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: P640476

Luminaire Tested: GWS-SA5D-830-U-T3-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:	P640476
	TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-24)
Test Lab:	COOPER LIGHTING SOLUTIONS
Issue Date:	1/10/2023
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	McGRAW-EDISON
Catalog Number:	GWS-SA5D-830-U-T3-W-GRSBK
Description:	GALLEON WALL SLIM LUMINAIRE. (5) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III OPTICS W/ FACTORY INSTALLED GLARE SHIELD, BK
Light Source:	(80) 3000K CCT, 80 CRI LEDS
Ballast/Driver:	-

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	14736.4 lumens
Efficiency:	N/A
Efficacy:	72.0 lumens/watt
Luminous Opening:	Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification:	Type II - Short
BUG Rating:	B3 - U0 - G1

Input Watts (W):	204.6
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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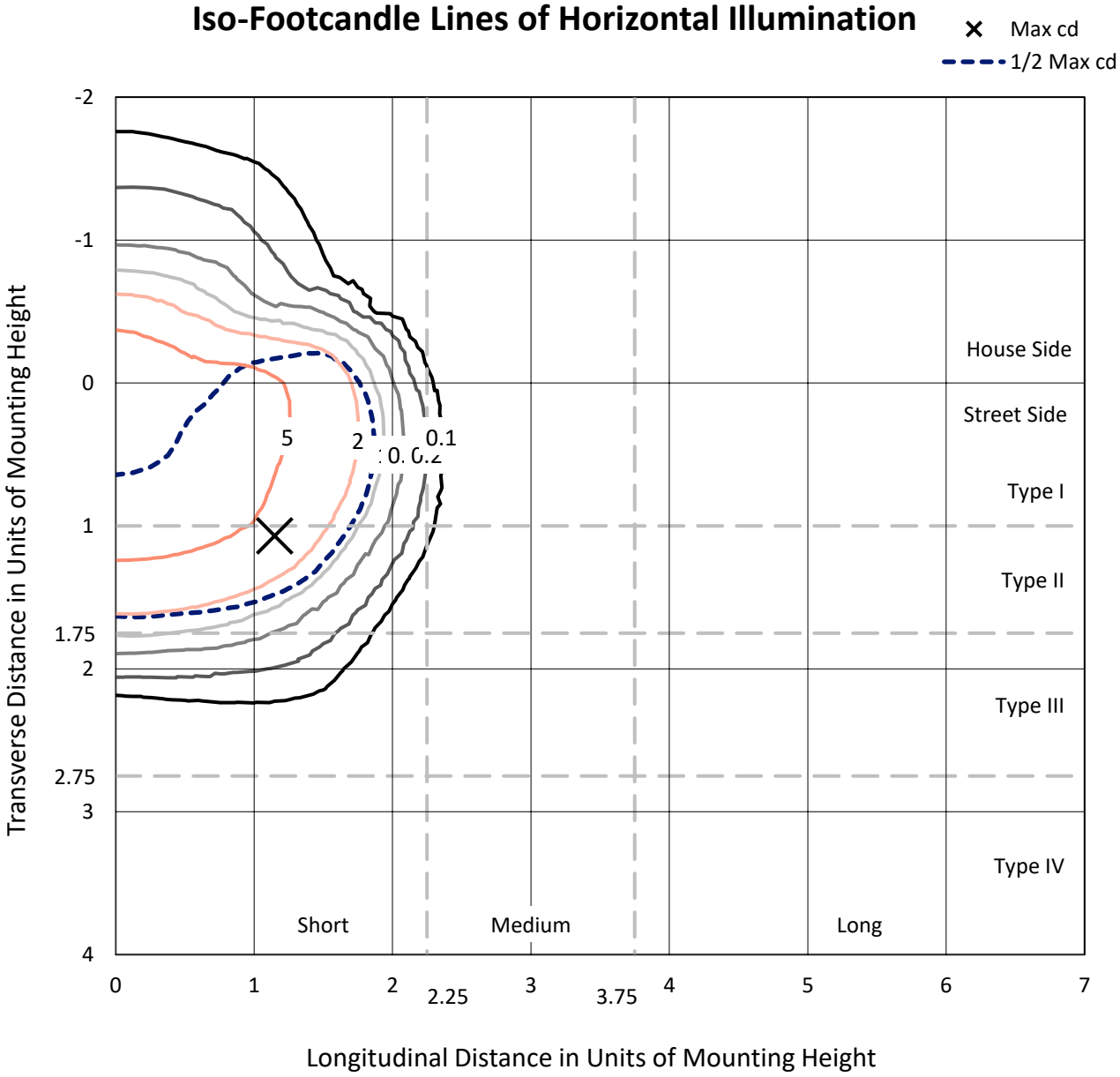
Scaled Data Report

REPORT NUMBER: P640476
CATALOG NUMBER: GWS-SA5D-830-U-T3-W-GRSBK

Iso-Footcandle Lines of Horizontal Illumination



Based on 20 foot mounting height. Maximum calculated value = 8.7 fc
Type II - Short - N/A

