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: P638007

Luminaire Tested: GWS-SA4D-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:	P638007
	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-SA4D-830-U-T3R-W-HSS
Description:	GALLEON WALL SLIM LUMINAIRE. (4) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III ROADWAY OPTICS WITH HOUSE SIDE SHIELD
Light Source:	(64) 3000K CCT, 80 CRI LEDS
Ballast/Driver:	-

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	15228.9 lumens
Efficiency:	N/A
Efficacy:	93.9 lumens/watt
Luminous Opening:	Rectangular (W 1' x L: 1' x H: 0')
IES Classification:	Type III - Medium
BUG Rating:	B2 - U0 - G3

Input Watts (W):	162.1
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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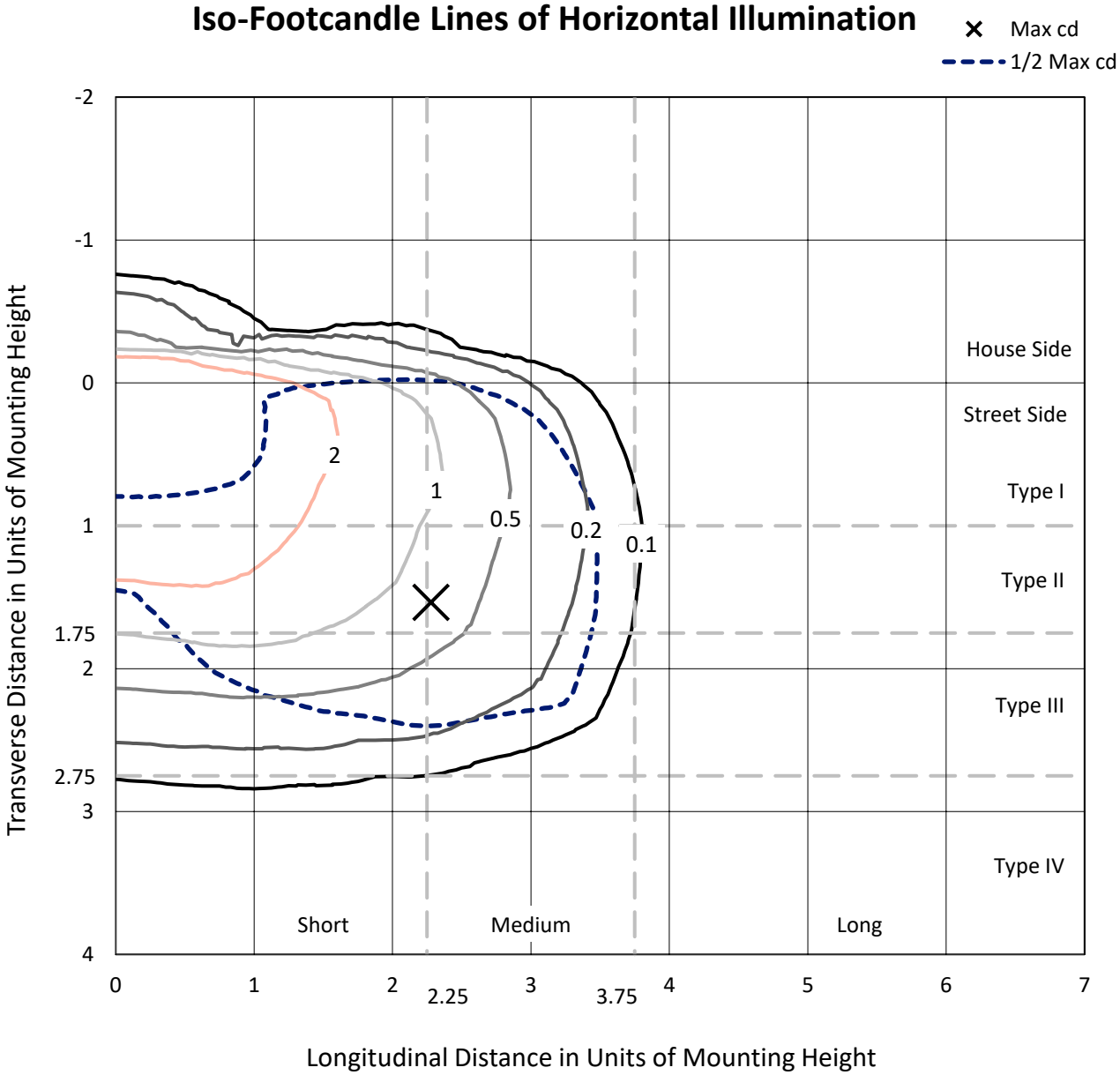
Scaled Data Report

REPORT NUMBER: P638007
CATALOG NUMBER: GWS-SA4D-830-U-T3R-W-HSS

Iso-Footcandle Lines of Horizontal Illumination



Based on 25 foot mounting height. Maximum calculated value = 4.6 fc
Type III - Medium - N/A

