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: P638507

Luminaire Tested: GWS-SA4E-830-U-T4W-W

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:	P638507
	TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-52)
Test Lab:	COOPER LIGHTING SOLUTIONS
Issue Date:	1/10/2023
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	McGRAW-EDISON
Catalog Number:	GWS-SA4E-830-U-T4W-W
Description:	GALLEON WALL SLIM LUMINAIRE. (4) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV WIDE OPTICS
Light Source:	(64) 3000K CCT, 80 CRI LEDS
Ballast/Driver:	-

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	24102.1 lumens
Efficiency:	N/A
Efficacy:	119.0 lumens/watt
Luminous Opening:	Rectangular (W 1' x L: 1' x H: 0')
IES Classification:	Type III - Short
BUG Rating:	B3 - U0 - G4

Input Watts (W):	202.6
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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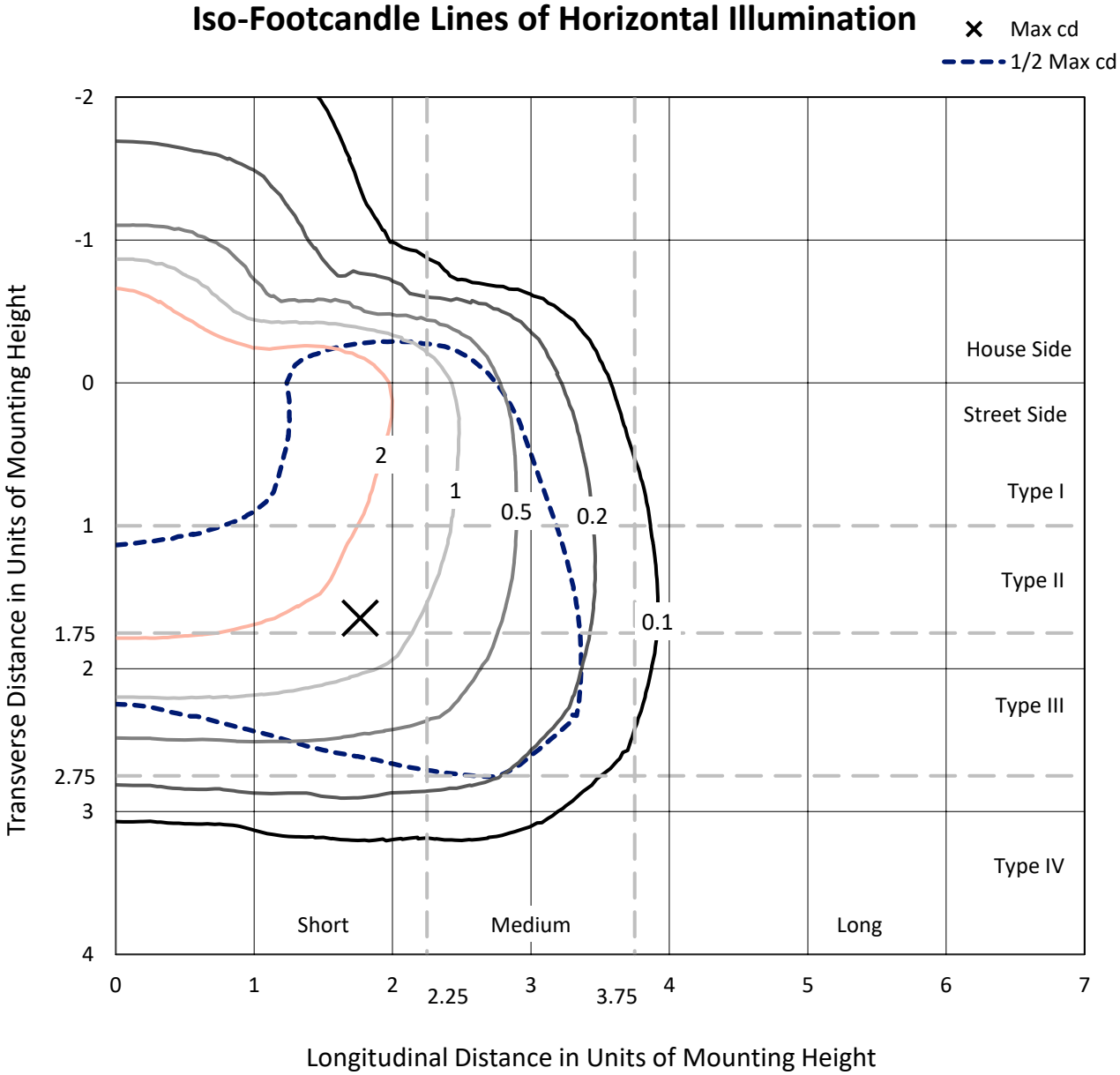
Scaled Data Report

REPORT NUMBER: P638507
CATALOG NUMBER: GWS-SA4E-830-U-T4W-W

Iso-Footcandle Lines of Horizontal Illumination



Based on 25 foot mounting height. Maximum calculated value = 4.8 fc
Type III - Short - N/A