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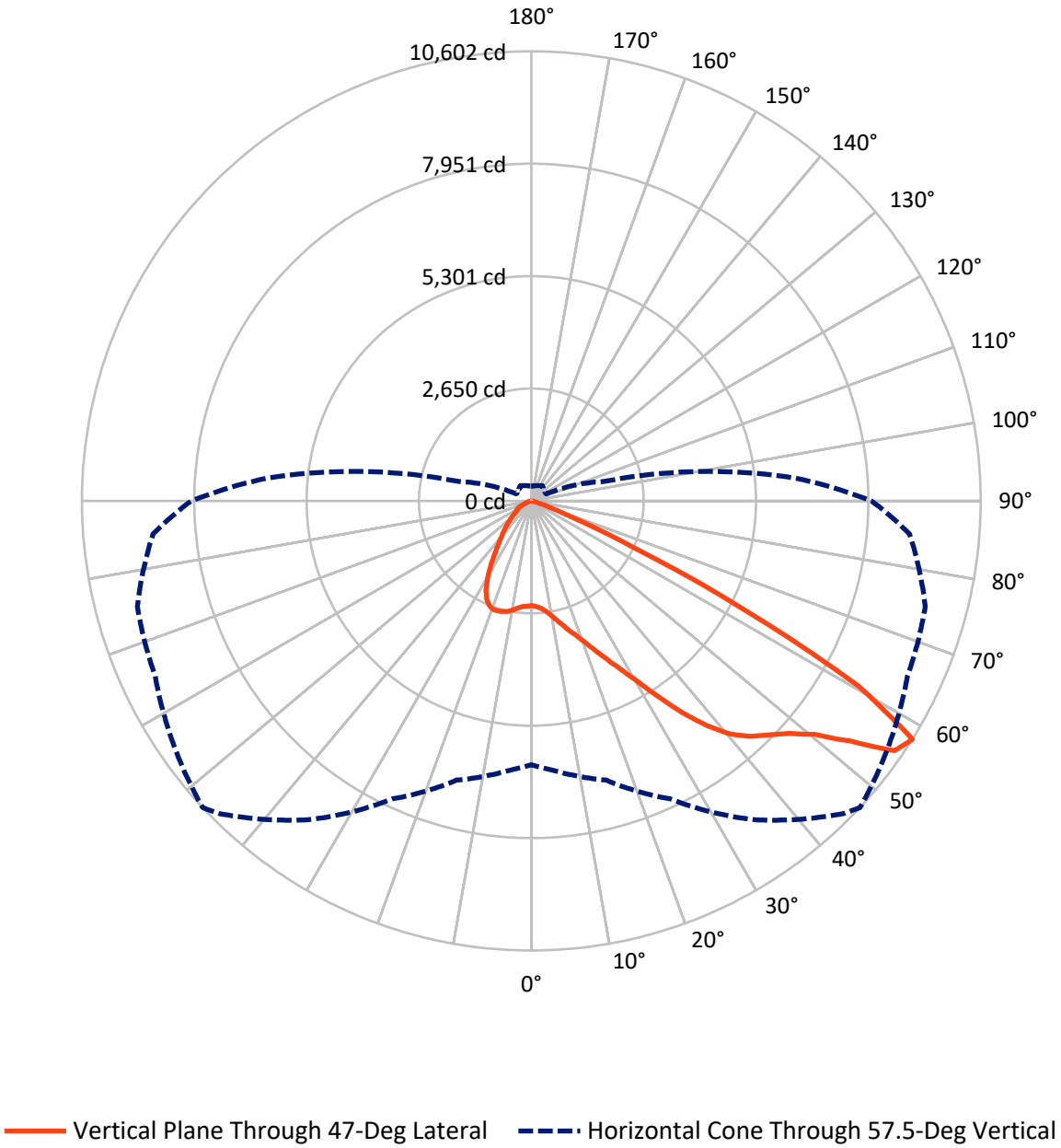
Luminous Intensity Polar Plot



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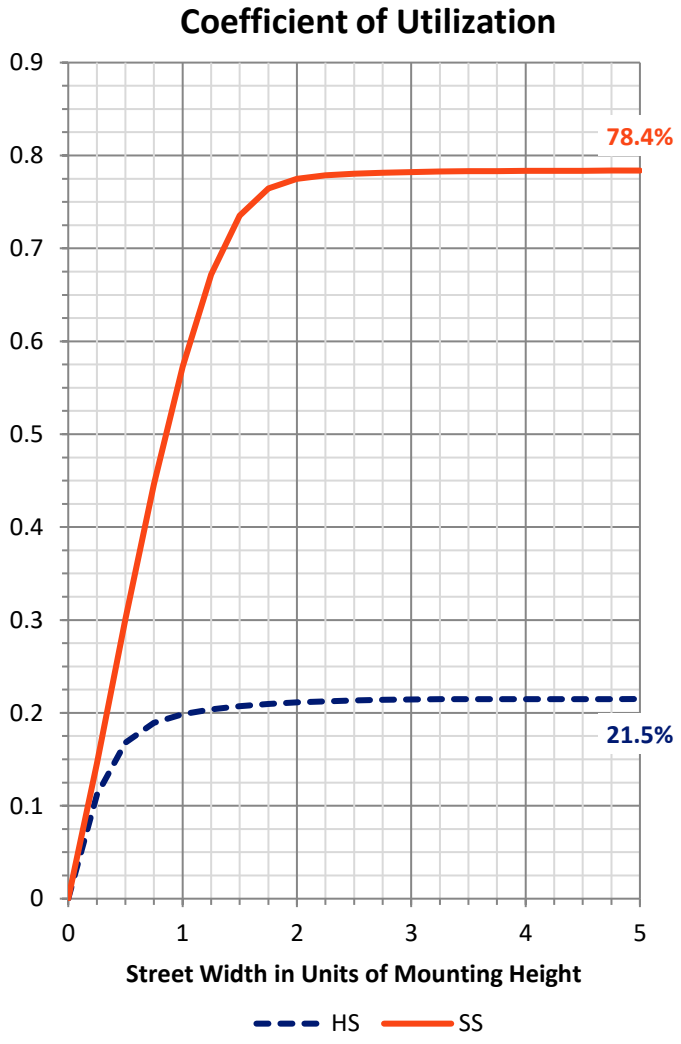
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3197.0	0.0	3197.0
	% Fixture	21.7	0.0	21.7
Street Side	Lumens	11539.3	0.0	11539.3
	% Fixture	78.3	0.0	78.3
Total	Lumens	14736.4	0.0	14736.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	245.4	1.7
10°-20°	828.1	5.6
20°-30°	1537.6	10.4
30°-40°	2461.5	16.7
40°-50°	3598.1	24.4
50°-60°	4440.7	30.1
60°-70°	1483.8	10.1
70°-80°	138.3	0.9
80°-90°	2.9	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°	14736.4	100.0
0°-180°	14736.4	100.0