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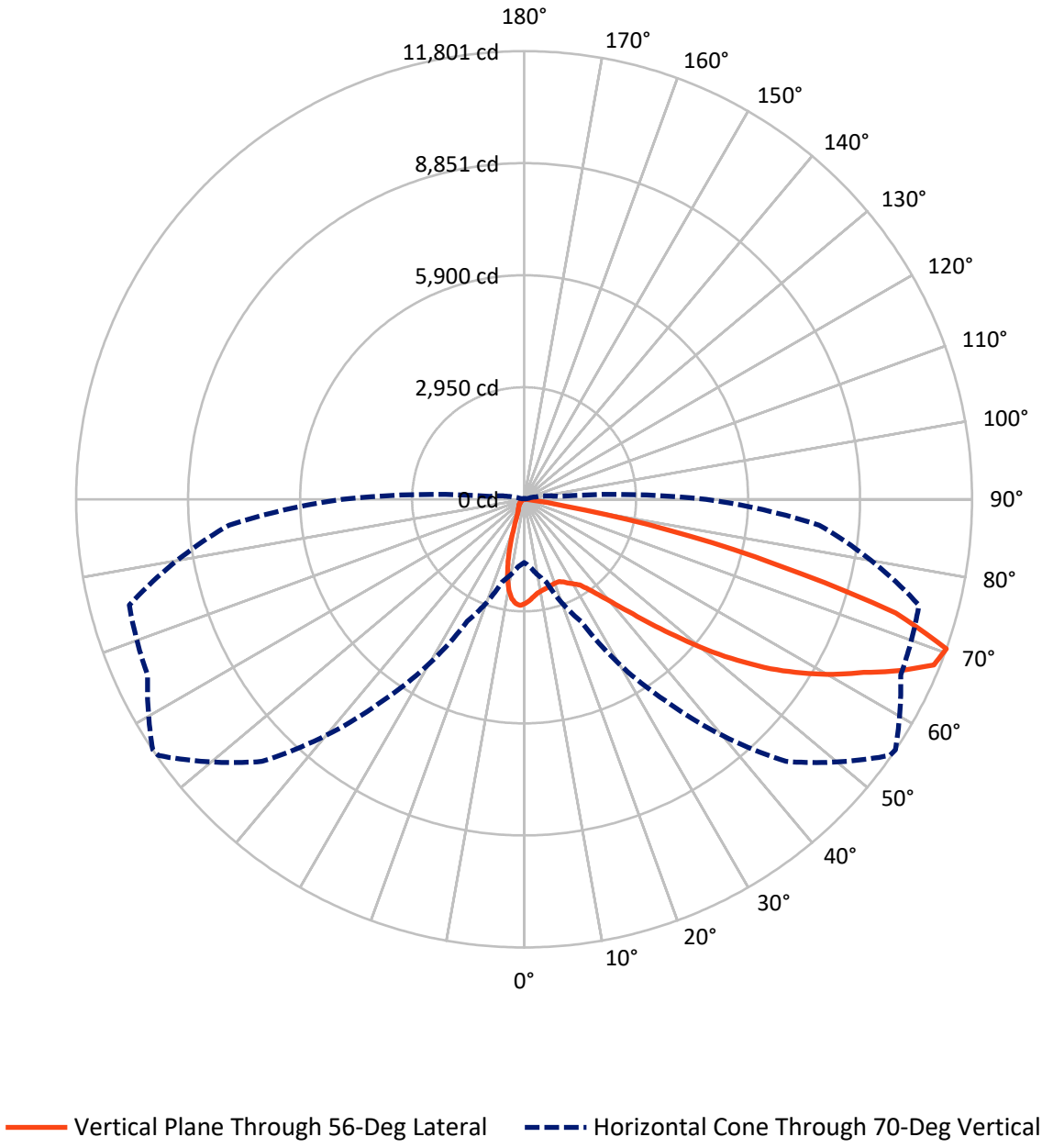
Luminous Intensity Polar Plot



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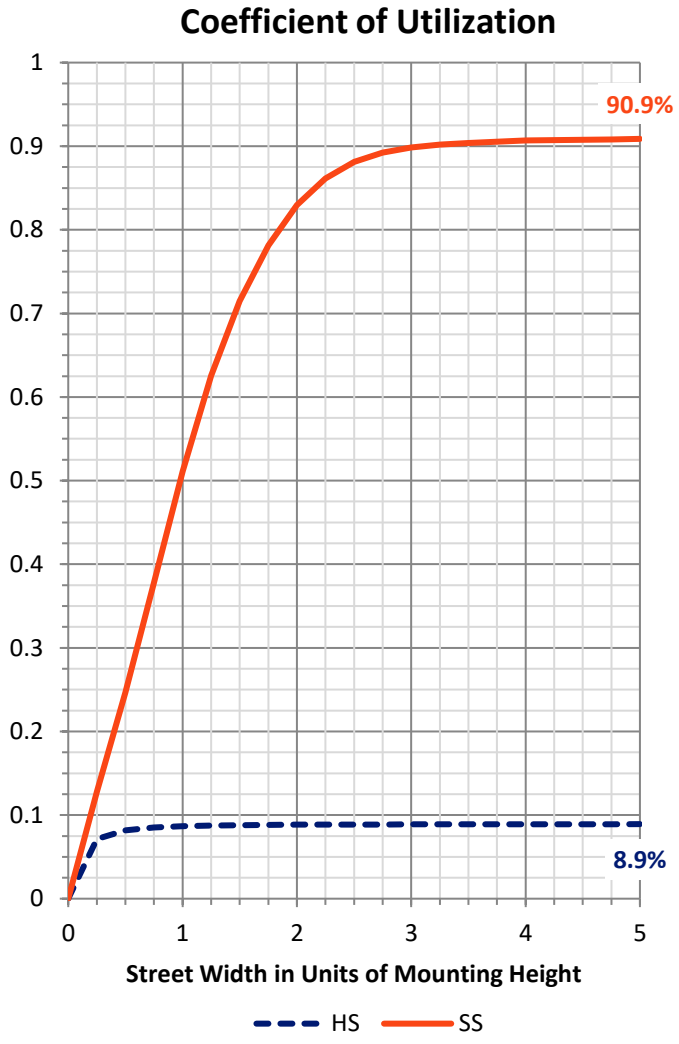
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1367.9	0.0	1367.9
	% Fixture	9.0	0.0	9.0
Street Side	Lumens	13861.0	0.0	13861.0
	% Fixture	91.0	0.0	91.0
Total	Lumens	15228.9	0.0	15228.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	235.8	1.5
10°-20°	530.3	3.5
20°-30°	839.9	5.5
30°-40°	1448.4	9.5
40°-50°	2445.9	16.1
50°-60°	3593.9	23.6
60°-70°	4260.7	28.0
70°-80°	1816.9	11.9
80°-90°	57.1	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°	15228.9	100.0
0°-180°	15228.9	100.0