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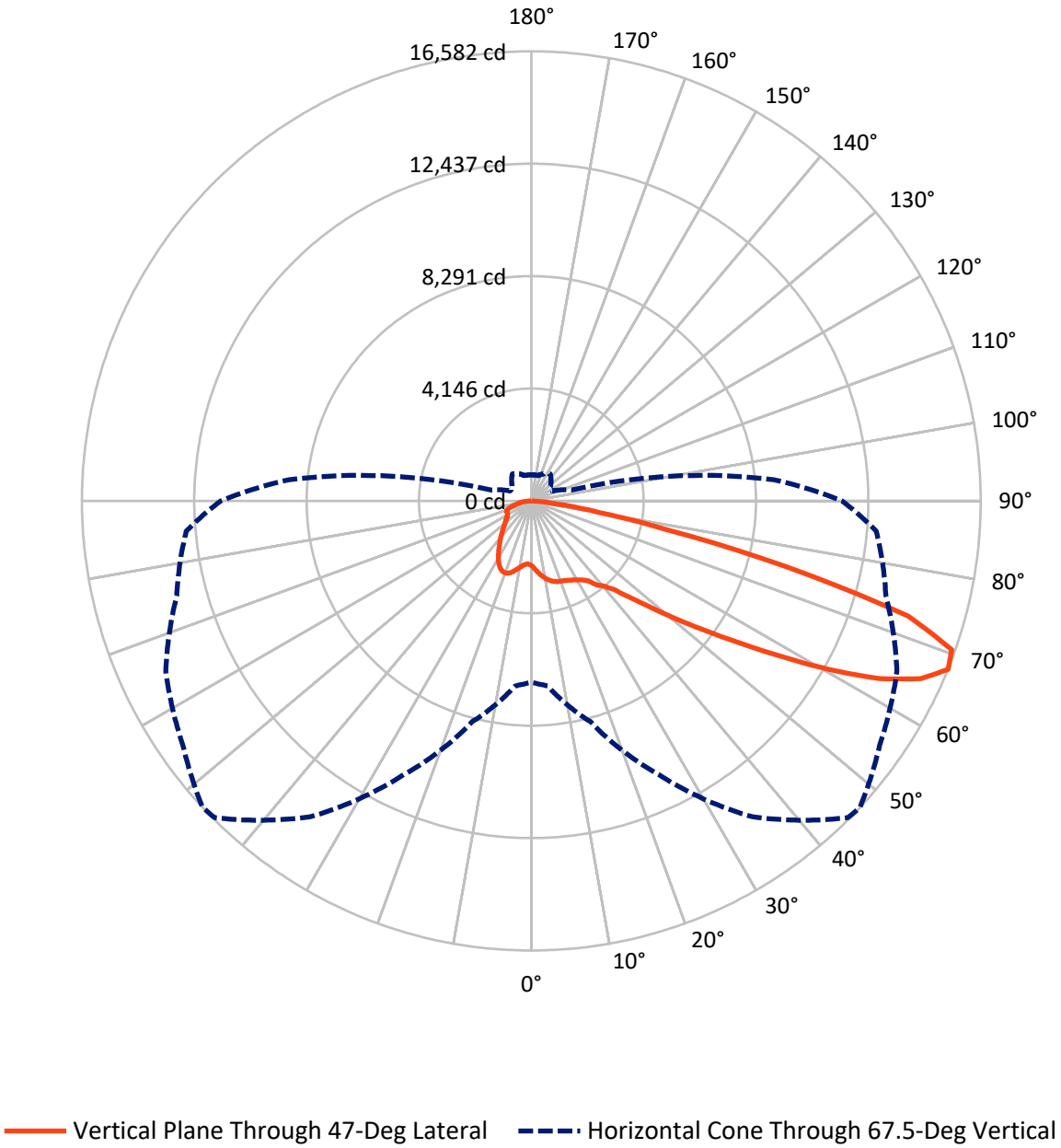
Luminous Intensity Polar Plot



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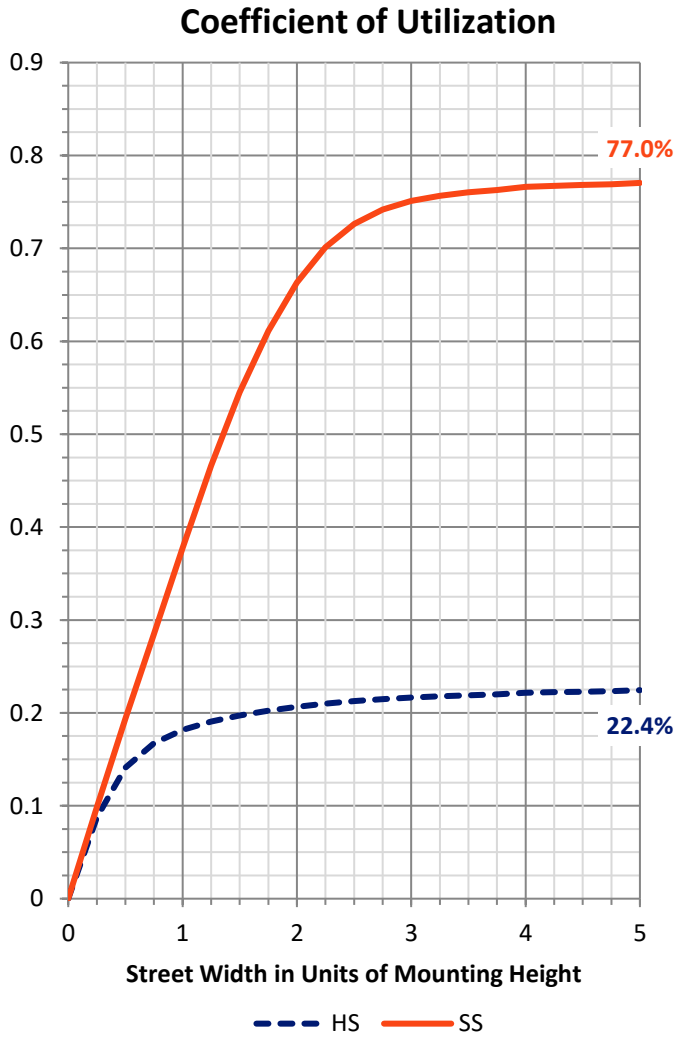
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5493.1	0.0	5493.1
	% Fixture	22.8	0.0	22.8
Street Side	Lumens	18609.1	0.0	18609.1
	% Fixture	77.2	0.0	77.2
Total	Lumens	24102.1	0.0	24102.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	244.2	1.0
10°-20°	813.5	3.4
20°-30°	1382.8	5.7
30°-40°	2025.7	8.4
40°-50°	3086.3	12.8
50°-60°	5522.1	22.9
60°-70°	7368.7	30.6
70°-80°	3332.3	13.8
80°-90°	326.5	1.4
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°	24102.1	100.0
0°-180°	24102.1	100.0



