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: P638985

Luminaire Tested: GWS-SA4F-830-U-T2-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:	P638985
	TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-22)
Test Lab:	COOPER LIGHTING SOLUTIONS
Issue Date:	1/10/2023
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	McGRAW-EDISON
Catalog Number:	GWS-SA4F-830-U-T2-W-HSS
Description:	GALLEON WALL SLIM LUMINAIRE. (4) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II OPTICS WITH HOUSE SIDE SHIELD
Light Source:	(64) 3000K CCT, 80 CRI LEDS
Ballast/Driver:	-

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	20246.1 lumens
Efficiency:	N/A
Efficacy:	89.9 lumens/watt
Luminous Opening:	Rectangular (W 1' x L: 1' x H: 0')
IES Classification:	Type II - Short
BUG Rating:	B1 - U0 - G3

Input Watts (W):	225.3
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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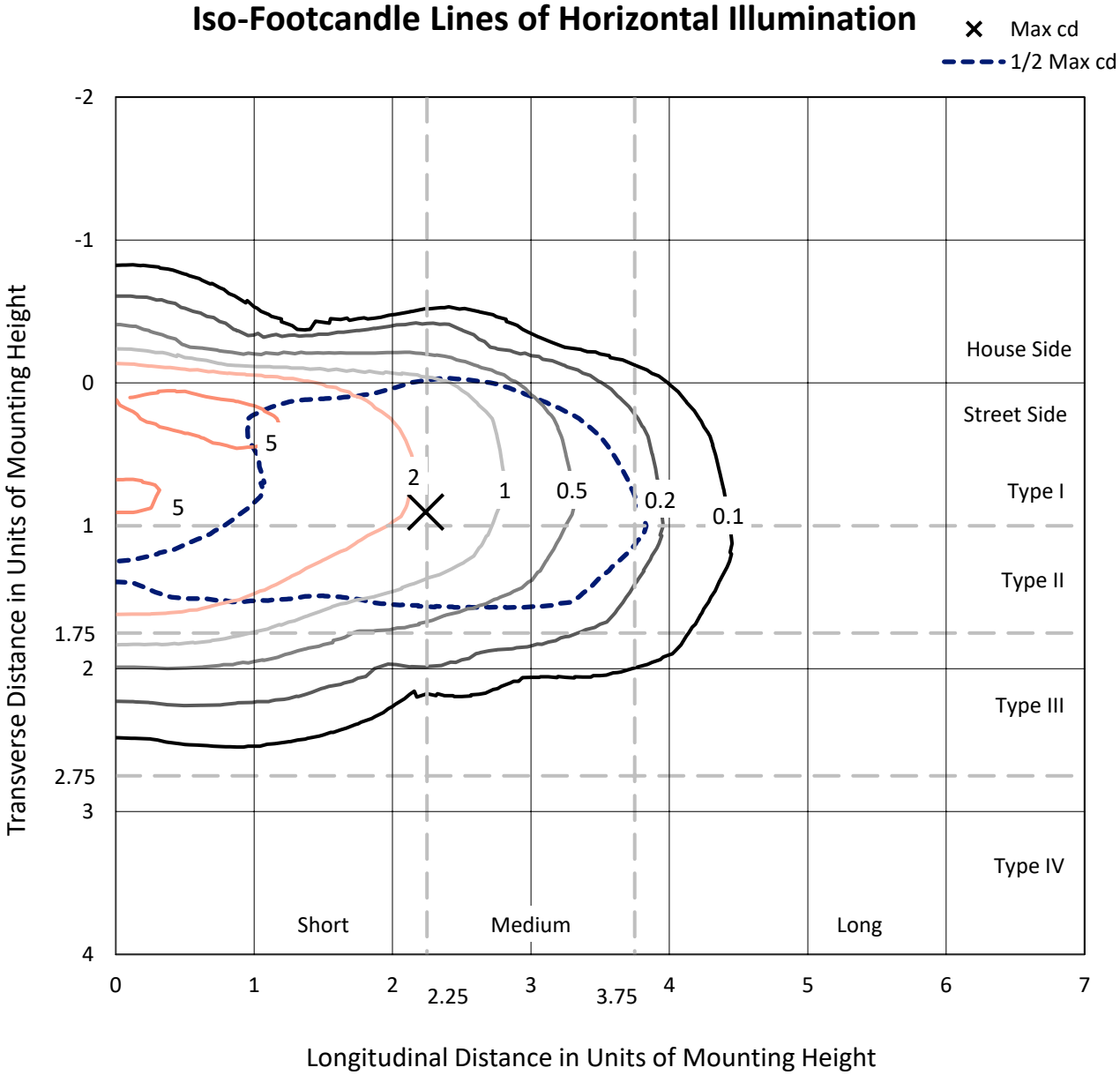
REPORT NUMBER: P638985
CATALOG NUMBER: GWS-SA4F-830-U-T2-W-HSS

Iso-Footcandle Lines of Horizontal Illumination



Based on 25 foot mounting height. Maximum calculated value = 6.1 fc
Type II - Short - N/A