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REPORT NUMBER: P640476
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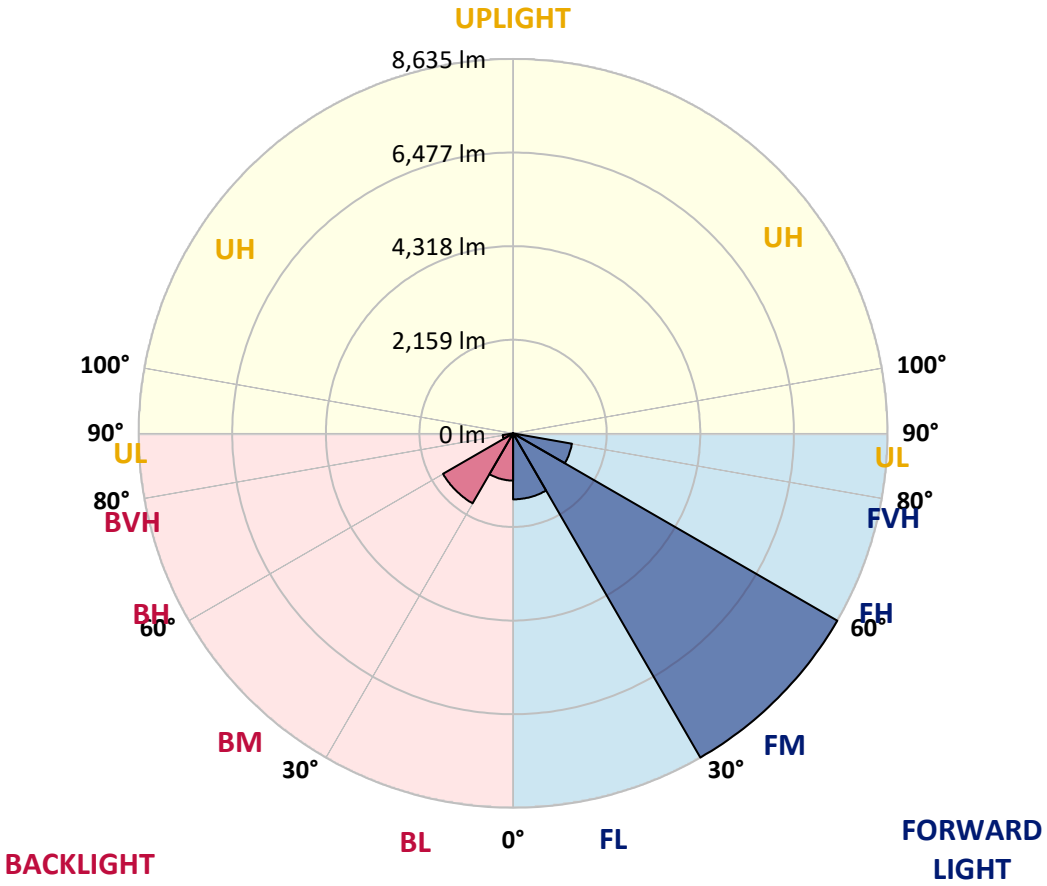
LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	1523.0	10.3			
FM	(30°-60°)	8635.4	58.6			
FH	(60°-80°)	1379.0	9.4			G1/1800
FVH	(80°-90°)	2.0	0.0			G0/10
BL	(0°-30°)	1088.2	7.4	B3/2500		
BM	(30°-60°)	1864.8	12.7	B2/2500		
BH	(60°-80°)	243.1	1.6	B1/500		G1/500
BVH	(80°-90°)	0.9	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G1
Type II Short



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REPORT NUMBER: P640476
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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	47°	55°	65°	75°	85°
0°	2466.9	2466.9	2466.9	2466.9	2466.9	2466.9	*2466.9*	2466.9	2466.9	2466.9	2466.9
2.5°	2492.6	2490.8	2489.1	2499.4	2496.0	2494.3	*2497.7*	2497.7	2497.7	2487.4	2466.9
5°	2552.4	2552.4	2550.7	2561.0	2552.4	2547.3	*2549.0*	2549.0	2542.2	2523.3	2497.7
7.5°	2646.5	2643.1	2639.7	2649.9	2641.4	2639.7	*2643.1*	2632.8	2620.9	2590.1	2554.1
10°	2781.7	2781.7	2776.5	2786.8	2780.0	2776.5	*2776.5*	2769.7	2747.5	2699.6	2646.5
12.5°	2968.1	2959.6	2947.6	2939.1	2935.6	2933.9	*2935.6*	2925.4	2901.4	2839.8	2766.3
15°	3171.7	3164.9	3146.1	3132.4	3113.5	3110.1	*3120.4*	3111.8	3087.9	3004.1	2899.7
17.5°	3428.3	3436.9	3389.0	3359.9	3305.2	3301.7	*3305.2*	3318.8	3301.7	3194.0	3041.7
20°	3647.3	3654.1	3618.2	3597.7	3548.1	3525.8	*3532.7*	3554.9	3536.1	3409.5	3197.4
22.5°	3881.7	3890.2	3852.6	3809.8	3787.6	3787.6	*3813.2*	3844.0	3818.4	3652.4	3375.3
25°	4162.2	4169.1	4138.3	4081.8	4042.5	4092.1	*4129.7*	4211.8	4169.1	3943.3	3585.7
27.5°	4483.9	4485.6	4441.1	4382.9	4362.4	4454.8	*4492.4*	4619.0	4601.9	4270.0	3808.1
30°	4827.7	4829.4	4819.2	4779.8	4761.0	4882.5	*4933.8*	5116.8	5104.9	4675.5	4110.9
32.5°	5185.3	5185.3	5204.1	5200.7	5222.9	5421.3	*5503.5*	5712.2	5700.2	5171.6	4487.3
35°	5544.5	5546.2	5578.7	5660.8	5753.2	6016.7	*6124.5*	6377.6	6350.3	5765.2	4968.0
37.5°	5953.4	5936.3	5980.8	6103.9	6309.2	6613.7	*6716.4*	6957.6	6926.8	6372.5	5595.8
40°	6446.1	6415.3	6415.3	6559.0	6791.6	7142.3	*7229.6*	7349.3	7245.0	6863.5	6211.7
42.5°	6990.1	6961.0	6923.4	7050.0	7245.0	7518.7	*7590.6*	7558.1	7472.5	7327.1	6913.1
45°	7540.9	7496.5	7522.1	7599.1	7712.0	7842.0	*7869.4*	7718.9	7679.5	7720.6	7493.0
47.5°	7960.1	7929.3	7992.6	8100.4	8192.7	8211.6	*8192.7*	7984.0	7980.6	8126.0	7895.1
50°	8100.4	8103.8	8278.3	8514.4	8663.2	8678.6	*8652.9*	8413.4	8380.9	8423.7	8112.3
52.5°	8114.0	8127.7	8382.6	8832.6	9238.0	9422.8	*9402.2*	9143.9	8825.7	8779.5	8440.8
55°	7783.9	7864.3	8220.1	8877.0	9739.3	10329.5	*10397.9*	9903.5	9431.3	9392.0	9147.3
57.5°	*6222.0*	*6386.2*	*6815.6*	*7751.4*	*9179.8*	*10423.5*	*10601.5*	*10245.6*	*9788.9*	*9621.2*	*8957.4*
60°	3719.2	3922.7	4335.0	5482.9	6986.7	8567.4	*8873.6*	8923.2	8712.8	8228.7	6872.0
62.5°	1596.1	1579.0	2087.1	2966.4	4155.4	5445.3	*5583.9*	5799.4	5982.5	5476.1	4170.8
65°	547.4	595.3	828.0	1337.8	2080.3	2528.5	*2651.6*	2845.0	3105.0	2562.7	1527.7
67.5°	338.7	359.3	477.3	790.4	1122.2	1105.1	*1050.4*	1019.6	992.2	679.2	419.1
70°	246.3	263.5	335.3	544.0	754.4	530.3	*460.2*	372.9	414.0	381.5	297.7
72.5°	165.9	179.6	231.0	330.2	386.6	258.3	*239.5*	272.0	328.5	313.1	242.9
75°	99.2	107.8	131.7	160.8	157.4	133.4	*135.1*	191.6	251.5	234.4	172.8
77.5°	68.4	71.9	87.2	104.4	77.0	41.1	*37.6*	53.0	85.5	85.5	58.2
80°	17.1	22.2	22.2	13.7	12.0	10.3	*10.3*	15.4	24.0	17.1	8.6
82.5°	1.7	1.7	1.7	1.7	1.7	1.7	*1.7*	3.4	3.4	3.4	3.4
85°	0.0	0.0	1.7	1.7	1.7	1.7	*1.7*	1.7	3.4	3.4	3.4
87.5°	0.0	0.0	1.7	1.7	1.7	1.7	*1.7*	1.7	1.7	3.4	3.4
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: P640476
CATALOG NUMBER: GWS-SA5D-830-U-T3-W-GRSBK