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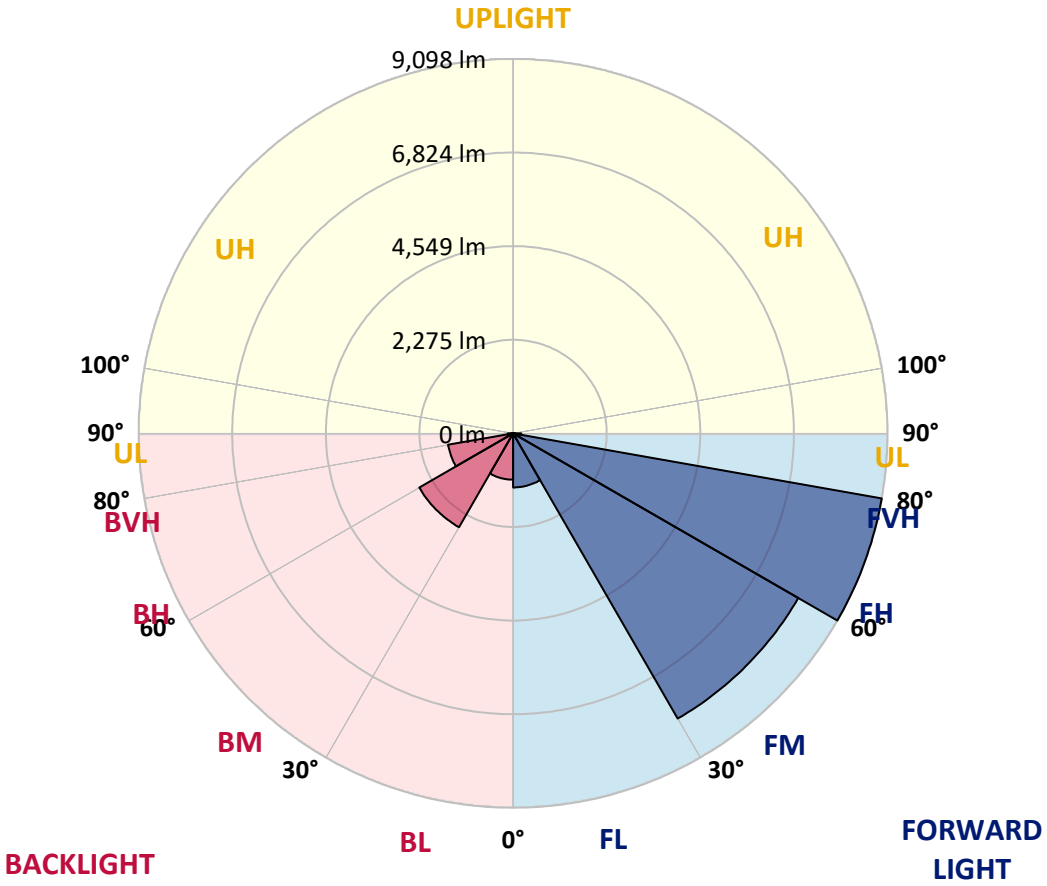
REPORT NUMBER: P638507
CATALOG NUMBER: GWS-SA4E-830-U-T4W-W

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	1314.4	5.5			
FM	(30°-60°)	8002.1	33.2			
FH	(60°-80°)	9098.3	37.7			G4/12000
FVH	(80°-90°)	194.2	0.8			G2/225
BL	(0°-30°)	1126.1	4.7	B3/2500		
BM	(30°-60°)	2632.0	10.9	B3/5000		
BH	(60°-80°)	1602.7	6.6	B3/2500		G3/2500
BVH	(80°-90°)	132.3	0.5			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4
Type III Short



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REPORT NUMBER: P638507
CATALOG NUMBER: GWS-SA4E-830-U-T4W-W

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	47°	55°	65°	75°	85°
0°	2389.3	2389.3	2389.3	2389.3	2389.3	2389.3	*2389.3*	2389.3	2389.3	2389.3	2389.3
2.5°	2547.9	2556.6	2554.8	2540.9	2532.2	2516.5	*2518.2*	2493.8	2457.2	2432.8	2405.0
5°	2772.7	2786.6	2769.2	2746.5	2711.7	2661.1	*2655.9*	2600.2	2530.4	2481.6	2431.1
7.5°	2967.9	2976.6	2955.7	2917.3	2866.8	2798.8	*2786.6*	2720.4	2633.3	2556.6	2483.4
10°	3119.5	3129.9	3102.1	3051.5	2985.3	2917.3	*2908.6*	2840.6	2748.3	2657.7	2565.3
12.5°	3248.4	3251.9	3222.3	3154.3	3082.9	3013.2	*3004.5*	2941.7	2856.3	2764.0	2662.9
15°	3323.4	3325.1	3288.5	3213.6	3145.6	3084.6	*3079.4*	3025.4	2947.0	2859.8	2751.8
17.5°	3318.2	3321.6	3295.5	3229.3	3170.0	3133.4	*3128.2*	3093.3	3032.3	2953.9	2845.9
20°	3253.7	3257.2	3239.7	3196.2	3164.8	3154.3	*3156.1*	3145.6	3109.0	3044.5	2934.8
22.5°	3203.1	3208.4	3192.7	3161.3	3157.8	3182.2	*3187.5*	3192.7	3175.3	3117.7	3011.4
25°	3227.5	3236.2	3211.8	3168.3	3175.3	3229.3	*3239.7*	3257.2	3243.2	3194.4	3102.1
27.5°	3396.6	3401.8	3339.1	3250.2	3229.3	3286.8	*3302.5*	3330.4	3319.9	3274.6	3203.1
30°	3788.7	3785.2	3651.0	3433.2	3346.0	3368.7	*3380.9*	3421.0	3424.5	3394.8	3326.9
32.5°	4341.1	4323.7	4116.3	3769.5	3516.8	3461.1	*3475.0*	3529.0	3569.1	3537.7	3445.4
35°	4925.0	4909.3	4681.0	4274.9	3832.3	3638.8	*3623.1*	3665.0	3726.0	3638.8	3506.4
37.5°	5480.9	5456.5	5223.0	4721.1	4220.9	3950.8	*3928.1*	3886.3	3849.7	3682.4	3581.3
40°	6097.8	6069.9	5866.0	5297.9	4649.6	4189.5	*4132.0*	3966.5	3933.3	3827.0	3776.5
42.5°	6756.6	6756.6	6587.5	6028.1	5167.2	4531.1	*4456.2*	4206.9	4241.8	4172.1	4112.8
45°	7415.3	7434.5	7300.3	6763.5	5859.1	5175.9	*5055.7*	4701.9	4785.5	4754.2	4724.5
47.5°	7976.5	8013.1	7986.9	7514.6	6706.0	5960.1	*5777.1*	5409.4	5588.9	5663.9	5747.5
50°	8581.2	8621.3	8595.1	8408.7	7697.6	6909.9	*6746.1*	6366.2	6674.7	6899.5	7173.1
52.5°	9478.7	9536.2	9318.4	9246.9	8901.9	7988.7	*7842.3*	7410.1	7969.5	8342.4	8952.4
55°	10236.8	10235.0	10158.4	10322.2	10195.0	9307.9	*9145.8*	8753.7	9468.2	9863.8	10756.1
57.5°	10588.8	10630.6	10893.8	11357.4	11611.8	10919.9	*10764.8*	10364.0	11076.8	11282.4	12246.2
60°	10770.1	10822.3	11331.2	12247.9	12932.8	12680.1	*12619.1*	12108.5	12509.3	12484.9	13502.7
62.5°	10515.6	10620.2	11437.5	12655.7	13875.6	14449.0	*14429.8*	13657.8	13727.5	13488.7	14281.7
65°	9348.0	9461.3	10743.9	12451.8	14414.1	15794.3	*15799.6*	15060.7	14663.3	13976.7	14151.0
67.5°	*6685.1*	*6847.2*	*8433.1*	*11141.3*	*14224.2*	*16521.1*	*16582.1*	*15696.8*	*14882.9*	*13544.5*	*12777.7*
70°	3644.0	3762.6	5005.1	8098.5	12512.8	16346.8	*16460.1*	15390.0	13913.9	11716.4	9836.0
72.5°	1655.6	1693.9	2328.3	4444.0	8548.1	14070.8	*14544.8*	13734.4	11427.1	8654.4	6254.7
75°	758.1	775.5	1014.3	2126.1	4466.6	9416.0	*9748.8*	10229.8	7952.1	5465.2	3260.6
77.5°	475.8	481.0	576.8	972.4	2227.2	4700.1	*5050.4*	6090.8	4656.6	2704.7	1362.8
80°	280.6	285.8	359.0	526.3	1045.6	2150.5	*2483.4*	2408.5	2188.9	1167.6	620.4
82.5°	141.2	146.4	207.4	299.7	569.9	855.7	*1007.3*	1012.5	815.6	632.6	350.3
85°	50.5	52.3	68.0	118.5	242.2	282.3	*315.4*	385.1	399.1	367.7	169.0
87.5°	0.0	0.0	1.7	3.5	7.0	27.9	*29.6*	55.8	116.8	130.7	68.0
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: P638507
CATALOG NUMBER: GWS-SA4E-830-U-T4W-W