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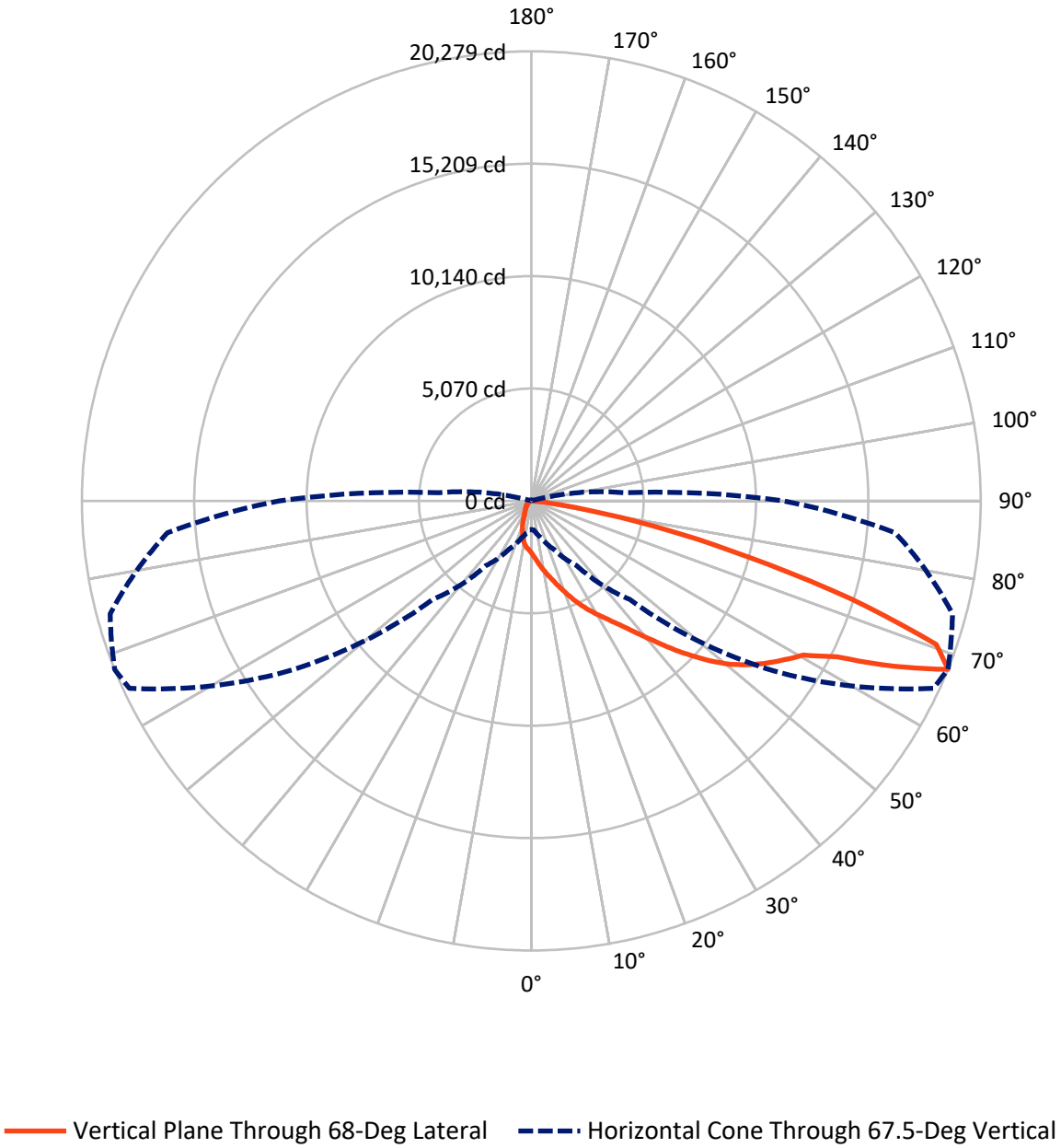
Luminous Intensity Polar Plot



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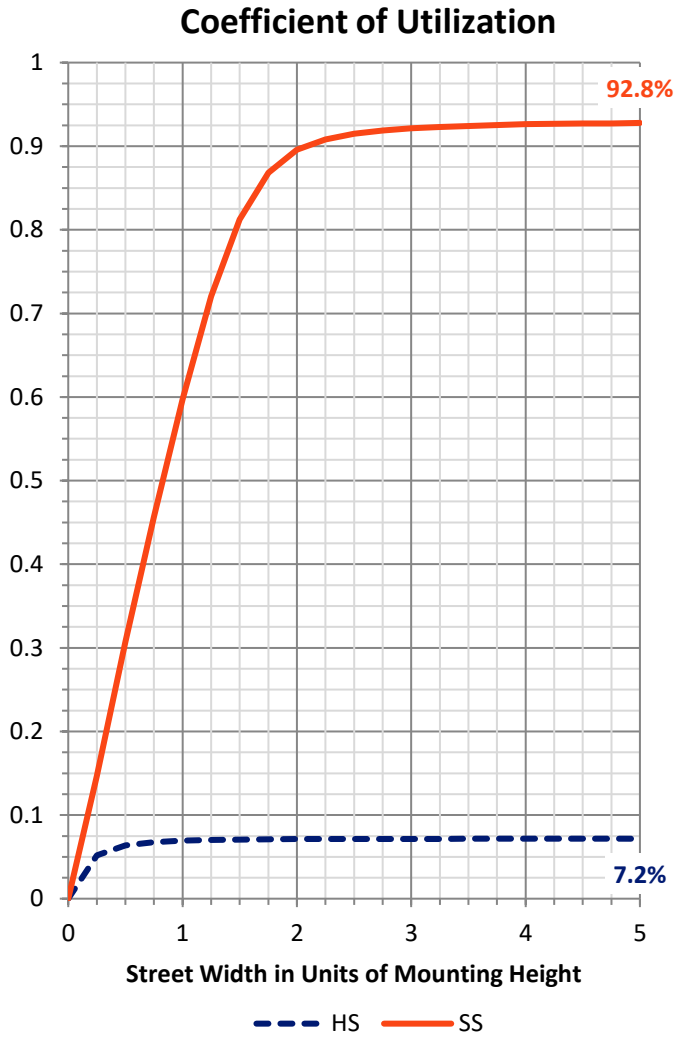
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1462.0	0.0	1462.0
	% Fixture	7.2	0.0	7.2
Street Side	Lumens	18784.1	0.0	18784.1
	% Fixture	92.8	0.0	92.8
Total	Lumens	20246.1	0.0	20246.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	229.8	1.1
10°-20°	659.9	3.3
20°-30°	1134.0	5.6
30°-40°	1971.7	9.7
40°-50°	3440.4	17.0
50°-60°	5188.9	25.6
60°-70°	5203.2	25.7
70°-80°	2295.6	11.3
80°-90°	122.6	0.6
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°	20246.1	100.0
0°-180°	20246.1	100.0