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2466.9	2466.9	2466.9	2466.9	2466.9	2466.9	2466.9	2466.9	2466.9	2466.9	2466.9
2.5°	2478.9	2458.3	2472.0	2468.6	2478.9	2482.3	2466.9	2463.5	2465.2	2444.6	2437.8
5°	2502.8	2478.9	2485.7	2478.9	2490.8	2501.1	2496.0	2502.8	2511.4	2496.0	2489.1
7.5°	2554.1	2530.2	2528.5	2518.2	2535.3	2542.2	2540.5	2559.3	2576.4	2566.1	2555.8
10°	2643.1	2610.6	2607.2	2598.6	2603.7	2608.9	2590.1	2593.5	2608.9	2596.9	2591.8
12.5°	2752.6	2713.2	2704.7	2684.2	2684.2	2658.5	2617.4	2608.9	2620.9	2612.3	2603.7
15°	2870.6	2817.6	2803.9	2768.0	2733.8	2685.9	2643.1	2632.8	2641.4	2631.1	2624.3
17.5°	3002.4	2942.5	2898.0	2834.7	2759.4	2703.0	2655.1	2632.8	2619.1	2598.6	2596.9
20°	3132.4	3053.7	2978.4	2877.5	2778.2	2692.7	2614.0	2555.8	2506.2	2475.4	2463.5
22.5°	3282.9	3166.6	3045.1	2903.1	2761.1	2631.1	2492.6	2393.3	2307.8	2278.7	2265.0
25°	3443.7	3293.2	3111.8	2927.1	2703.0	2494.3	2306.1	2159.0	2046.0	2008.4	1993.0
27.5°	3621.6	3414.6	3180.3	2921.9	2583.2	2299.2	2049.5	1866.4	1755.2	1721.0	1733.0
30°	3847.5	3572.0	3265.8	2868.9	2403.6	2025.5	1733.0	1579.0	1495.2	1462.7	1464.4
32.5°	4148.5	3797.8	3390.7	2756.0	2172.6	1714.2	1457.6	1344.6	1288.2	1245.4	1242.0
35°	4579.7	4141.7	3507.0	2574.7	1892.1	1437.0	1250.6	1161.6	1082.9	1033.3	1041.8
37.5°	5096.3	4574.5	3570.3	2330.0	1577.3	1221.5	1094.9	1004.2	915.2	841.7	850.2
40°	5708.7	5140.8	3565.2	2008.4	1289.9	1074.3	964.9	858.8	747.6	680.9	687.7
42.5°	6391.3	5676.2	3454.0	1668.0	1069.2	954.6	840.0	706.5	598.8	557.7	559.4
45°	6983.2	6110.8	3259.0	1315.6	899.9	838.3	710.0	573.1	525.2	496.1	494.4
47.5°	7421.2	6429.0	2980.1	1035.0	763.0	732.2	583.4	513.2	475.6	451.6	448.2
50°	7665.8	6540.2	2672.2	810.9	644.9	621.0	521.8	465.3	439.7	424.3	420.8
52.5°	7994.3	6673.6	2451.5	639.8	540.6	508.1	480.7	432.8	415.7	403.7	398.6
55°	8514.4	6931.9	2259.9	508.1	449.9	443.1	453.3	414.0	403.7	384.9	378.1
57.5°	*8025.1*	*6227.1*	*1755.2*	*393.5*	*379.8*	*405.4*	*437.9*	*395.2*	*369.5*	*352.4*	*345.6*
60°	5647.2	4140.0	882.7	316.5	338.7	379.8	412.3	357.5	331.9	335.3	331.9
62.5°	3113.5	2071.7	396.9	265.2	294.2	335.3	352.4	309.6	292.5	321.6	326.8
65°	1017.9	704.8	229.2	205.3	232.7	273.7	304.5	294.2	290.8	325.0	335.3
67.5°	313.1	232.7	155.7	147.1	160.8	201.9	256.6	318.2	342.1	352.4	357.5
70°	234.4	183.0	133.4	124.9	131.7	154.0	217.3	265.2	249.8	251.5	248.1
72.5°	188.2	145.4	114.6	109.5	109.5	106.1	114.6	143.7	162.5	171.1	171.1
75°	131.7	102.6	87.2	80.4	63.3	51.3	46.2	46.2	41.1	39.3	37.6
77.5°	44.5	37.6	34.2	27.4	18.8	15.4	13.7	12.0	8.6	5.1	3.4
80°	6.8	5.1	3.4	3.4	3.4	1.7	1.7	1.7	0.0	0.0	0.0
82.5°	3.4	3.4	3.4	3.4	3.4	1.7	1.7	0.0	0.0	0.0	0.0
85°	3.4	3.4	3.4	3.4	3.4	1.7	1.7	0.0	0.0	0.0	0.0
87.5°	3.4	3.4	3.4	3.4	1.7	1.7	1.7	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