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2389.3	2389.3	2389.3	2389.3	2389.3	2389.3	2389.3	2389.3	2389.3	2389.3	2389.3
2.5°	2396.3	2370.1	2361.4	2352.7	2338.7	2333.5	2323.1	2312.6	2312.6	2302.1	2296.9
5°	2408.5	2373.6	2350.9	2340.5	2331.8	2337.0	2337.0	2340.5	2352.7	2345.7	2349.2
7.5°	2452.0	2411.9	2380.6	2371.9	2371.9	2392.8	2406.7	2424.1	2446.8	2450.3	2450.3
10°	2528.7	2481.6	2448.5	2443.3	2452.0	2481.6	2502.6	2523.5	2551.4	2553.1	2556.6
12.5°	2612.4	2565.3	2532.2	2539.2	2547.9	2586.2	2608.9	2626.3	2654.2	2654.2	2652.4
15°	2699.5	2647.2	2619.3	2633.3	2659.4	2703.0	2706.5	2708.2	2722.1	2718.7	2716.9
17.5°	2790.1	2734.3	2713.4	2734.3	2762.2	2783.1	2765.7	2741.3	2736.1	2729.1	2725.6
20°	2879.0	2821.5	2812.8	2828.4	2837.2	2819.7	2765.7	2720.4	2699.5	2689.0	2685.5
22.5°	2955.7	2906.9	2901.6	2901.6	2858.1	2797.1	2716.9	2655.9	2628.0	2614.1	2610.6
25°	3046.3	3001.0	2992.3	2945.2	2833.7	2722.1	2614.1	2558.3	2535.7	2528.7	2530.4
27.5°	3152.6	3121.2	3093.3	2959.2	2764.0	2589.7	2467.7	2443.3	2434.6	2443.3	2448.5
30°	3283.3	3251.9	3189.2	2941.7	2652.4	2417.2	2300.4	2298.7	2324.8	2347.5	2350.9
32.5°	3389.6	3375.7	3272.8	2886.0	2495.6	2227.2	2127.9	2134.8	2181.9	2213.3	2218.5
35°	3473.3	3495.9	3342.6	2793.6	2309.1	2047.7	1969.3	1972.8	1998.9	2042.5	2044.2
37.5°	3591.8	3668.4	3405.3	2652.4	2094.8	1892.6	1821.2	1795.0	1791.5	1803.7	1807.2
40°	3830.5	3945.5	3450.6	2446.8	1887.4	1753.2	1673.0	1622.5	1578.9	1545.8	1535.3
42.5°	4191.3	4323.7	3476.7	2197.6	1702.6	1615.5	1524.9	1460.4	1383.7	1314.0	1289.6
45°	4853.5	4897.1	3476.7	1932.7	1538.8	1486.5	1395.9	1319.2	1221.7	1139.7	1122.3
47.5°	5913.1	5773.7	3480.2	1676.5	1394.2	1373.3	1294.8	1207.7	1099.7	1031.7	1021.2
50°	7509.4	7019.7	3551.7	1463.9	1273.9	1277.4	1219.9	1124.1	1026.5	975.9	967.2
52.5°	9318.4	8555.1	3743.4	1307.0	1172.9	1199.0	1167.6	1075.3	988.1	944.6	935.8
55°	11019.3	9966.7	3907.2	1195.5	1087.5	1132.8	1131.0	1045.6	967.2	923.6	918.4
57.5°	12465.7	10933.9	3882.8	1104.9	1014.3	1071.8	1097.9	1026.5	953.3	916.7	911.4
60°	13365.0	11446.2	3536.0	1021.2	958.5	1028.2	1078.7	1021.2	960.2	951.5	953.3
62.5°	13755.4	11352.1	2870.3	958.5	921.9	1007.3	1099.7	1057.8	1024.7	1045.6	1057.8
65°	13148.9	10543.5	2112.2	911.4	887.0	1012.5	1148.5	1115.3	1024.7	1038.7	1043.9
67.5°	*11465.4*	*8975.1*	*1526.6*	*864.4*	*843.5*	*1028.2*	*1218.2*	*1106.6*	*965.5*	*965.5*	*955.0*
70°	8262.3	6455.1	1108.4	817.3	799.9	1005.6	1221.7	1047.4	897.5	892.3	866.1
72.5°	4972.0	3807.9	864.4	765.1	733.7	892.3	1145.0	977.7	831.3	787.7	756.3
75°	2582.7	1908.3	725.0	707.5	629.1	756.3	1047.4	869.6	711.0	672.7	655.3
77.5°	1106.6	892.3	622.2	630.9	522.8	636.1	845.2	752.9	630.9	582.1	566.4
80°	545.5	507.1	491.4	505.4	418.3	491.4	728.5	658.8	535.0	479.3	456.6
82.5°	311.9	296.3	353.8	359.0	298.0	411.3	615.2	557.7	442.7	381.7	345.1
85°	144.6	155.1	214.4	216.1	184.7	282.3	402.6	313.7	235.3	195.2	186.5
87.5°	57.5	68.0	94.1	92.4	54.0	52.3	34.9	19.2	15.7	13.9	12.2
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