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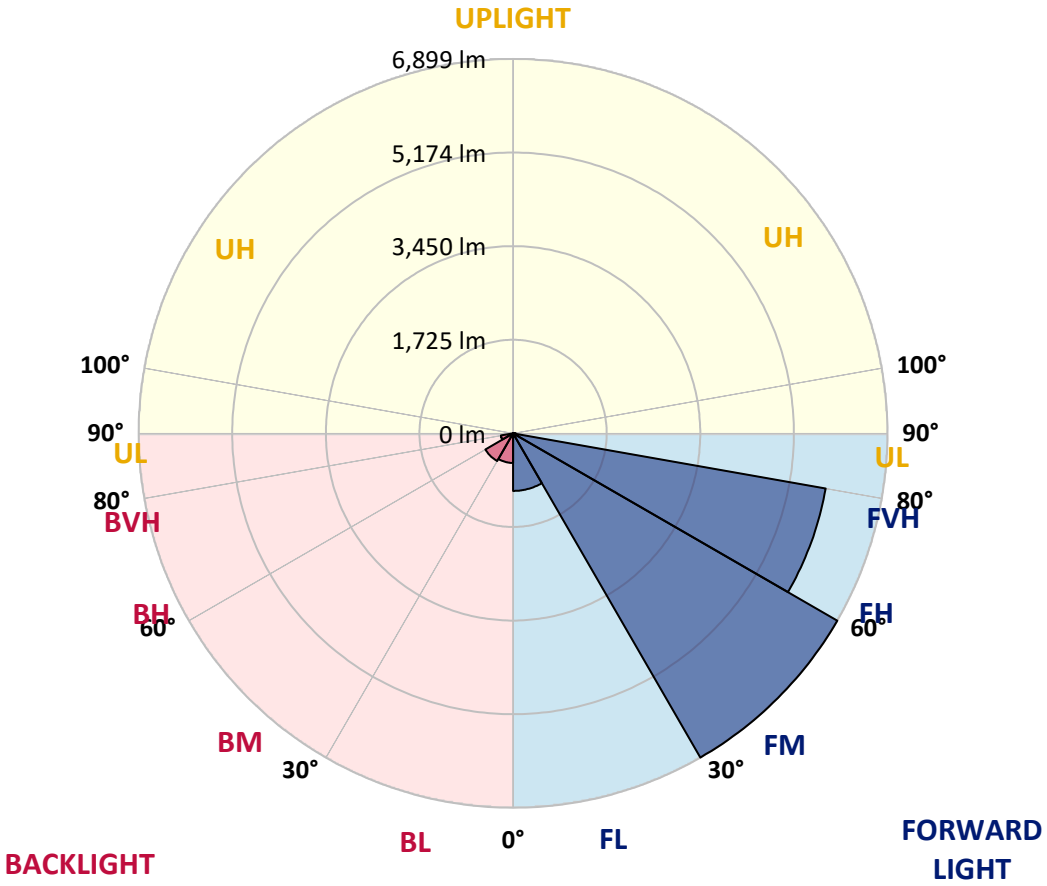
LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	1061.2	7.0			
FM	(30°-60°)	6899.1	45.3			
FH	(60°-80°)	5849.5	38.4			G3/7500
FVH	(80°-90°)	51.3	0.3			G1/100
BL	(0°-30°)	544.8	3.6	B2/1000		
BM	(30°-60°)	589.2	3.9	B1/1000		
BH	(60°-80°)	228.1	1.5	B1/500		G1/500
BVH	(80°-90°)	5.8	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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REPORT NUMBER: P638007
CATALOG NUMBER: GWS-SA4D-830-U-T3R-W-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	56°	65°	75°	85°
0°	2745.9	2745.9	2745.9	2745.9	2745.9	2745.9	2745.9	2745.9	2745.9	2745.9	2745.9
2.5°	2556.3	2552.1	2554.9	2575.8	2614.8	2633.0	2663.6	2669.2	2694.3	2726.4	2739.0
5°	2390.3	2376.4	2383.3	2412.6	2457.2	2507.5	2564.6	2580.0	2642.7	2713.8	2766.8
7.5°	2238.3	2223.0	2239.7	2285.7	2348.5	2402.9	2487.9	2497.7	2598.1	2723.6	2819.8
10°	1999.8	2004.0	2037.5	2118.4	2214.6	2327.6	2441.9	2455.9	2580.0	2755.7	2904.9
12.5°	1817.1	1807.4	1843.6	1935.7	2070.9	2235.5	2407.0	2425.2	2581.4	2804.5	3013.7
15°	1732.1	1729.3	1744.6	1811.6	1942.6	2136.5	2375.0	2398.7	2599.5	2849.1	3116.9
17.5°	1734.9	1730.7	1729.3	1768.3	1865.9	2062.6	2340.1	2370.8	2614.8	2897.9	3225.7
20°	1856.2	1836.7	1801.8	1783.7	1842.2	2015.2	2316.4	2351.3	2637.1	2949.5	3341.4
22.5°	2110.0	2117.0	2023.5	1925.9	1898.0	2020.7	2313.6	2354.0	2686.0	3030.4	3483.7
25°	2617.6	2606.5	2433.5	2214.6	2062.6	2084.9	2362.4	2411.2	2782.2	3146.2	3617.5
27.5°	3253.6	3263.3	3026.2	2677.6	2359.6	2217.4	2451.7	2500.5	2893.7	3218.7	3706.8
30°	3946.7	3936.9	3683.1	3296.8	2780.8	2437.7	2540.9	2584.2	2949.5	3257.7	3798.8
32.5°	4602.1	4579.8	4328.8	3924.3	3317.7	2785.0	2663.6	2688.7	3023.4	3342.8	3922.9
35°	5161.3	5159.9	4941.0	4510.1	3870.0	3220.1	2874.2	2895.1	3161.5	3478.1	4105.6
37.5°	5738.7	5719.2	5473.7	5080.4	4437.5	3697.0	3196.4	3188.0	3379.1	3677.5	4330.2
40°	6212.8	6200.3	6012.0	5634.1	5027.5	4224.2	3586.9	3561.8	3637.1	3953.6	4642.5
42.5°	6564.3	6565.7	6507.1	6277.0	5652.2	4833.6	4077.7	4038.7	4037.3	4370.6	5055.3
45°	6830.6	6848.8	6936.6	6901.8	6390.0	5543.4	4706.7	4666.3	4597.9	4911.7	5528.1
47.5°	6954.8	6978.5	7243.4	7382.9	7035.6	6247.7	5455.6	5370.5	5236.6	5631.3	6056.7
50°	6942.2	6984.0	7353.6	7777.6	7621.4	6961.7	6271.4	6231.0	6012.0	6392.7	6579.6
52.5°	6657.7	6747.0	7360.6	8017.4	8071.8	7620.0	7115.1	7039.8	6933.8	7187.7	7070.5
55°	5885.1	5993.9	7066.3	8094.1	8423.3	8194.5	7940.7	7879.4	7703.6	7937.9	7498.6
57.5°	5465.4	5558.8	6447.1	8056.5	8721.7	8725.9	8675.7	8625.5	8480.4	8679.9	8000.7
60°	5212.9	5306.4	6116.6	7918.4	8992.2	9286.5	9366.0	9360.4	9151.2	9523.6	8589.2
62.5°	4843.4	4971.7	5772.2	7560.0	9184.7	9838.7	10078.6	10041.0	9808.1	10402.2	9172.1
65°	4097.3	4208.8	5066.5	6968.7	9071.7	10296.2	10851.2	10870.7	10601.6	11229.1	9632.3
67.5°	2872.8	2955.1	3807.2	5727.5	8304.7	10446.8	11641.9	11640.5	11181.7	11653.1	9428.7
70°	1665.1	1778.1	2249.5	3540.8	6461.1	9762.0	11760.5	11800.9	10946.0	10767.5	7802.7
72.5°	644.3	737.7	1274.6	1881.3	3369.3	7477.7	10116.3	10234.8	9161.0	8306.1	5430.5