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REPORT NUMBER: P638985
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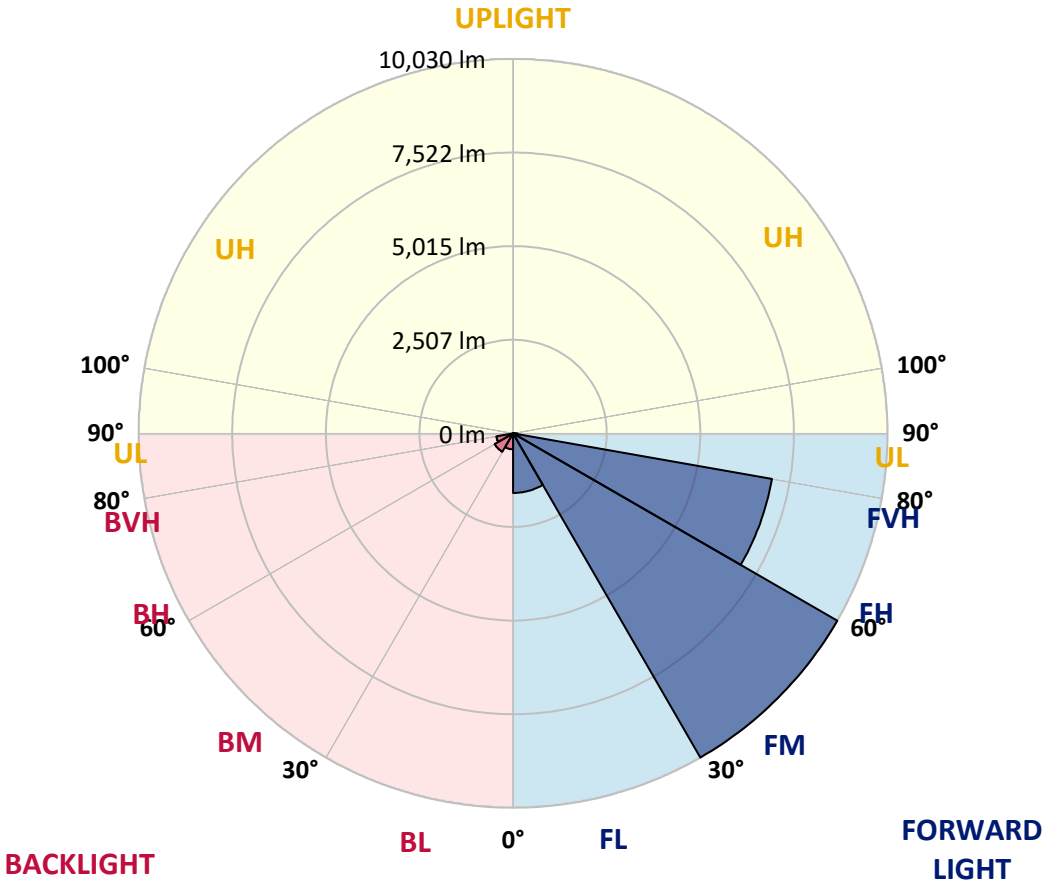
LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	1596.0	7.9			
FM	(30°-60°)	10029.9	49.5			
FH	(60°-80°)	7042.5	34.8			G3/7500
FVH	(80°-90°)	115.7	0.6			G2/225
BL	(0°-30°)	427.7	2.1	B1/500		
BM	(30°-60°)	571.1	2.8	B1/1000		
BH	(60°-80°)	456.3	2.3	B1/500		G1/500
BVH	(80°-90°)	6.9	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G3
Type II Short