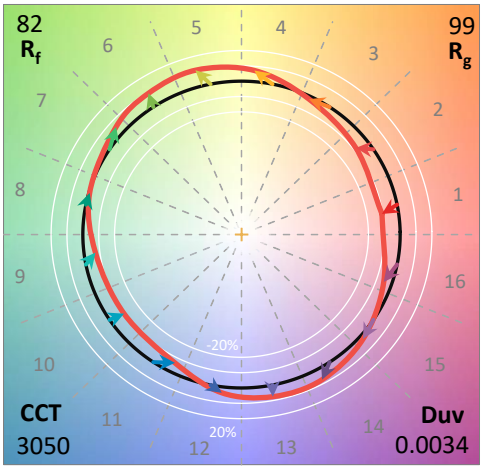
Test Information

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

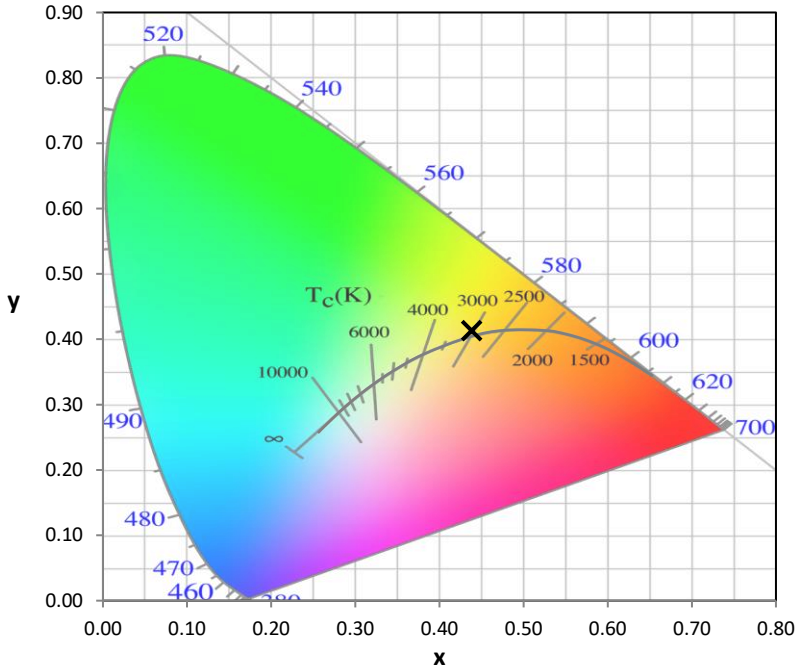
Stabilization Time:	20M
Operation Time:	1H 20M
Sphere Temperature (°C):	24.2

REPORT NUMBER: SP1-2408-195-9

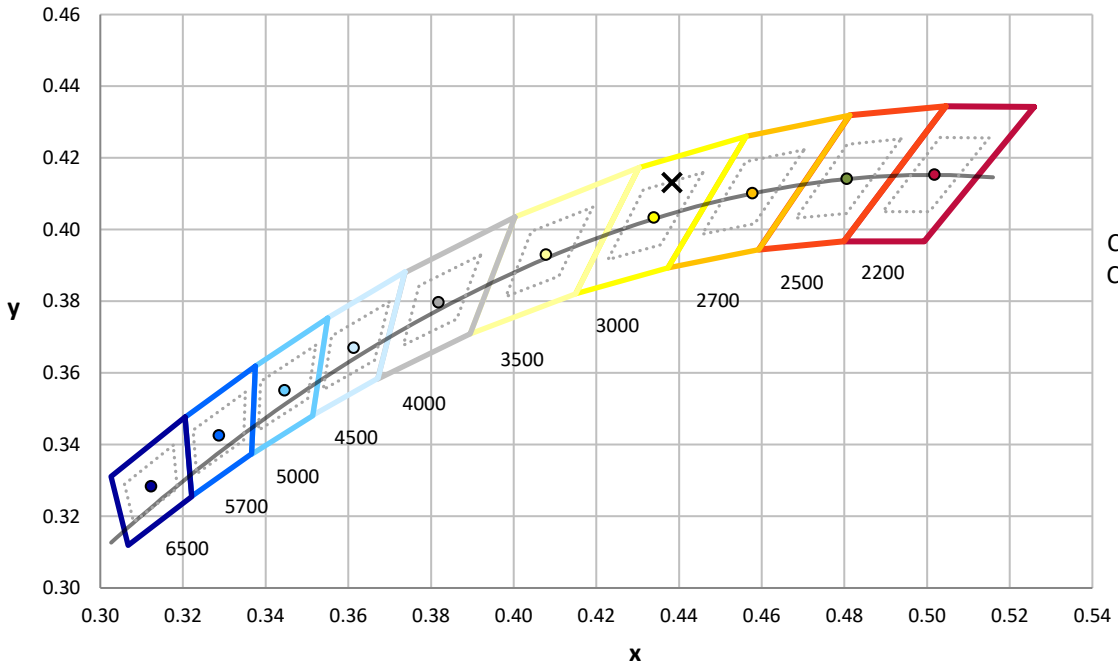
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