75°	192.5	214.8	599.7	1001.3	1352.7	3612.0	6848.8	6882.2	6284.0	5180.9	2783.6
77.5°	143.6	159.0	262.2	506.2	474.2	1094.7	3543.6	3870.0	3335.8	1850.6	767.0
80°	97.6	115.7	186.9	246.8	175.7	291.5	995.7	1093.3	1018.0	415.6	192.5
82.5°	43.2	55.8	132.5	124.1	64.2	83.7	306.8	326.3	210.6	125.5	66.9
85°	4.2	5.6	50.2	54.4	23.7	19.5	64.2	64.2	46.0	43.2	27.9
87.5°	0.0	0.0	1.4	2.8	2.8	4.2	5.6	7.0	8.4	11.2	13.9
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-SA4D-830-U-T3R-W-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2745.9	2745.9	2745.9	2745.9	2745.9	2745.9	2745.9	2745.9	2745.9	2745.9	2745.9
2.5°	2771.0	2754.3	2775.2	2791.9	2796.1	2765.4	2747.3	2720.8	2715.2	2716.6	2709.7
5°	2808.7	2800.3	2815.7	2797.5	2750.1	2660.9	2584.2	2499.1	2453.1	2426.6	2423.8
7.5°	2878.4	2874.2	2857.5	2775.2	2627.4	2429.4	2238.3	2051.4	1935.7	1893.8	1886.9
10°	2981.6	2973.2	2904.9	2709.7	2394.5	2013.8	1693.0	1425.3	1262.1	1214.7	1156.1
12.5°	3100.1	3083.4	2934.2	2568.8	2043.1	1515.9	1115.7	815.8	675.0	633.1	633.1
15°	3214.5	3178.2	2917.5	2335.9	1610.7	986.0	623.4	471.4	428.1	417.0	417.0
17.5°	3331.6	3261.9	2851.9	2018.0	1112.9	582.9	415.6	386.3	380.7	382.1	383.5
20°	3441.8	3333.0	2736.2	1635.8	709.8	407.2	372.4	365.4	362.6	365.4	364.0
22.5°	3561.8	3398.6	2560.4	1218.9	461.6	366.8	354.2	348.6	345.9	350.0	350.0
25°	3680.3	3446.0	2327.6	820.0	366.8	341.7	334.7	329.1	326.3	327.7	327.7
27.5°	3741.7	3427.9	2022.1	523.0	329.1	316.6	309.6	302.6	298.4	297.0	298.4
30°	3783.5	3372.1	1648.4	372.4	298.4	283.1	276.1	270.5	259.4	252.4	255.2
32.5°	3849.0	3316.3	1242.6	312.4	273.3	249.6	238.5	224.5	209.2	202.2	202.2
35°	3927.1	3239.6	871.6	281.7	246.8	221.7	200.8	177.1	159.0	153.4	153.4
37.5°	4030.3	3167.1	580.1	260.8	224.5	198.0	168.7	140.9	121.3	118.5	117.1
40°	4185.1	3105.7	408.6	245.4	205.0	172.9	138.1	108.8	94.8	90.6	90.6
42.5°	4385.9	3043.0	323.5	230.1	188.3	149.2	110.2	86.5	75.3	72.5	71.1
45°	4634.2	2969.1	281.7	216.2	171.5	124.1	87.9	72.5	64.2	61.4	61.4
47.5°	4903.3	2868.6	262.2	198.0	152.0	100.4	73.9	62.8	58.6	57.2	55.8
50°	5168.3	2733.4	245.4	181.3	129.7	82.3	64.2	57.2	54.4	53.0	53.0
52.5°	5399.8	2575.8	224.5	161.8	106.0	71.1	57.2	53.0	50.2	47.4	46.0
55°	5597.8	2404.3	198.0	139.5	86.5	62.8	53.0	48.8	46.0	43.2	41.8
57.5°	5853.0	2306.6	159.0	113.0	71.1	55.8	48.8	44.6	41.8	37.7	37.7
60°	6136.1	2235.5	118.5	89.3	61.4	51.6	44.6	40.4	37.7	33.5	33.5
62.5°	6363.5	2129.5	93.4	72.5	53.0	46.0	40.4	36.3	33.5	29.3	29.3
65°	6449.9	1910.6	76.7	57.2	43.2	40.4	36.3	33.5	29.3	25.1	25.1
67.5°	6059.4	1472.7	64.2	46.0	36.3	34.9	32.1	30.7	25.1	22.3	20.9
70°	*4798.7*	*898.1*	*53.0*	*37.7*	*30.7*	*29.3*	*29.3*	*26.5*	*22.3*	*20.9*	*19.5*
72.5°	3288.4	463.0	43.2	30.7	26.5	26.5	25.1	23.7	20.9	19.5	19.5
75°	1708.4	154.8	33.5	23.7	20.9	22.3	22.3	20.9	19.5	19.5	18.1
77.5°	489.5	69.7	25.1	18.1	16.7	16.7	18.1	18.1	18.1	16.7	16.7
80°	126.9	40.4	18.1	13.9	13.9	13.9	13.9	15.3	16.7	15.3	15.3
82.5°	51.6	22.3	12.6	11.2	11.2	11.2	11.2	12.6	13.9	13.9	13.9
85°	32.1	11.2	9.8	9.8	9.8	8.4	8.4	9.8	9.8	11.2	11.2
87.5°	19.5	8.4	8.4	8.4	8.4	7.0	7.0	7.0	7.0	7.0	7.0
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