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Scaled Data Report

REPORT NUMBER: P638985
CATALOG NUMBER: GWS-SA4F-830-U-T2-W-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	68°	75°	85°
0°	2356.1	2356.1	2356.1	2356.1	2356.1	2356.1	2356.1	2356.1	*2356.1*	2356.1	2356.1
2.5°	2743.7	2761.1	2743.7	2747.5	2697.2	2673.9	2623.5	2553.8	*2536.3*	2491.8	2423.9
5°	3078.9	3094.4	3076.9	3073.0	3014.9	2972.3	2889.0	2768.8	*2734.0*	2646.8	2513.1
7.5°	3261.0	3270.7	3276.5	3286.2	3264.9	3230.0	3154.4	3005.2	*2968.4*	2827.0	2639.0
10°	3280.4	3288.1	3317.2	3375.3	3417.9	3439.3	3396.6	3259.1	*3200.9*	3063.4	2794.0
12.5°	3226.1	3237.7	3284.2	3381.1	3499.3	3607.8	3635.0	3514.8	*3462.5*	3286.2	2976.2
15°	3154.4	3164.1	3228.1	3359.8	3538.1	3737.6	3850.0	3797.7	*3739.6*	3555.5	3177.7
17.5°	3044.0	3057.5	3146.7	3324.9	3555.5	3840.3	4082.5	4100.0	*4059.3*	3859.7	3400.5
20°	2982.0	2991.7	3071.1	3255.2	3543.9	3915.9	4299.6	4464.2	*4419.7*	4210.4	3656.3
22.5°	3034.3	3042.0	3094.4	3237.7	3505.1	3958.5	4501.1	4828.5	*4803.3*	4586.3	3925.6
25°	3309.4	3334.6	3303.6	3328.8	3522.6	3981.8	4663.8	5192.8	*5198.6*	4979.7	4204.6
27.5°	3867.5	3834.5	3760.9	3635.0	3658.2	4043.8	4803.3	5535.7	*5586.1*	5363.3	4452.6
30°	4435.2	4415.8	4371.2	4175.5	4012.8	4181.4	4921.5	5886.5	*5965.9*	5741.1	4673.5
32.5°	5072.7	5092.0	5012.6	4778.1	4501.1	4460.4	5043.6	6219.7	*6368.9*	6169.3	4933.1
35°	5834.1	5840.0	5683.0	5423.4	5109.5	4921.5	5262.5	6587.9	*6863.0*	6715.7	5280.0
37.5°	6576.2	6611.1	6525.9	6117.0	5838.0	5495.1	5624.9	7060.6	*7448.2*	7390.0	5715.9
40°	7233.1	7287.3	7260.2	6864.9	6498.7	6210.0	6186.8	7614.8	*8155.4*	8221.3	6291.4
42.5°	7756.2	7791.1	7812.4	7531.5	7207.9	7045.1	6880.4	8258.1	*8990.5*	9259.8	6996.7
45°	8308.5	8320.1	8364.7	8174.8	7891.9	7905.4	7700.1	9038.9	*9870.2*	10410.8	7806.6
47.5°	9011.8	9050.6	9029.3	8829.7	8573.9	8727.0	8546.8	9843.0	*10738.2*	11639.2	8635.9
50°	9868.2	9908.9	9889.6	9657.0	9372.2	9436.2	9323.8	10623.9	*11575.3*	12797.9	9325.7
52.5°	10310.0	10343.0	10583.2	10687.8	10538.6	10131.8	9986.4	11482.3	*12282.5*	13751.2	9959.3
55°	10096.9	10120.1	10643.3	11085.1	11631.5	11224.6	10653.0	12144.9	*12906.4*	14495.2	10430.1
57.5°	9213.3	9339.3	10050.4	10798.3	11947.3	12303.8	11734.2	12865.7	*13507.1*	15012.6	10893.2
60°	7401.7	7395.8	8415.0	9757.8	11331.1	12600.3	13261.0	13840.3	*14109.7*	15409.8	11513.3
62.5°	4090.3	4127.1	5483.4	7252.5	9618.3	11833.0	14406.1	15524.1	*15483.4*	16103.5	12484.0
65°	2036.4	2110.1	2846.3	4154.2	6399.9	9779.1	14603.8	18093.4	*17977.1*	17736.9	14489.4
67.5°	*1292.4*	*1321.4*	*1728.3*	*2414.3*	*3557.4*	*6285.6*	*13373.4*	*20009.7*	*20279.0*	*19674.5*	*16479.4*
70°	837.0	885.5	1201.3	1650.8	2146.9	3239.7	9796.5	18767.7	*19385.8*	19461.3	15239.3
72.5°	455.3	490.2	767.3	1178.1	1550.1	1619.8	5502.8	14084.5	*15078.5*	16508.4	11922.1
75°	259.6	284.8	420.5	800.2	1137.4	986.2	2439.4	9428.4	*10062.0*	11798.1	8542.9
77.5°	156.9	178.3	236.4	389.5	713.0	658.8	922.3	5739.2	*6142.2*	7039.3	4483.6
80°	71.7	85.3	149.2	215.1	389.5	312.0	352.6	2675.8	*2763.0*	2889.0	1484.2
82.5°	32.9	38.8	67.8	127.9	220.9	180.2	135.6	618.1	*870.0*	823.5	377.8
85°	3.9	3.9	25.2	52.3	62.0	46.5	56.2	139.5	*176.3*	248.0	108.5
87.5°	0.0	0.0	1.9	1.9	3.9	5.8	11.6	17.4	*25.2*	40.7	27.1
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: P638985
CATALOG NUMBER: GWS-SA4F-830-U-T2-W-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2356.1	2356.1	2356.1	2356.1	2356.1	2356.1	2356.1	2356.1	2356.1	2356.1	2356.1
2.5°	2392.9	2338.7	2290.3	2218.6	2170.1	2115.9	2079.1	2034.5	2017.0	2003.5	1984.1
5°	2447.2	2360.0	2241.8	2110.1	2001.5	1898.9	1803.9	1741.9	1687.7	1679.9	1652.8
7.5°	2536.3	2406.5	2206.9	1991.9	1807.8	1637.3	1503.6	1395.1	1340.8	1323.4	1292.4
10°	2654.5	2476.3	2154.6	1825.2	1559.8	1356.3	1205.2	1083.1	997.9	966.9	943.6
12.5°	2786.3	2540.2	2071.3	1619.8	1317.6	1085.1	893.2	763.4	709.2	689.8	672.3
15°	2937.4	2600.3	1939.5	1414.5	1081.2	798.3	662.7	606.5	583.2	577.4	571.6
17.5°	3082.7	2639.0	1782.6	1201.3	831.2	620.0	556.1	534.8	529.0	523.2	519.3
20°	3247.4	2666.1	1598.5	999.8	645.2	525.1	494.1	478.6	467.0	455.3	453.4
22.5°	3416.0	2666.1	1399.0	802.2	540.6	470.8	436.0	406.9	385.6	374.0	370.1
25°	3576.8	2629.3	1201.3	641.3	476.7	418.5	374.0	341.0	312.0	298.4	294.5
27.5°	3691.1	2534.4	1028.9	542.5	432.1	372.0	317.8	281.0	257.7	244.1	242.2
30°	3762.8	2392.9	870.0	484.4	393.3	323.6	269.3	238.3	220.9	211.2	207.3
32.5°	3817.1	2218.6	728.5	443.7	356.5	281.0	234.5	209.3	193.8	186.0	184.1
35°	3925.6	2053.9	623.9	406.9	317.8	246.1	205.4	186.0	174.4	164.7	162.8
37.5°	4076.7	1916.3	540.6	374.0	281.0	218.9	186.0	168.6	158.9	149.2	147.3
40°	4299.6	1829.1	478.6	341.0	248.0	197.6	170.5	155.0	141.4	131.8	129.8
42.5°	4642.5	1788.4	437.9	308.1	218.9	178.3	156.9	137.6	124.0	114.3	112.4
45°	5051.3	1809.7	403.0	275.1	199.6	164.7	139.5	120.1	106.6	96.9	94.9
47.5°	5489.2	1885.3	374.0	244.1	180.2	151.1	124.0	102.7	91.1	81.4	79.4
50°	5946.5	2009.3	348.8	215.1	164.7	135.6	106.6	89.1	77.5	69.8	67.8
52.5°	6343.7	2177.9	323.6	193.8	151.1	120.1	93.0	77.5	65.9	58.1	56.2
55°	6723.5	2336.8	304.2	174.4	135.6	104.6	81.4	65.9	56.2	48.4	46.5
57.5°	7136.2	2505.3	281.0	156.9	122.1	93.0	71.7	56.2	48.4	40.7	38.8
60°	7736.9	2755.3	246.1	143.4	106.6	81.4	62.0	50.4	42.6	32.9	31.0
62.5°	8603.0	3210.6	207.3	124.0	91.1	69.8	52.3	42.6	34.9	27.1	23.3
65°	10222.8	3985.7	170.5	102.7	73.6	58.1	44.6	34.9	27.1	19.4	17.4
67.5°	*11389.3*	*4187.2*	*137.6*	*83.3*	*60.1*	*44.6*	*36.8*	*27.1*	*19.4*	*13.6*	*11.6*
70°	9957.4	3007.2	106.6	67.8	50.4	34.9	29.1	21.3	13.6	9.7	7.8
72.5°	7502.4	1964.7	79.4	52.3	38.8	29.1	21.3	17.4	11.6	7.8	5.8
75°	5287.7	1135.4	58.1	38.8	27.1	21.3	17.4	13.6	9.7	5.8	5.8
77.5°	2710.7	468.9	40.7	27.1	19.4	13.6	11.6	7.8	7.8	5.8	3.9
80°	823.5	155.0	23.3	17.4	13.6	9.7	5.8	5.8	5.8	3.9	1.9
82.5°	187.9	50.4	13.6	13.6	9.7	7.8	5.8	1.9	1.9	0.0	0.0
85°	48.4	15.5	11.6	9.7	9.7	7.8	3.9	1.9	0.0	0.0	0.0
87.5°	17.4	9.7	9.7	9.7	7.8	5.8	3.9	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