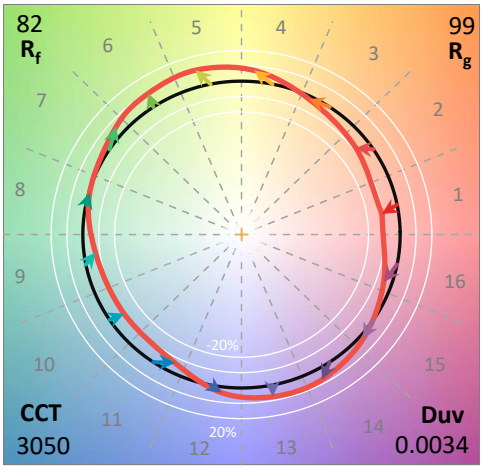
Test Information

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

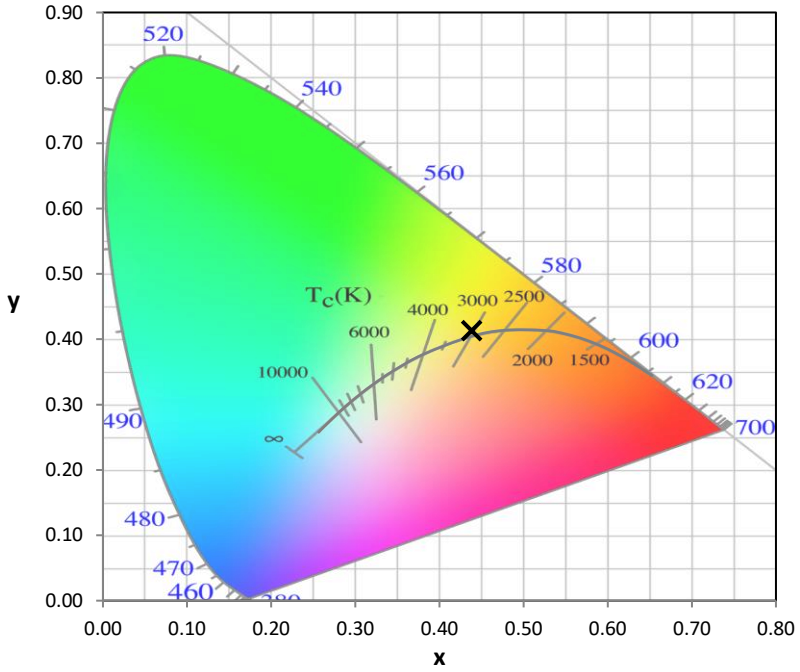
Stabilization Time:	20M
Operation Time:	1H 20M
Sphere Temperature (°C):	24.2

REPORT NUMBER: SP1-2408-195-9

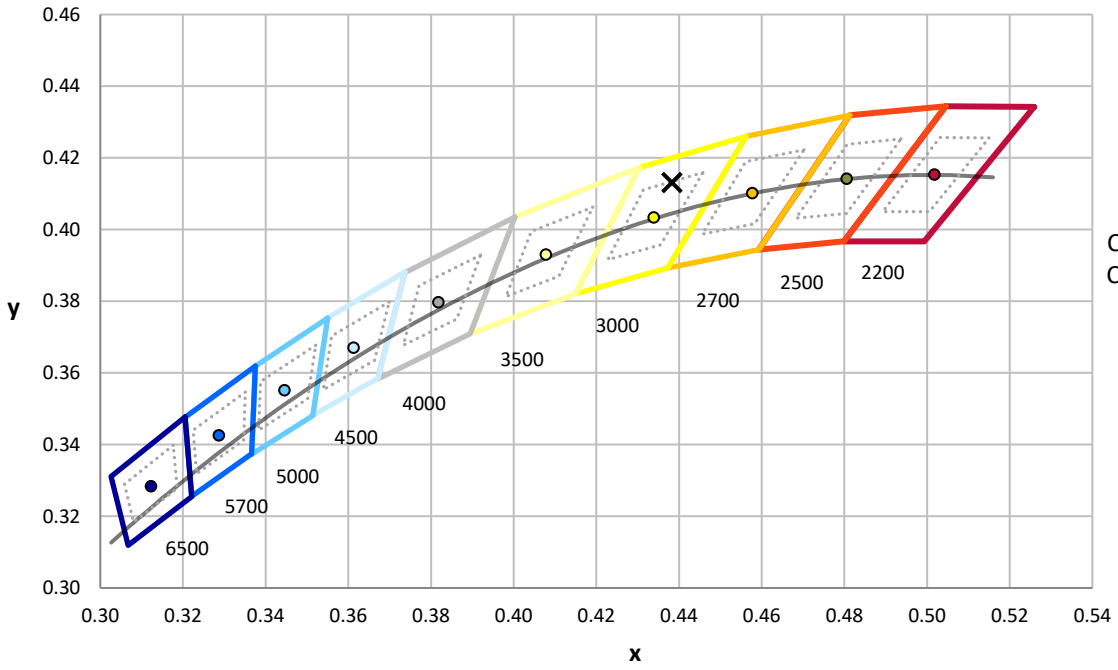
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