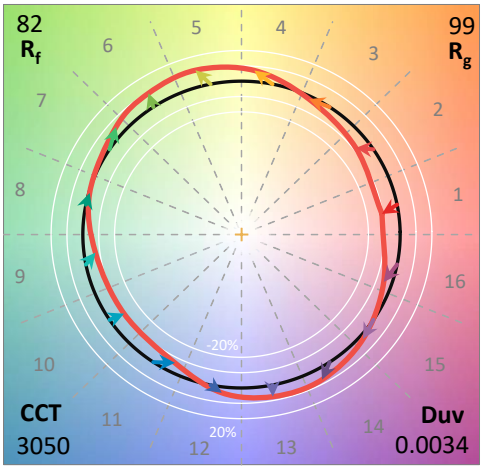
Test Information

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

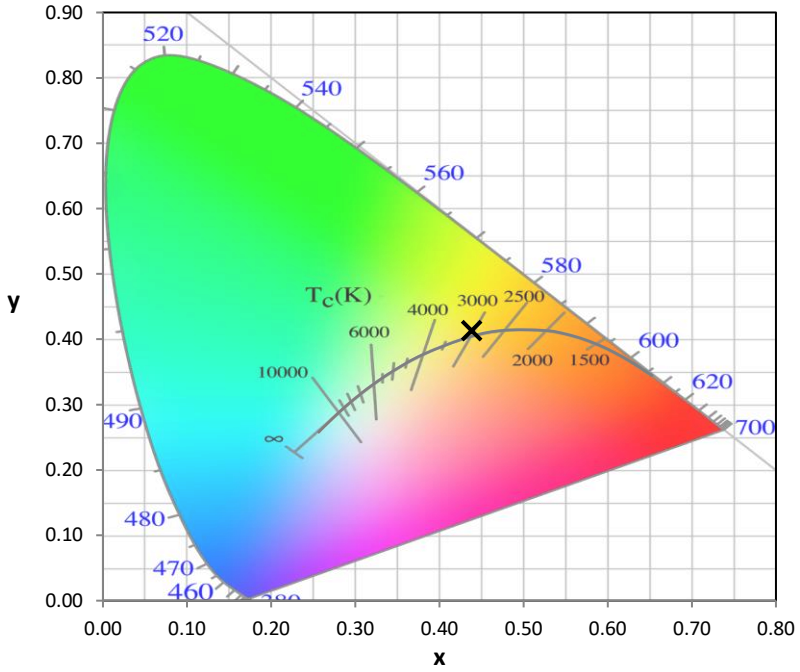
Stabilization Time:	20M
Operation Time:	1H 20M
Sphere Temperature (°C):	24.2

REPORT NUMBER: SP1-2408-195-9

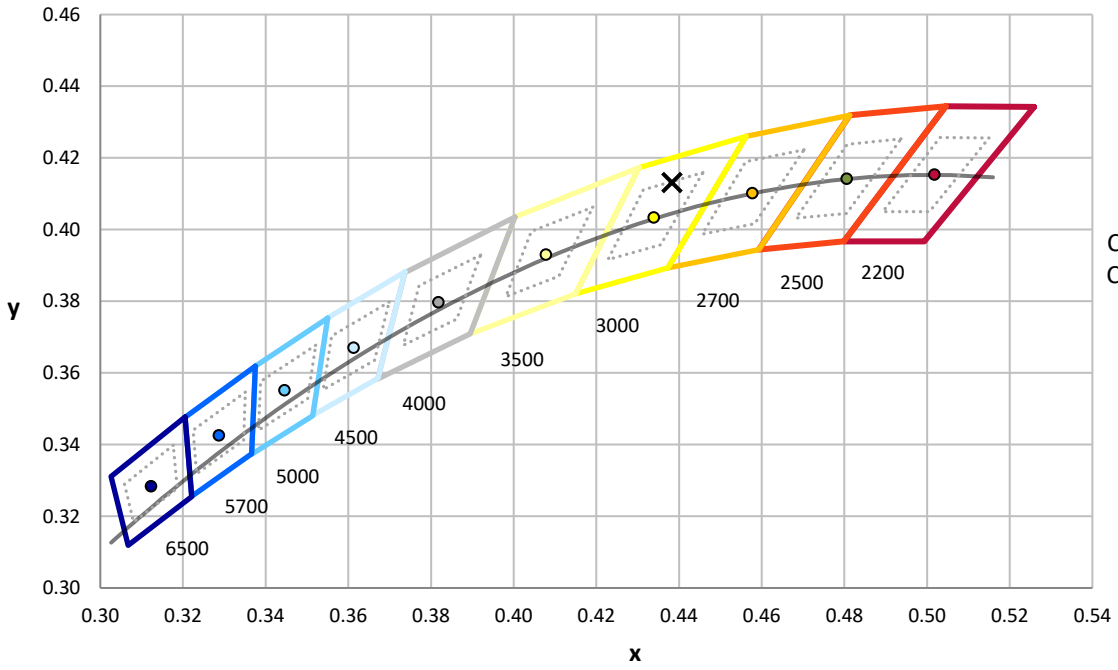
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