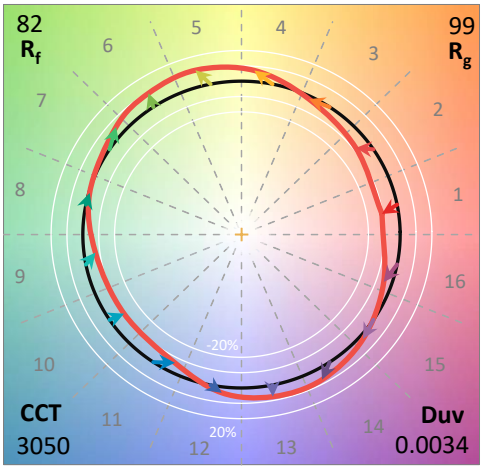
Test Information

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

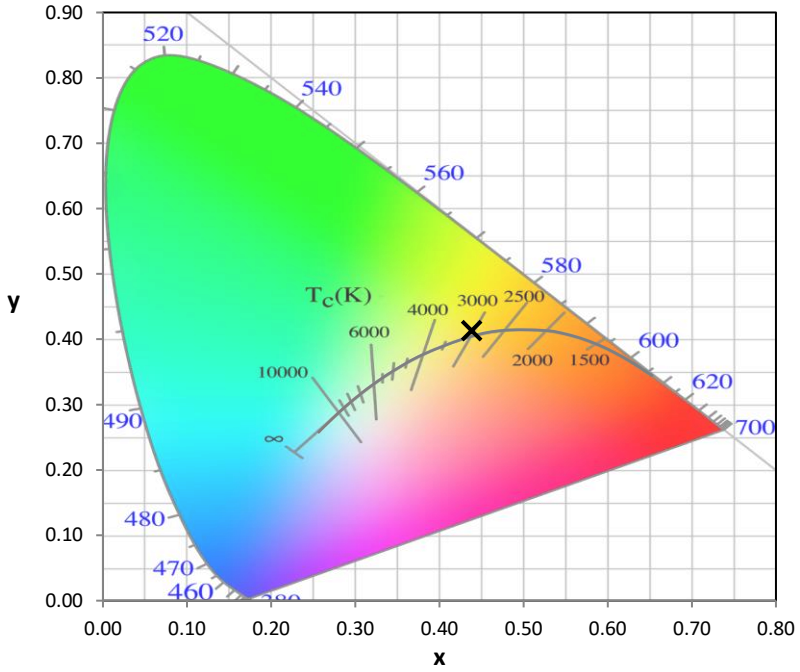
Stabilization Time:	20M
Operation Time:	1H 20M
Sphere Temperature (°C):	24.2

REPORT NUMBER: SP1-2408-195-9

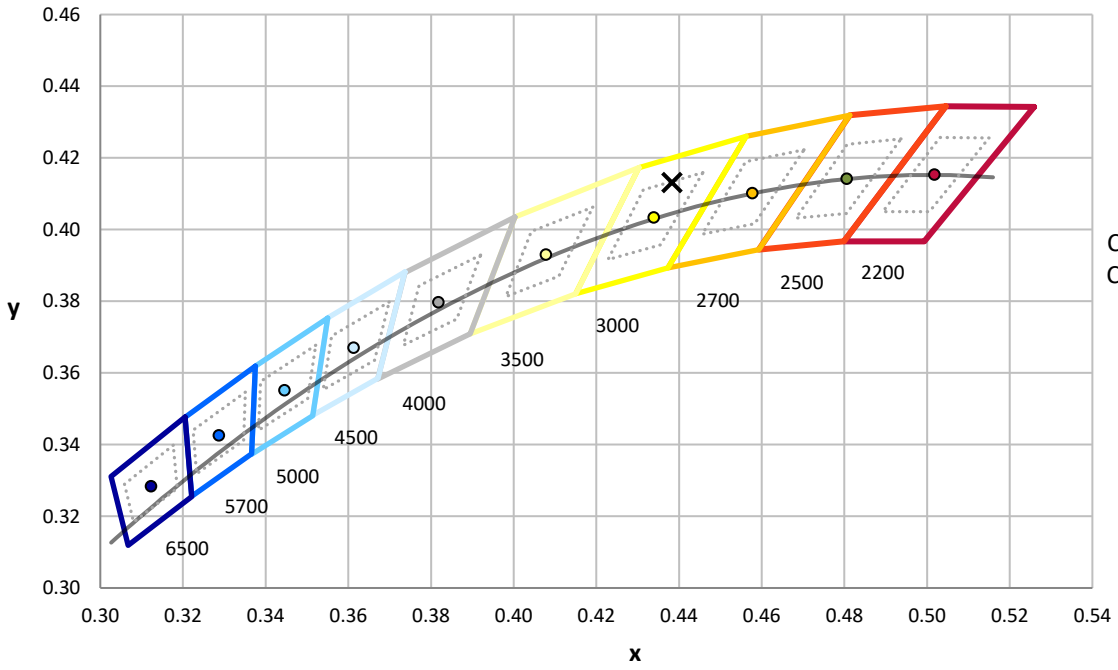
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