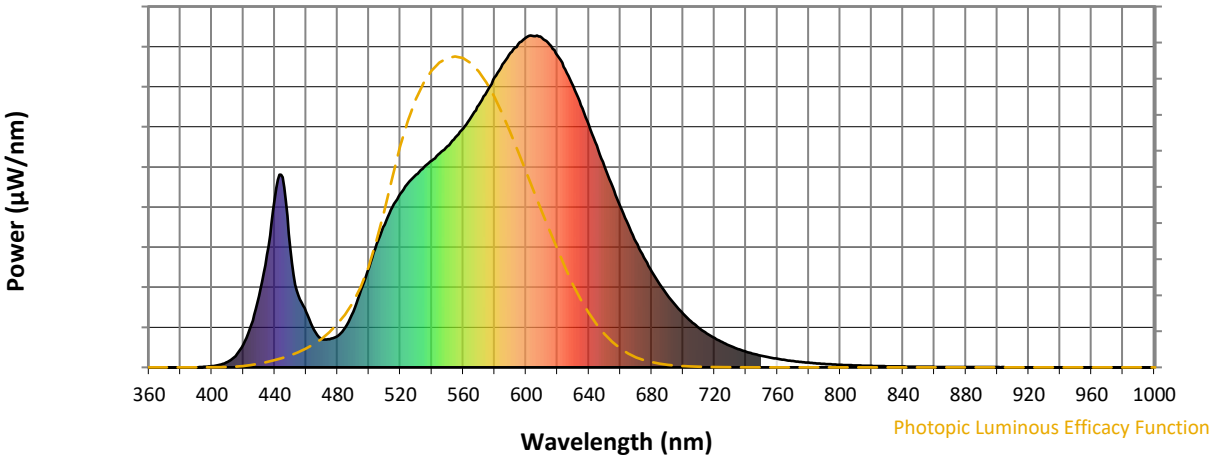


CCT = 3050K
CIE x = 0.4383
CIE y = 0.4131
Duv = 0.0034

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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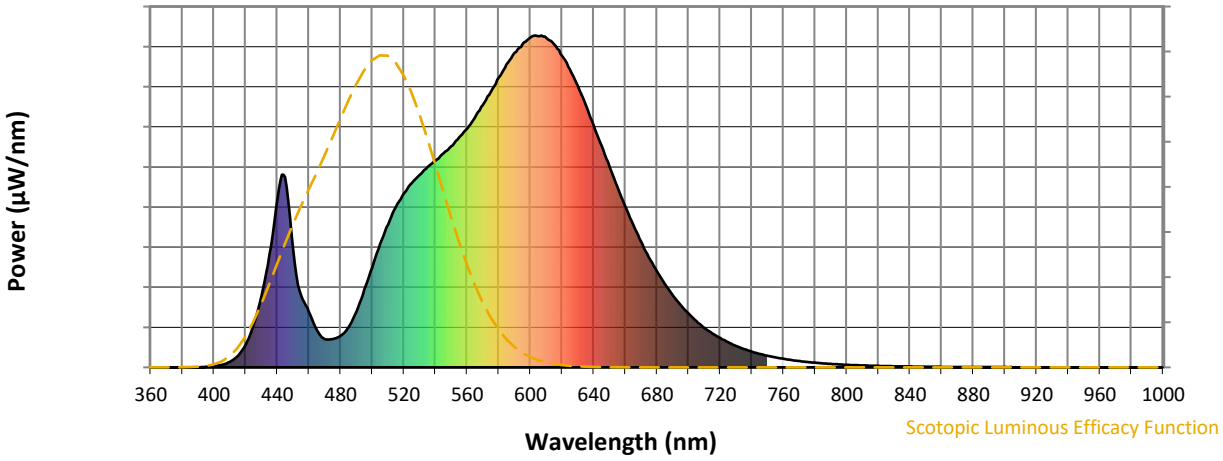
Scotopic Flux vs. Wavelength



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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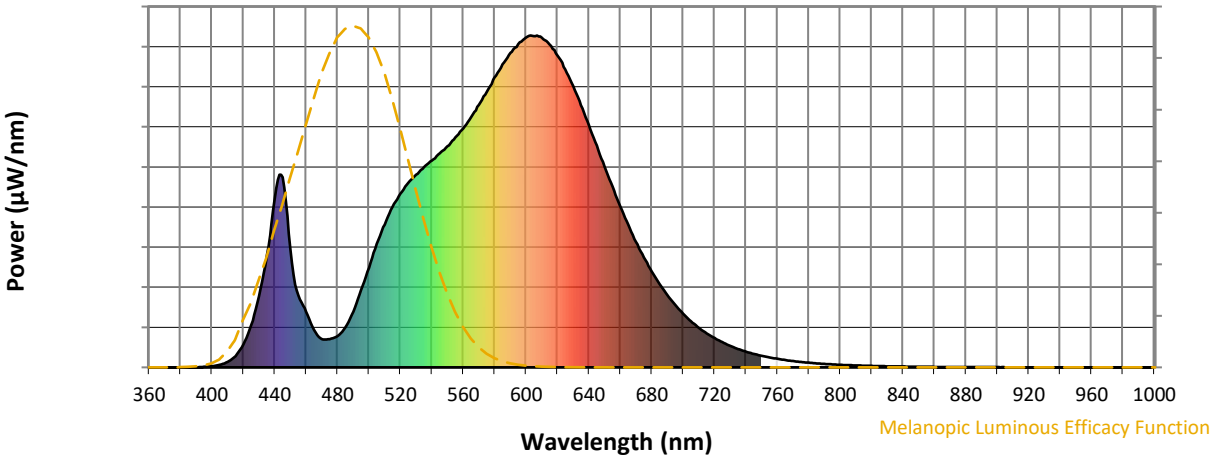
Melanopic Flux vs. Wavelength



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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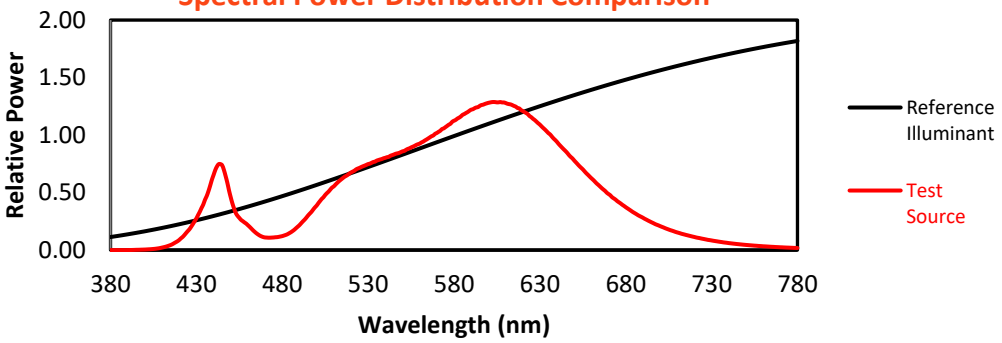
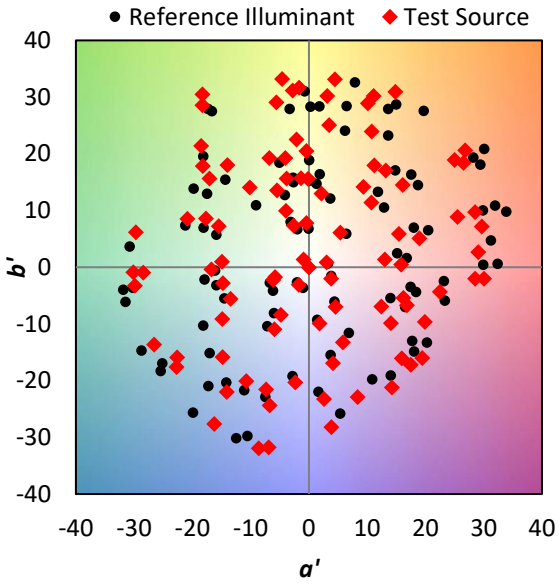
Summary

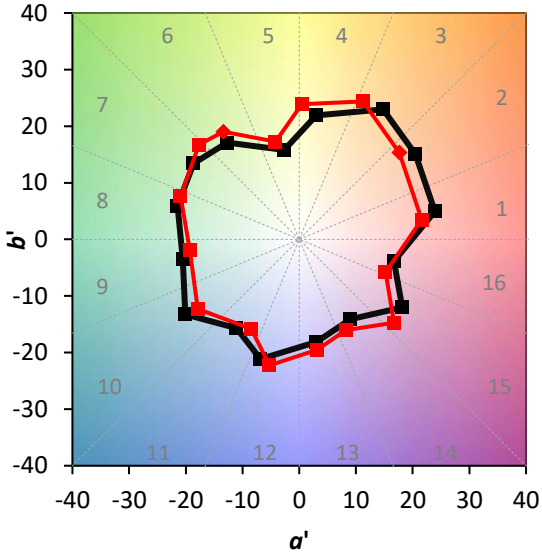
R_f = 81.5
R_g = 99.2
CIE R_a = 81.0
R_9 = 7.1