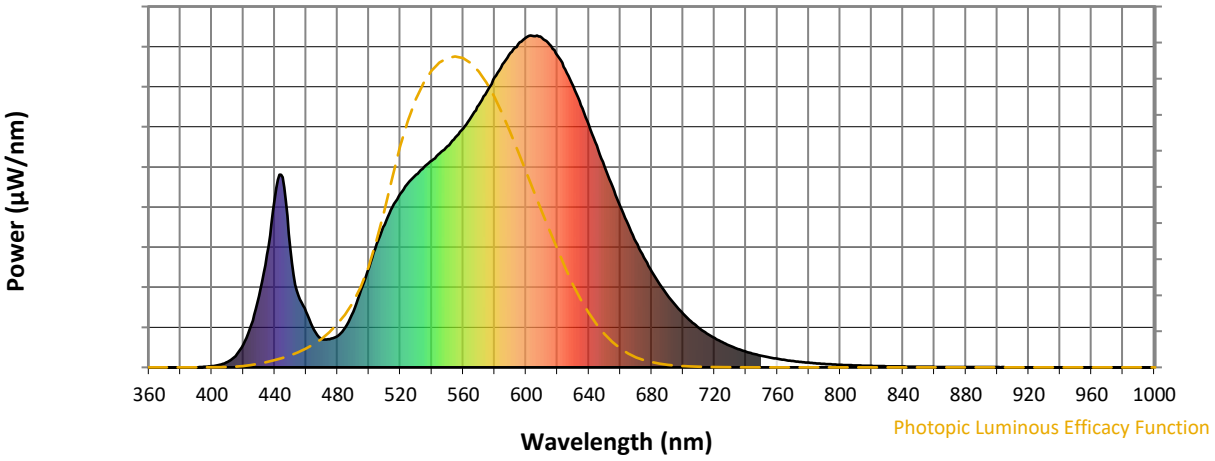


CCT = 3050K
CIE x = 0.4383
CIE y = 0.4131
Duv = 0.0034

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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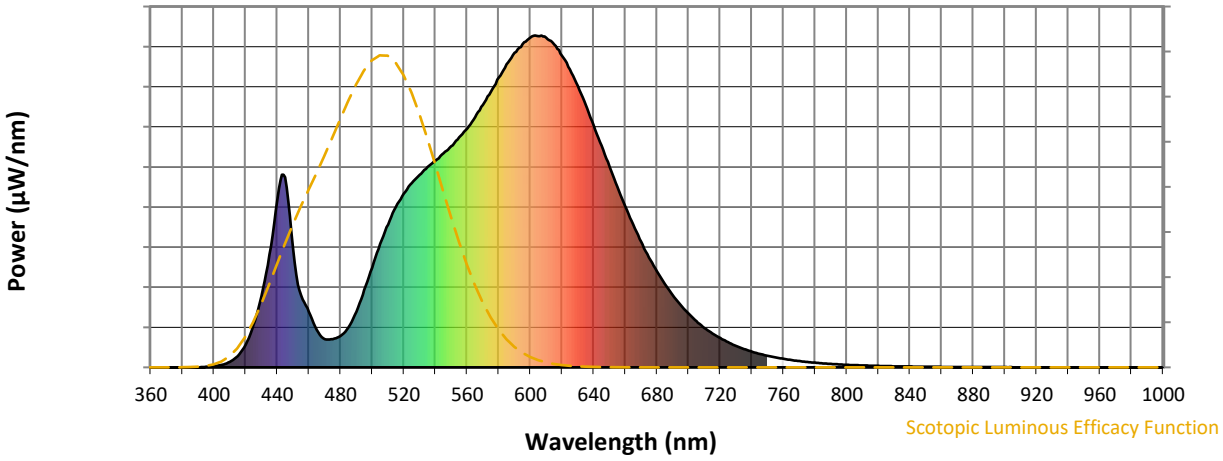
Scotopic Flux vs. Wavelength



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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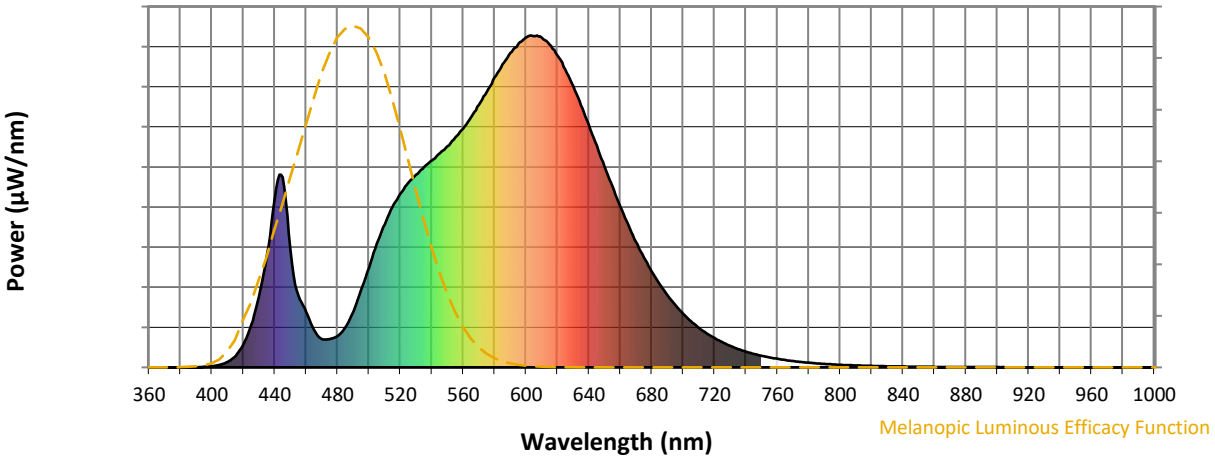
Melanopic Flux vs. Wavelength



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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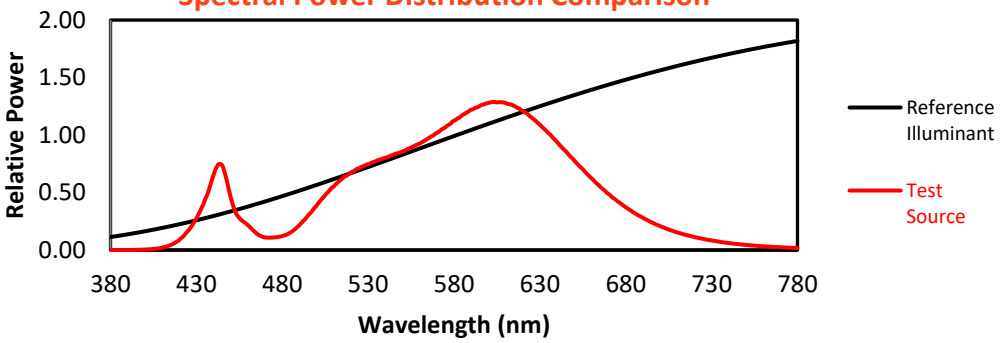
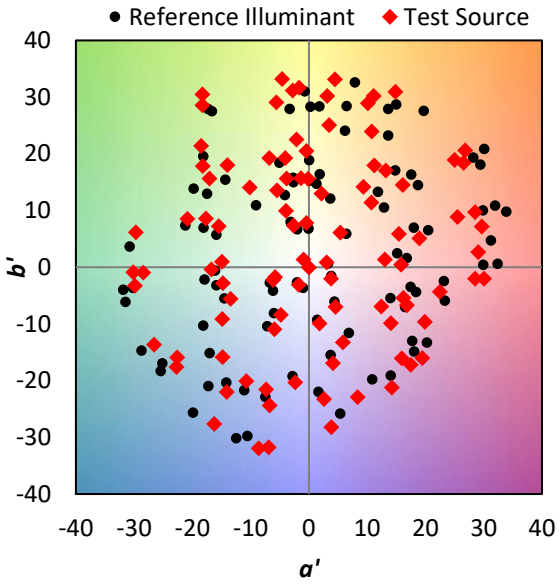
Summary

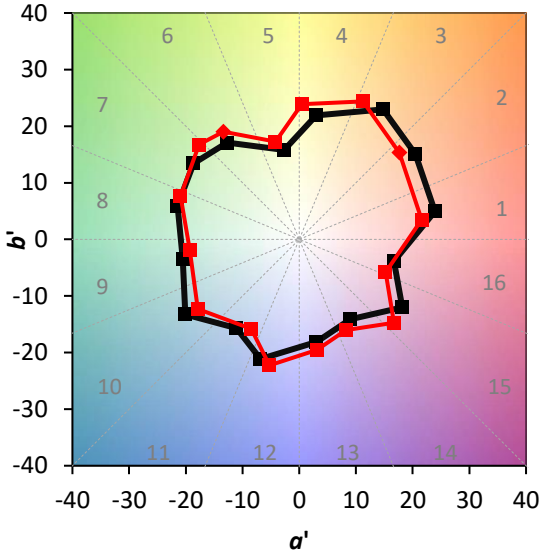
R_f = 81.5
R_g = 99.2
CIE R_a = 81.0
R_9 = 7.1