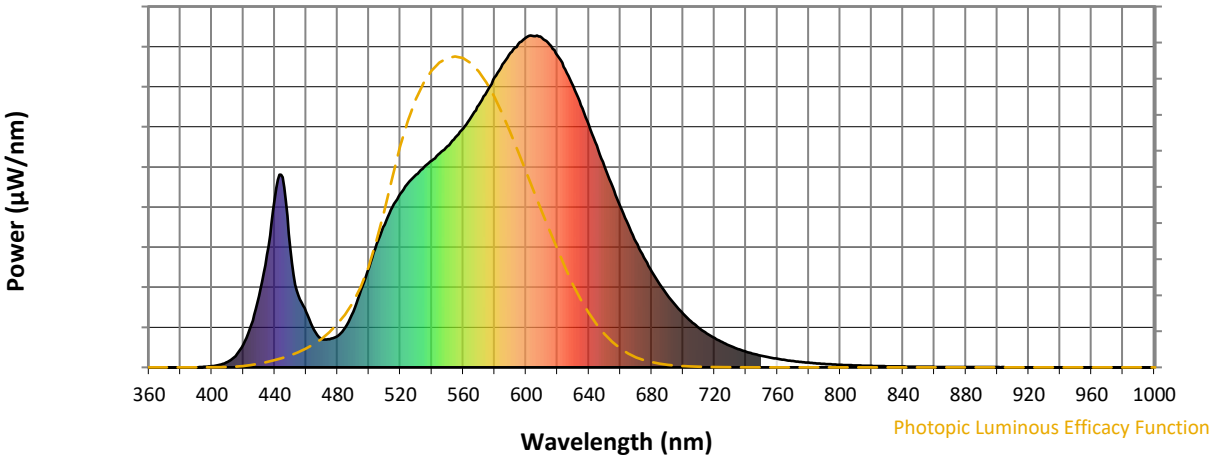


CCT = 3050K
CIE x = 0.4383
CIE y = 0.4131
Duv = 0.0034

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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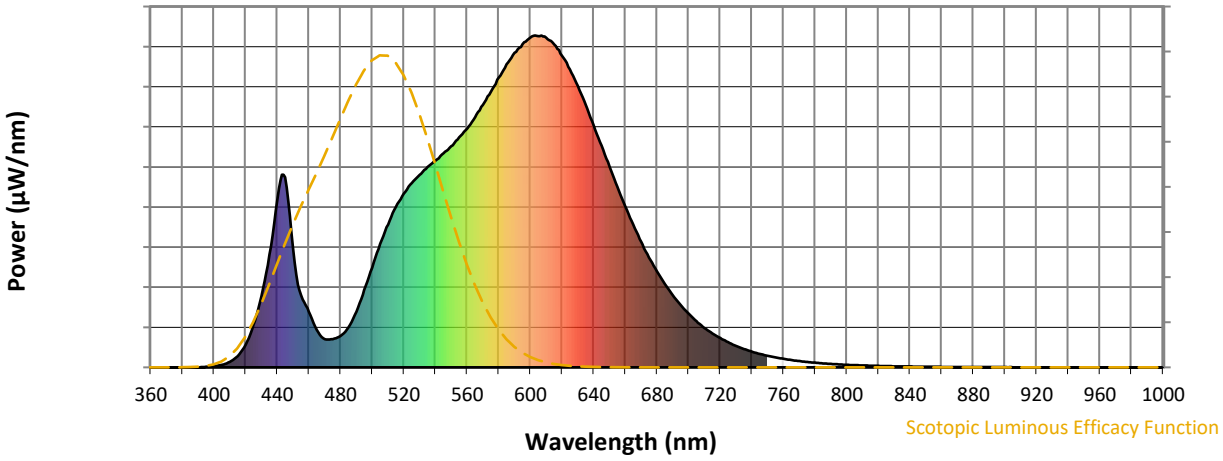
Scotopic Flux vs. Wavelength



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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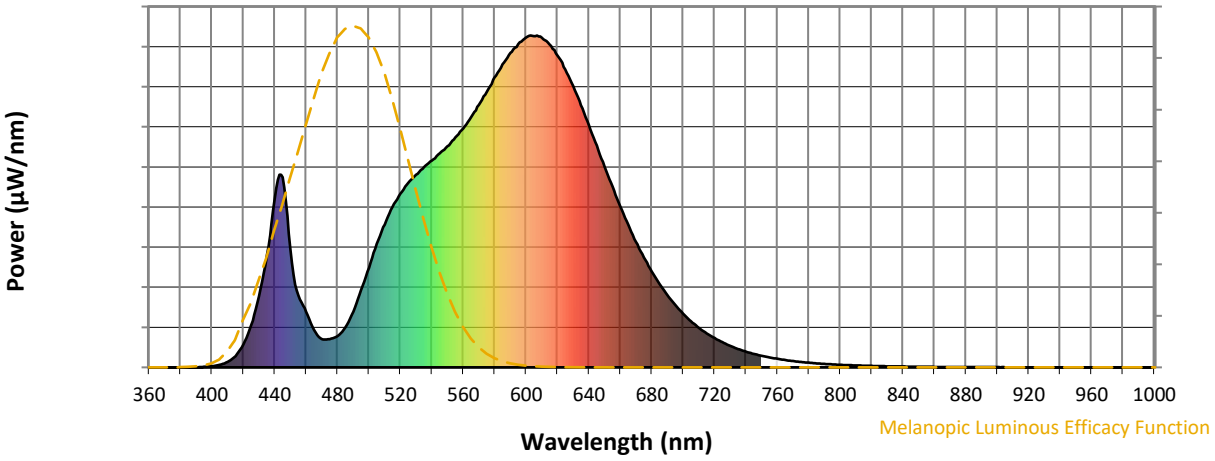
Melanopic Flux vs. Wavelength



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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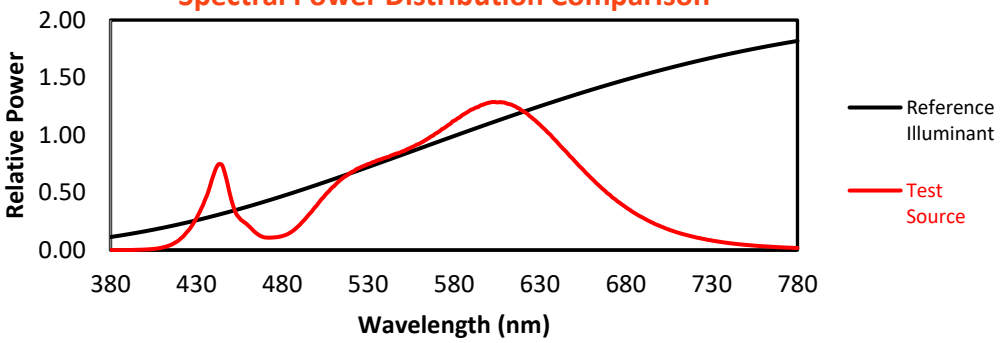
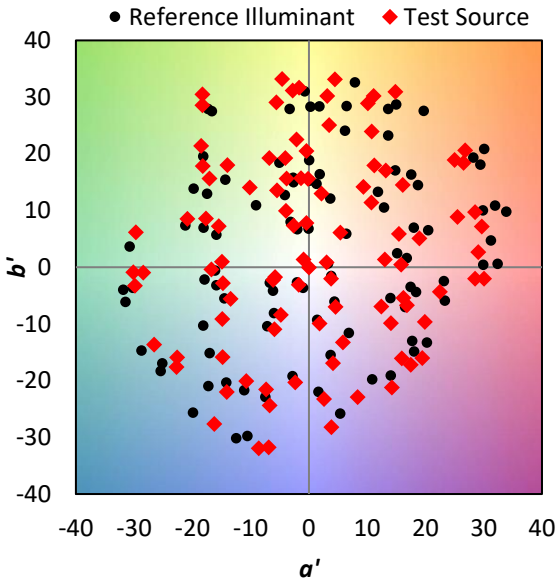
Summary

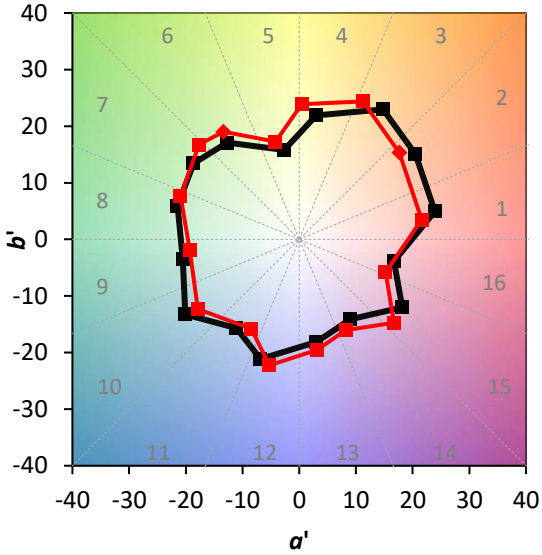
R_f = 81.5
R_g = 99.2
CIE R_a = 81.0
R_9 = 7.1