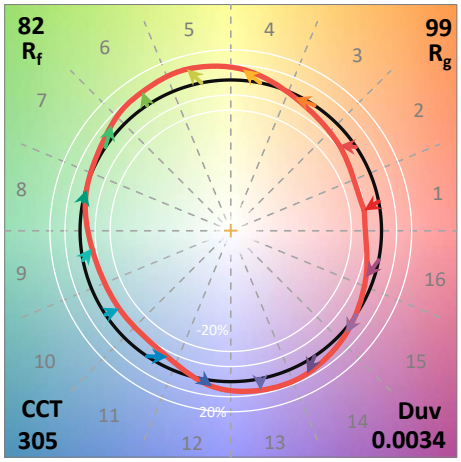
Spectral Power Distribution Comparison

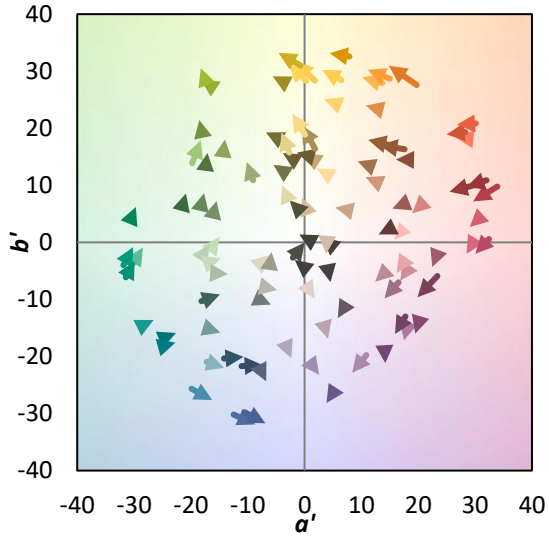


Color Vector Graphics









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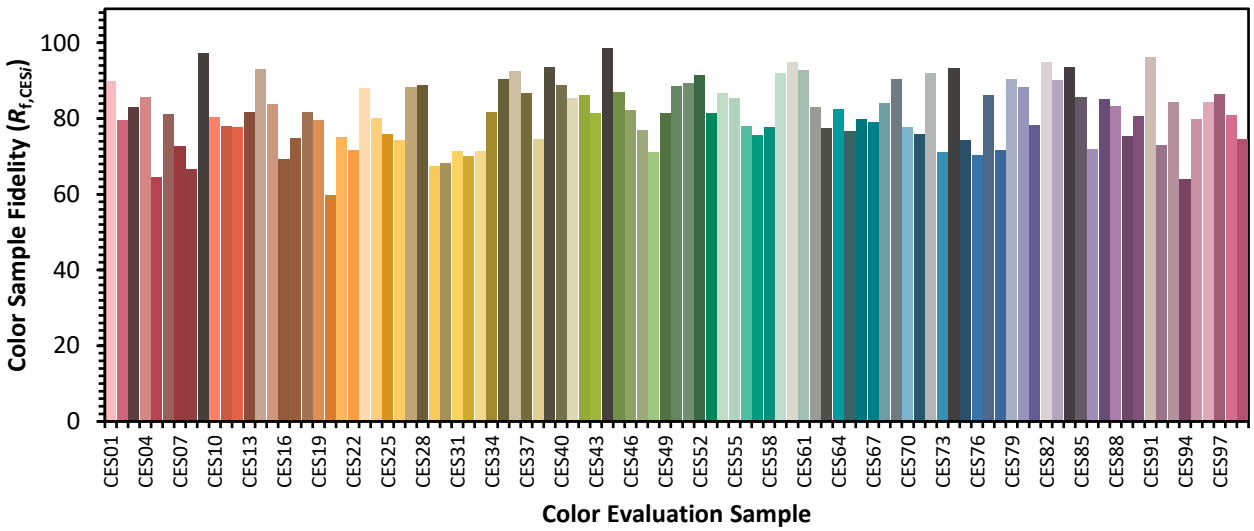
Individual Sample Fidelity Index ($R_{f,i}$)