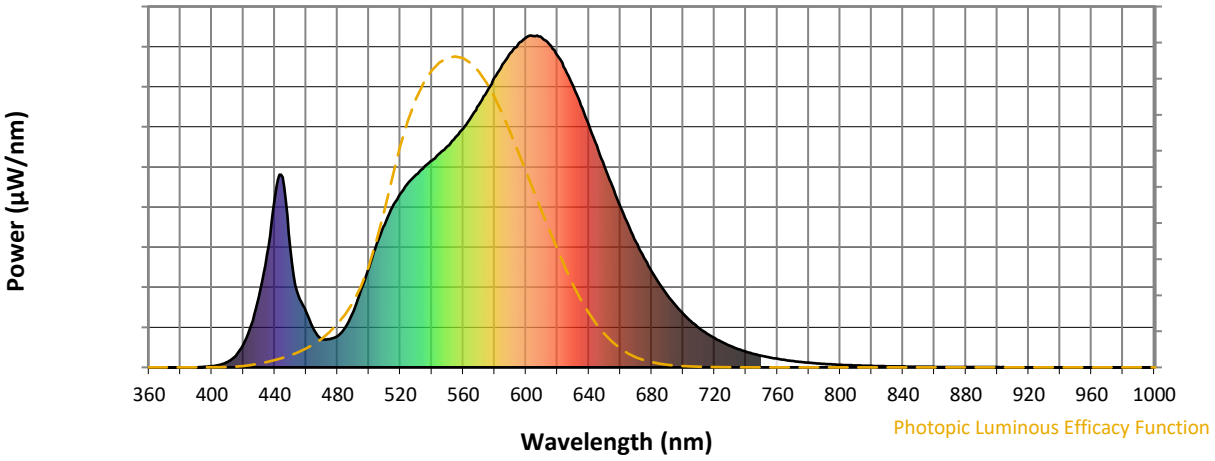


CCT = 3050K
CIE x = 0.4383
CIE y = 0.4131
Duv = 0.0034

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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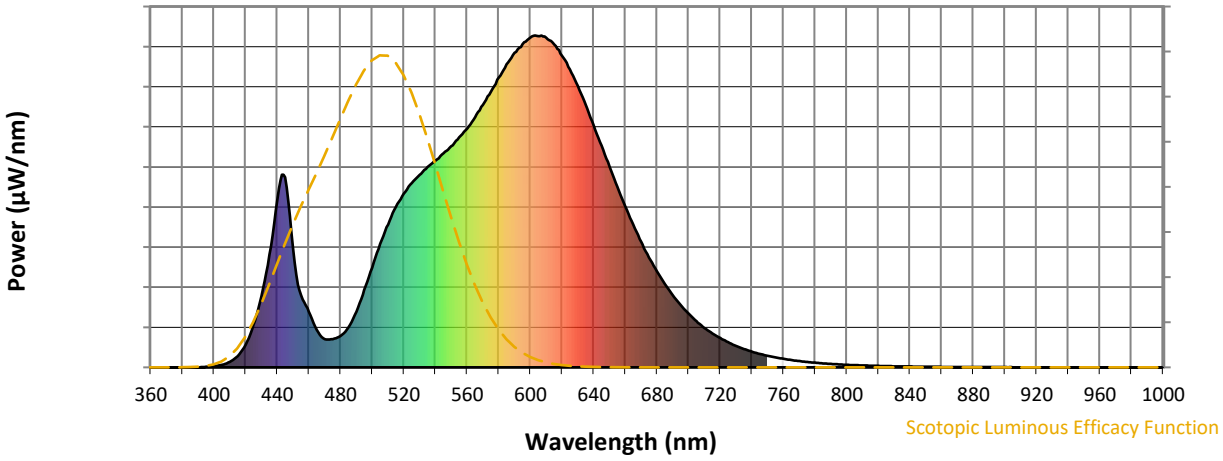
Scotopic Flux vs. Wavelength



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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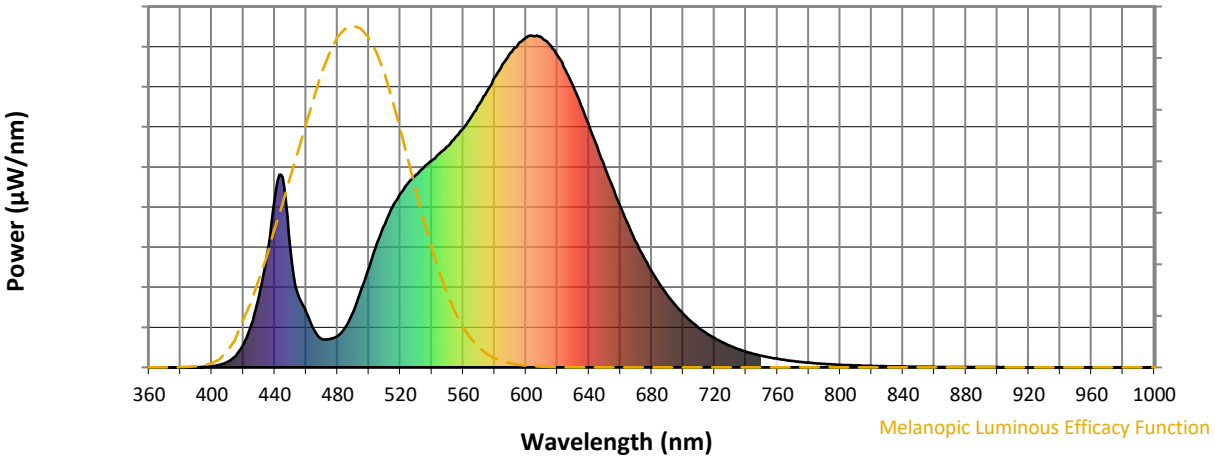
Melanopic Flux vs. Wavelength



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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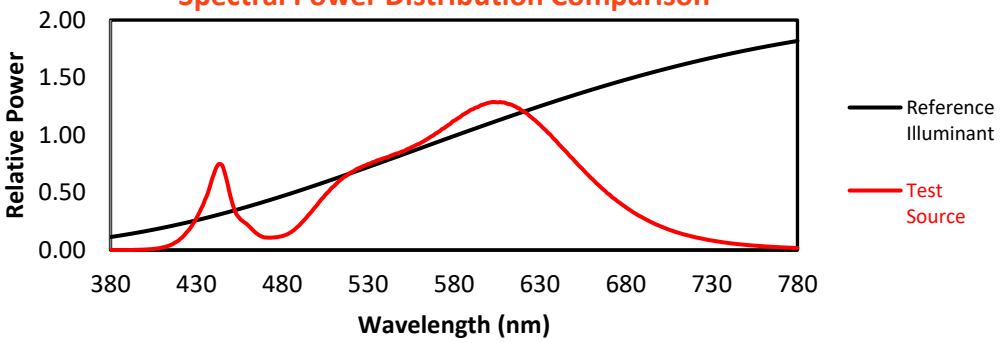
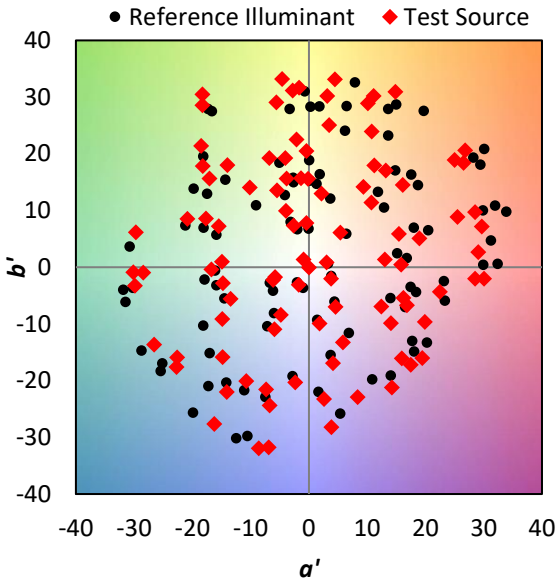
Summary

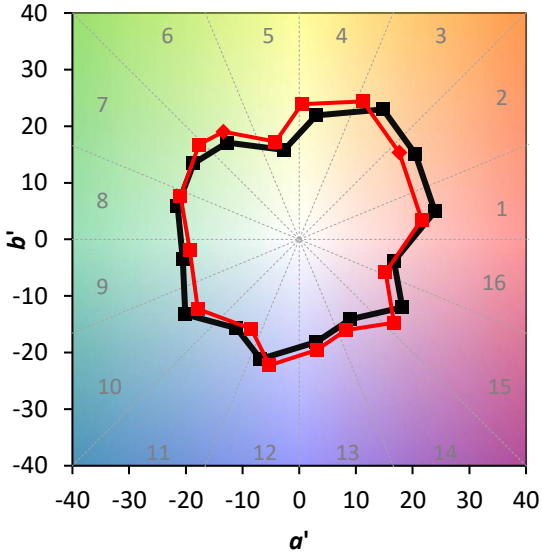
R_f = 81.5
R_g = 99.2
CIE R_a = 81.0
R_9 = 7.1