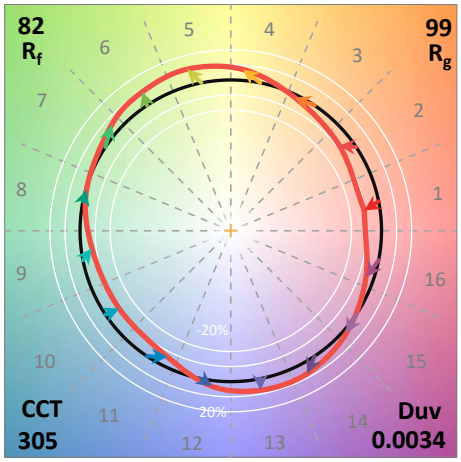
Spectral Power Distribution Comparison

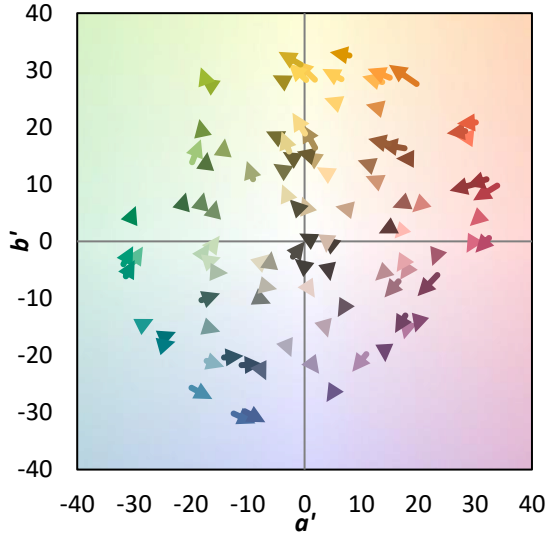


Color Vector Graphics









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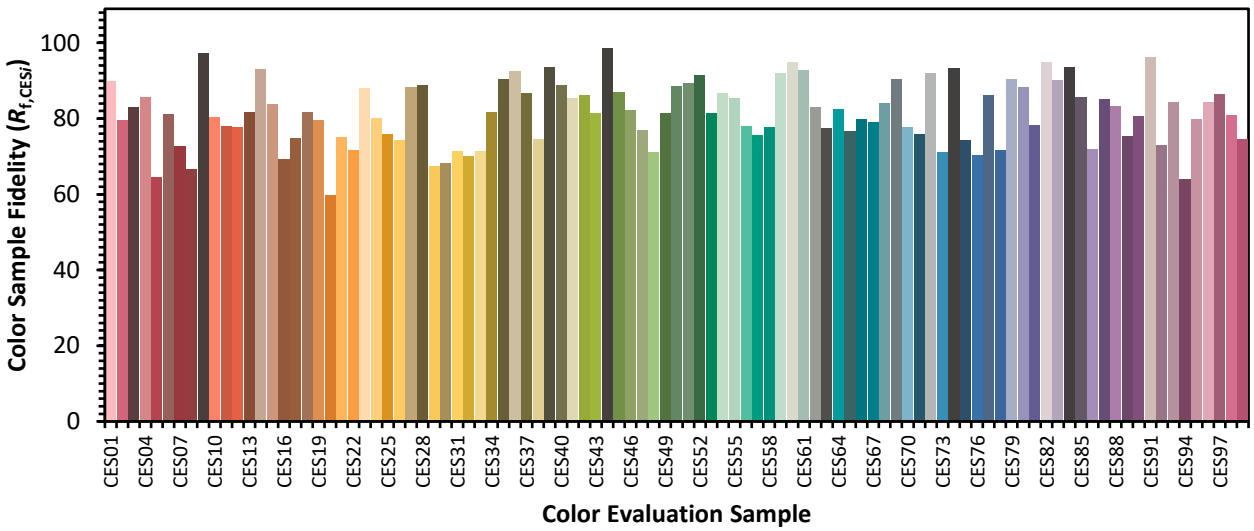
Individual Sample Fidelity Index ($R_{f,i}$)