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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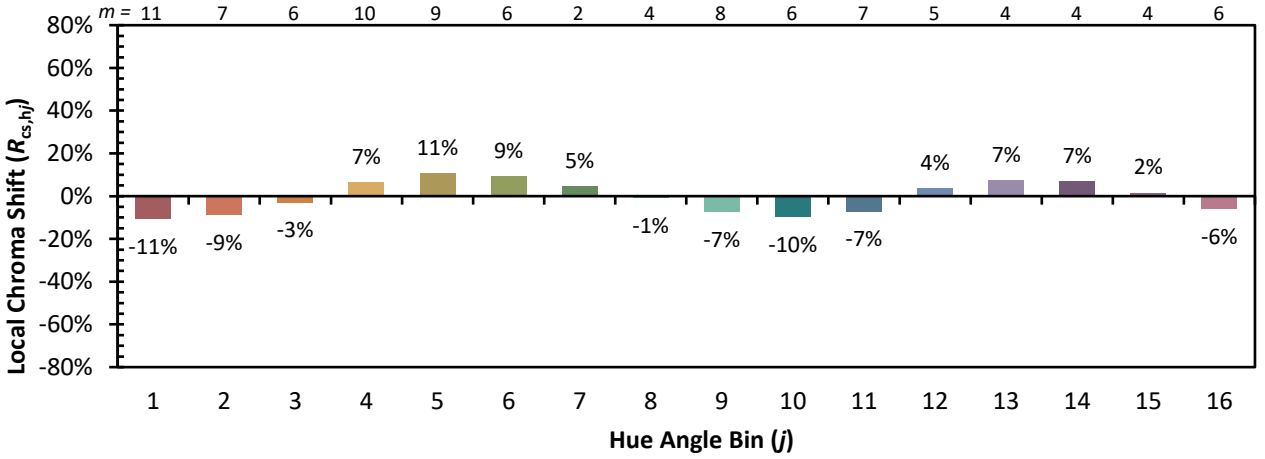
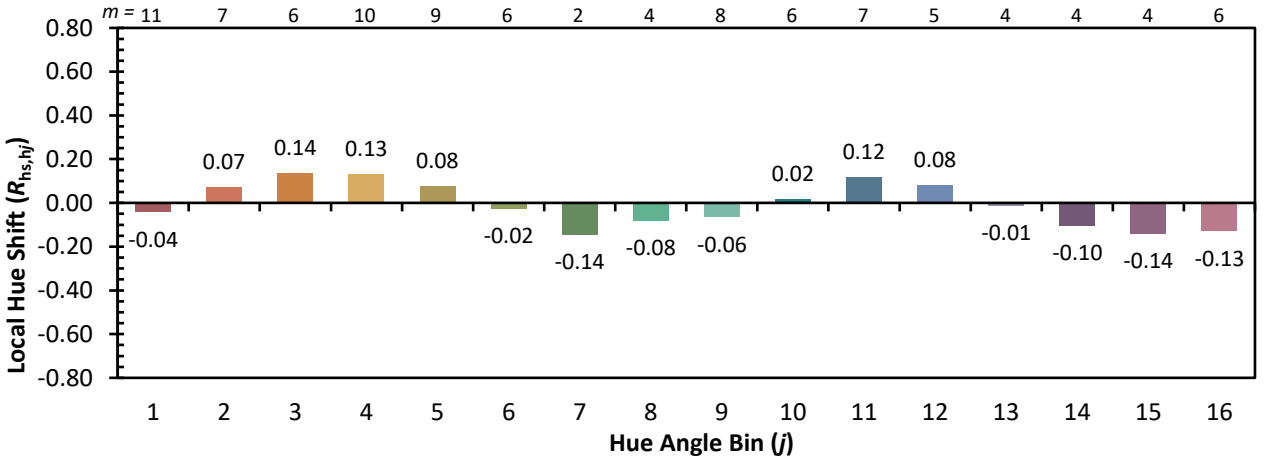
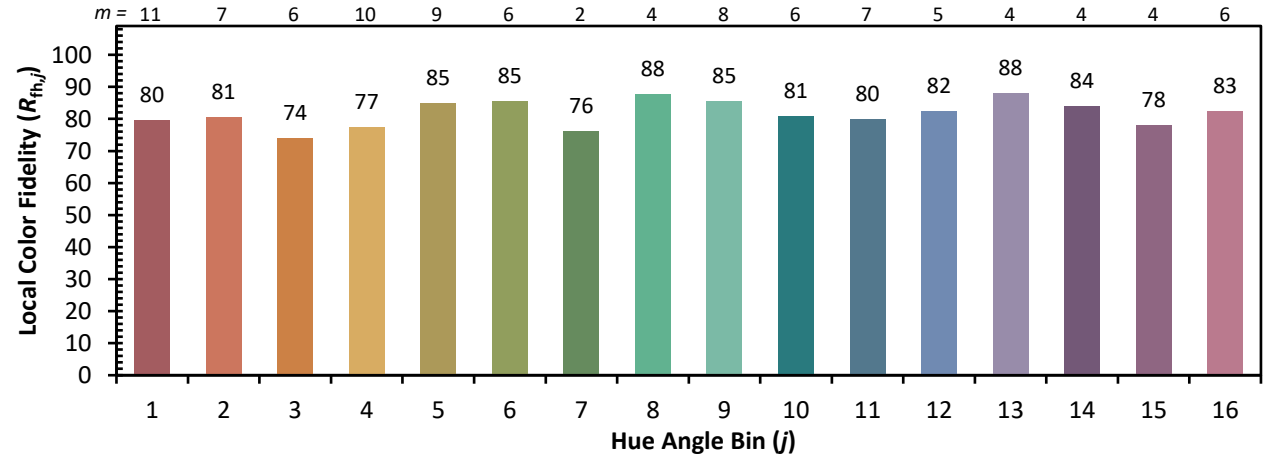
Color Rendition by Hue-Angle Bin







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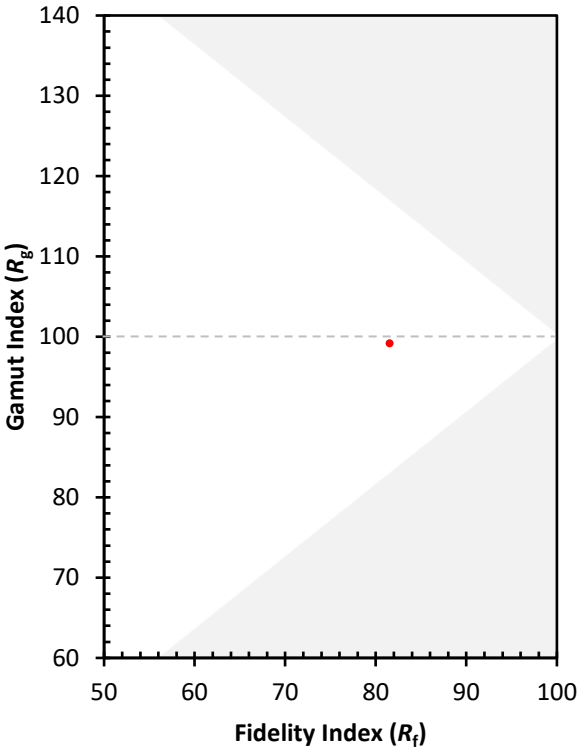
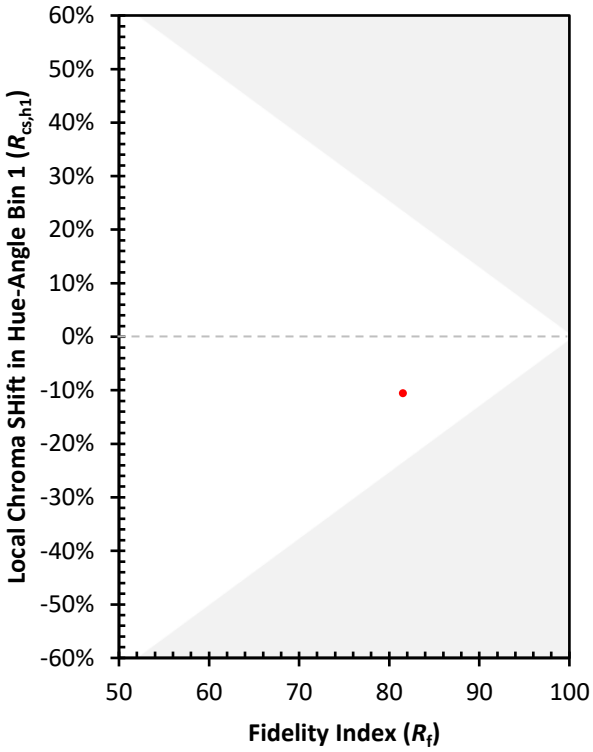
Measure Comparisons





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