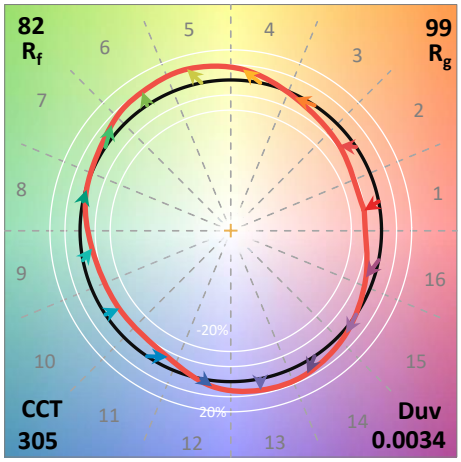
Spectral Power Distribution Comparison

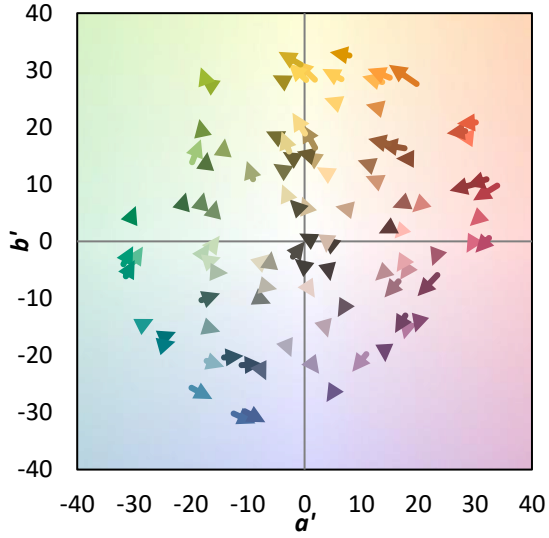


Color Vector Graphics









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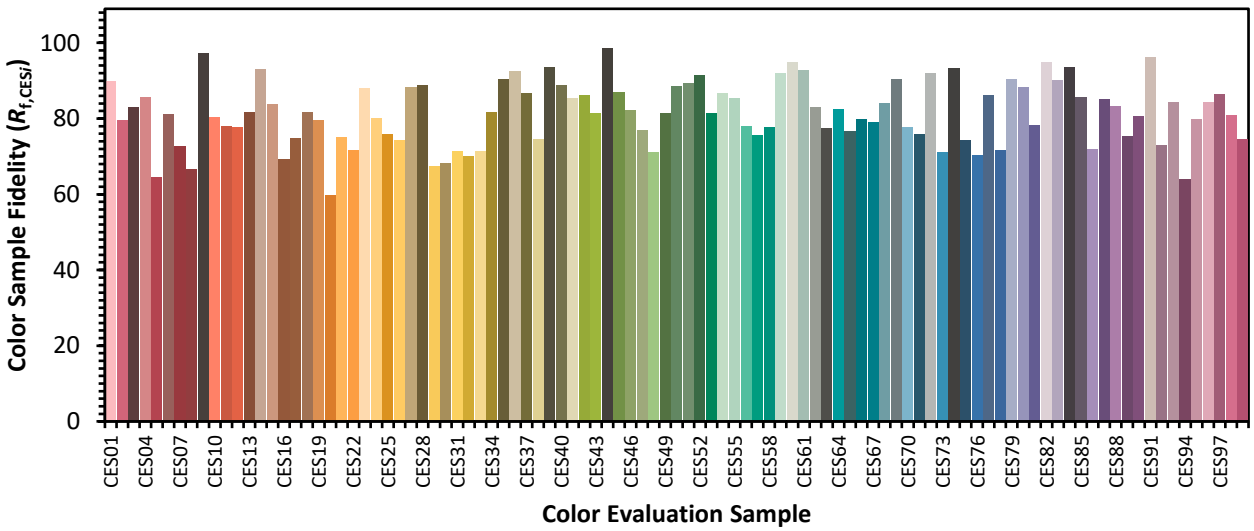
Individual Sample Fidelity Index ($R_{f,i}$)