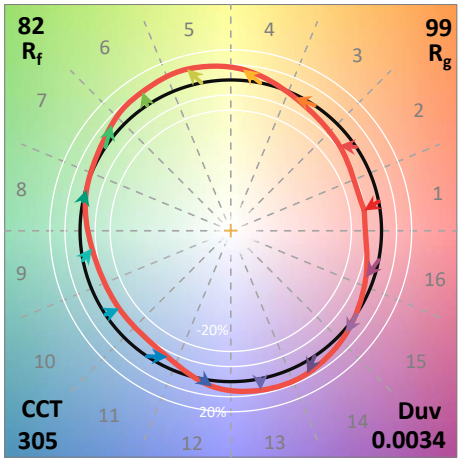
Spectral Power Distribution Comparison

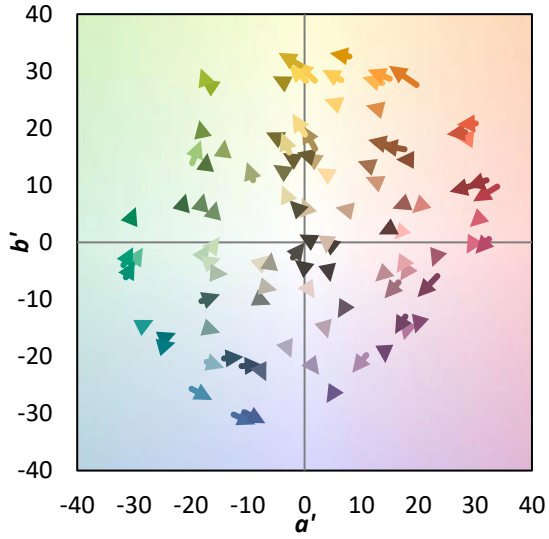


Color Vector Graphics









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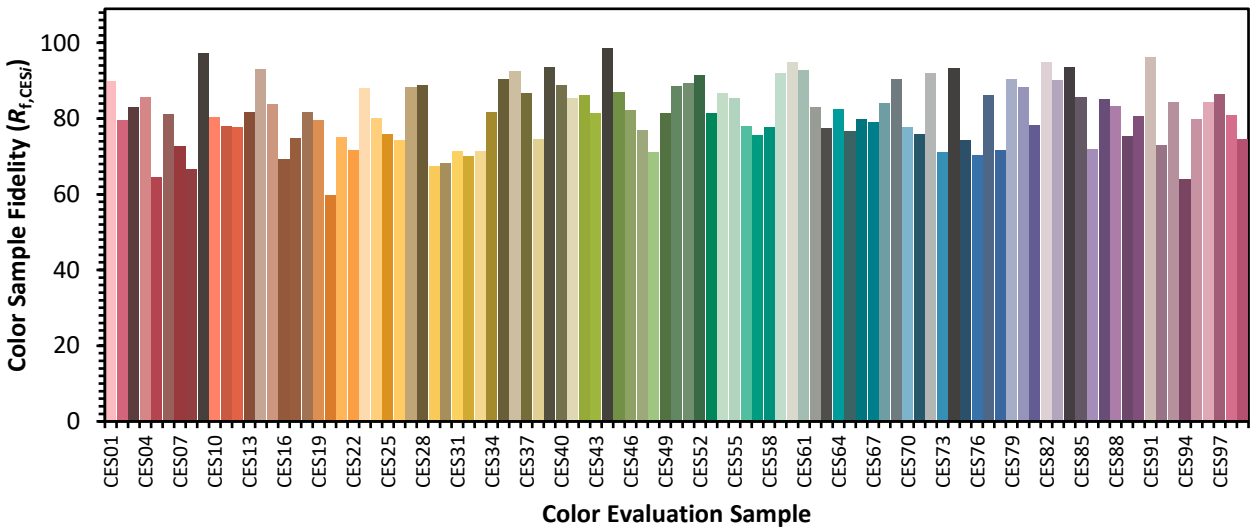
Individual Sample Fidelity Index ($R_{f,i}$)