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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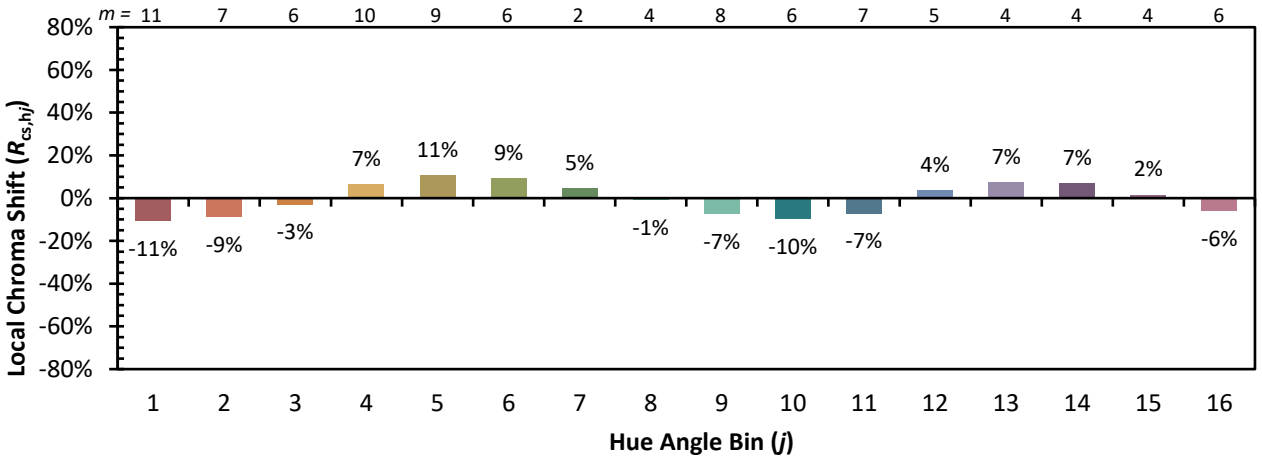
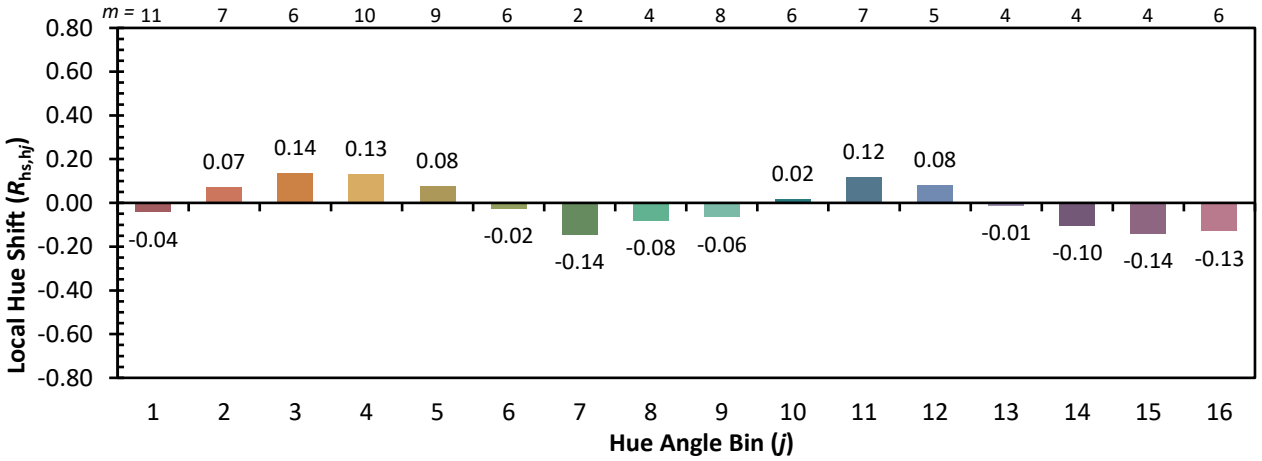
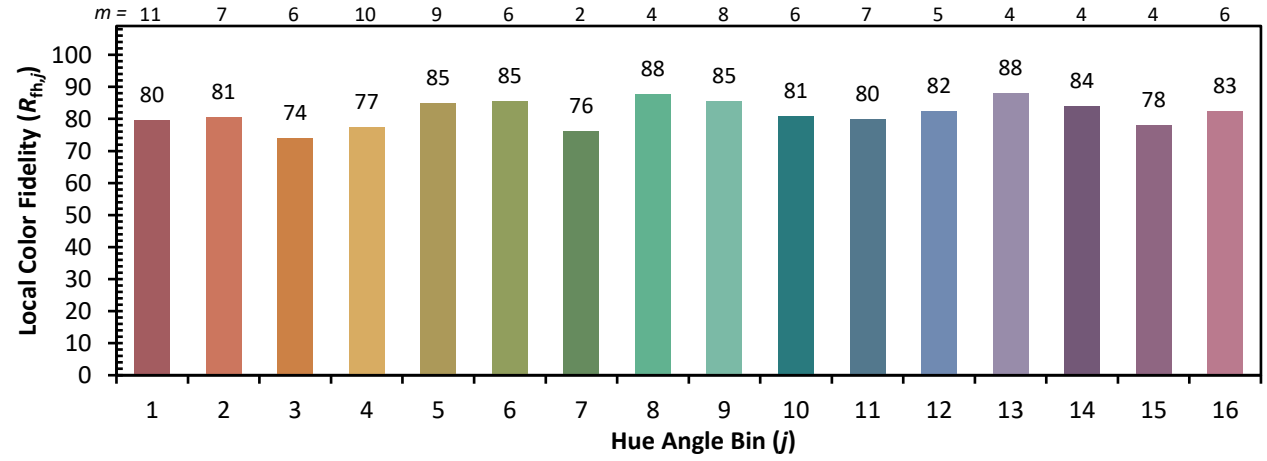
Color Rendition by Hue-Angle Bin







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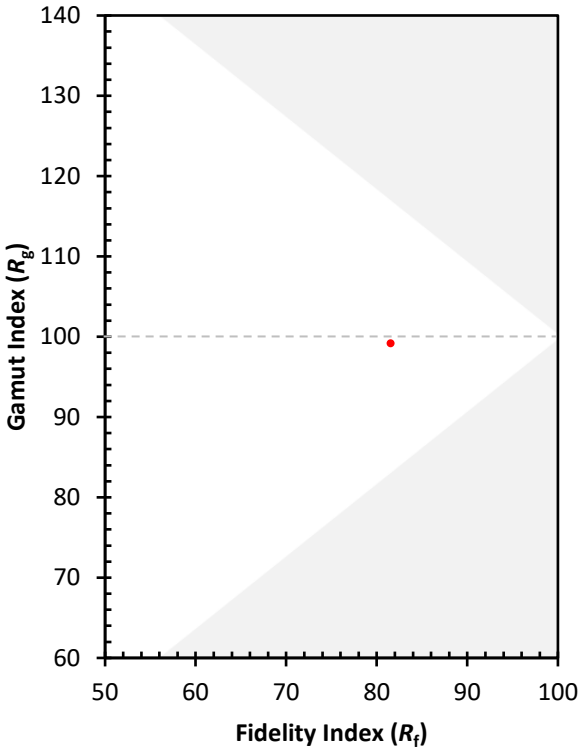
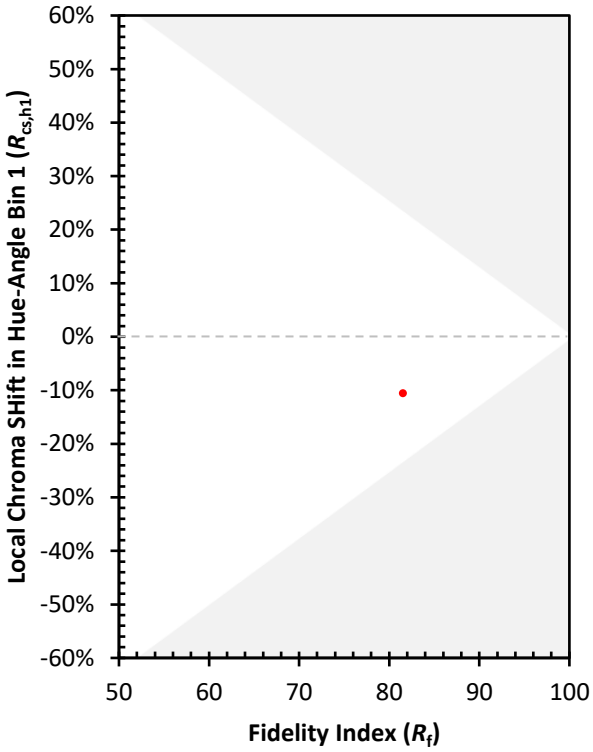
Measure Comparisons





(END OF REPORT)