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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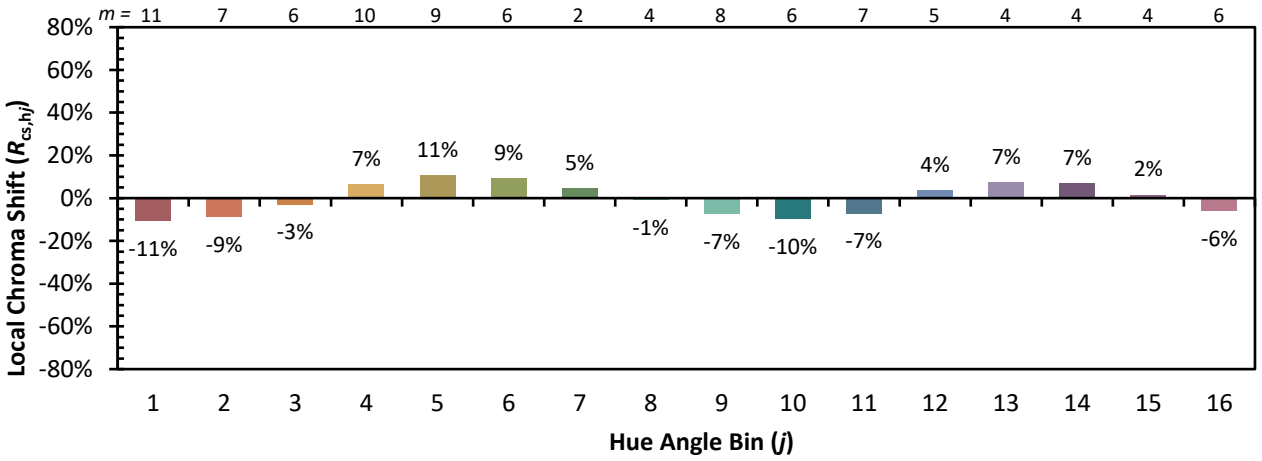
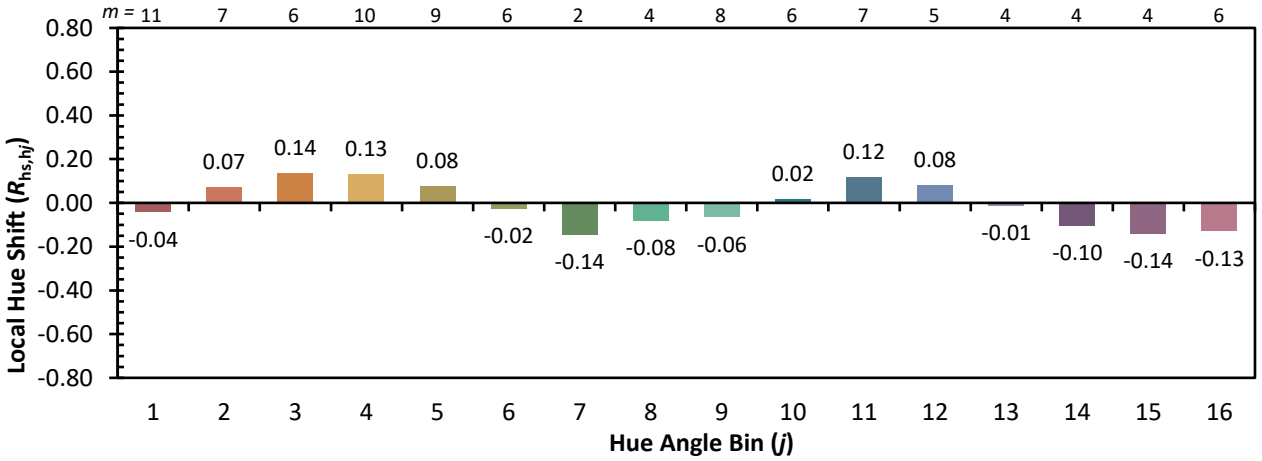
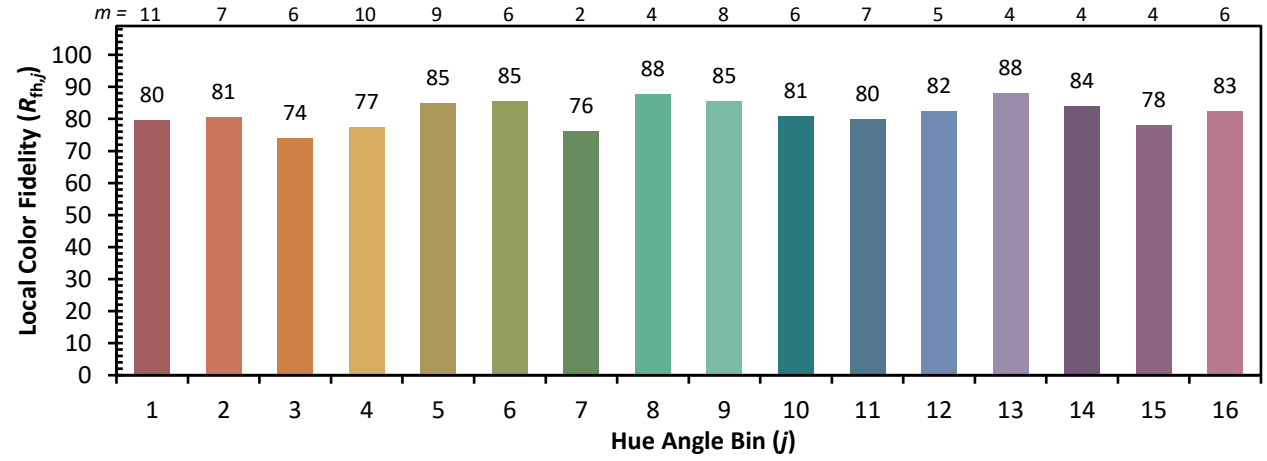
Color Rendition by Hue-Angle Bin







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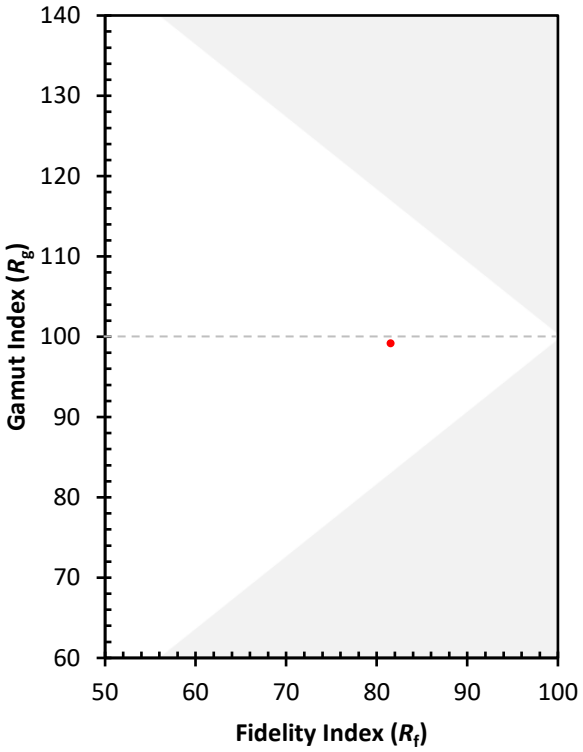
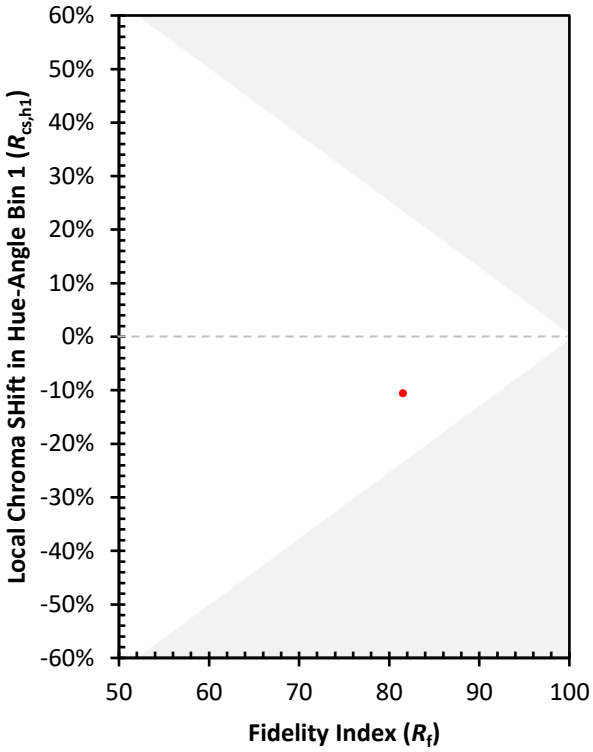
Measure Comparisons





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