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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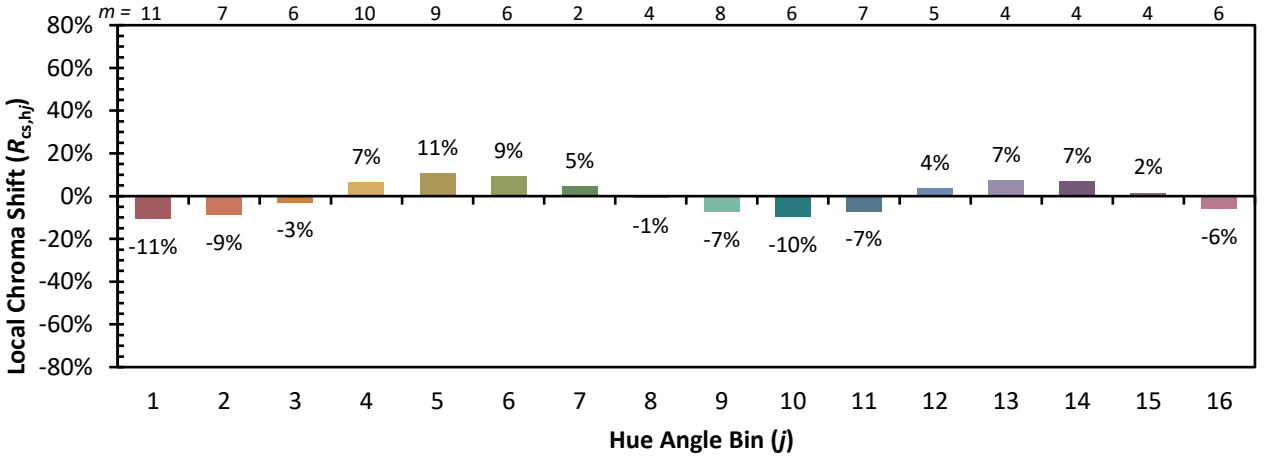
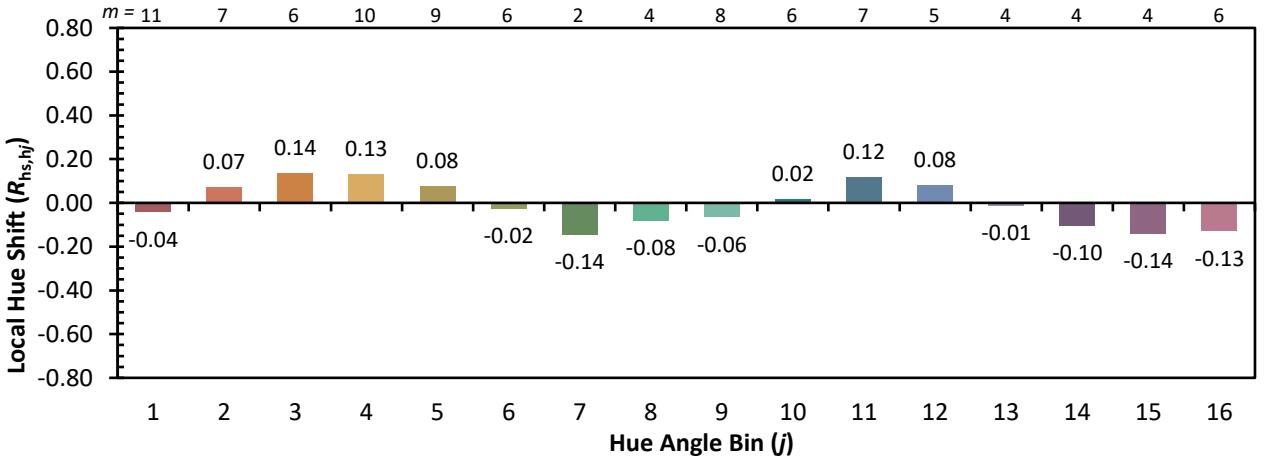
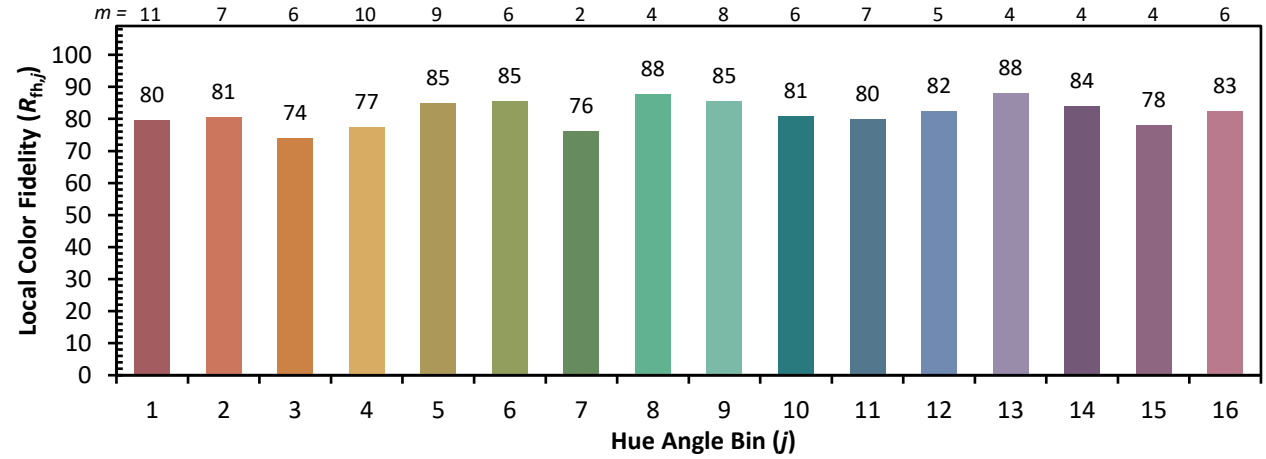
Color Rendition by Hue-Angle Bin







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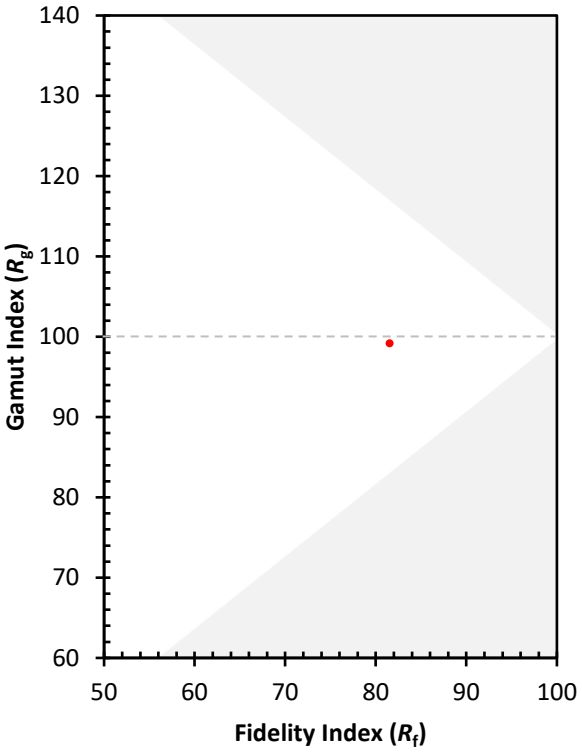
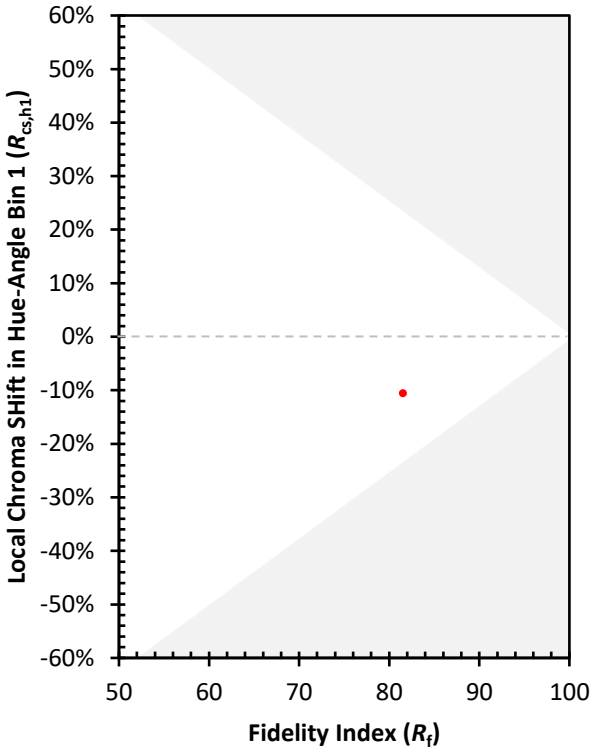
Measure Comparisons





(END OF REPORT)