hue-Angle Bin







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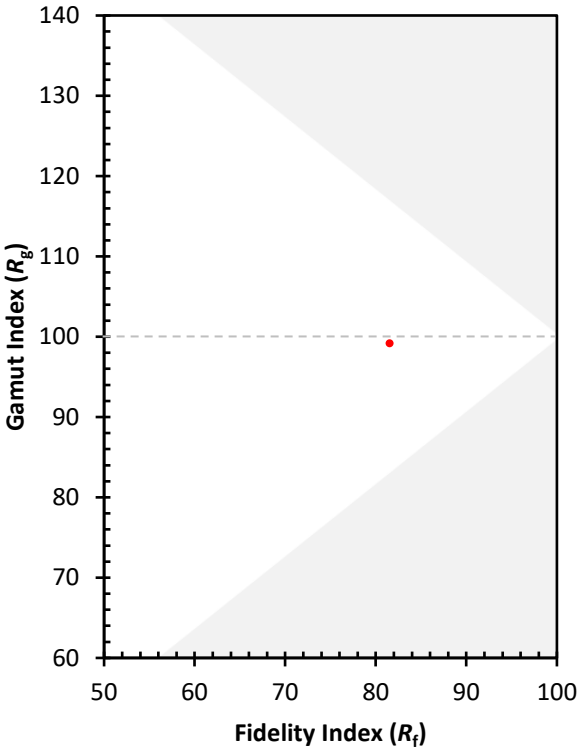
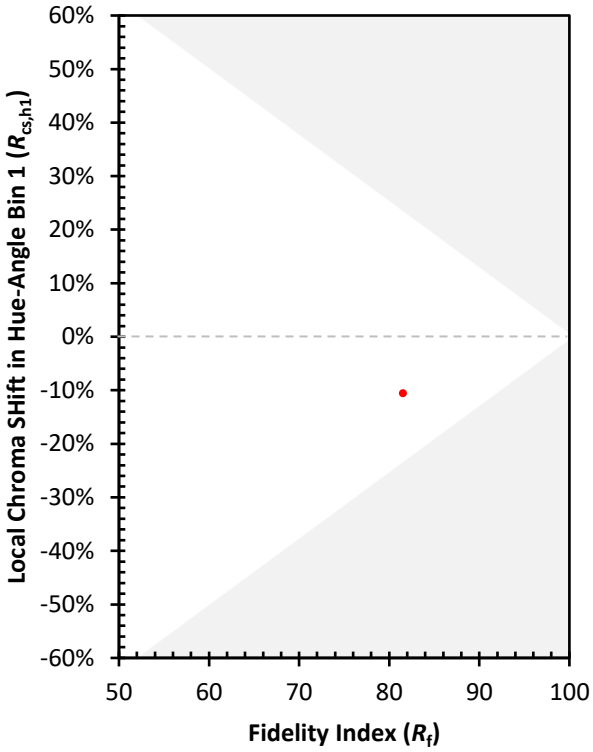
Measure Comparisons





(END OF REPORT)