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: P638968

Luminaire Tested: GWS-SA4F-830-U-SL3-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:	P638968
	TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-32)
Test Lab:	COOPER LIGHTING SOLUTIONS
Issue Date:	1/10/2023
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	McGRAW-EDISON
Catalog Number:	GWS-SA4F-830-U-SL3-W-GRSBK
Description:	GALLEON WALL SLIM LUMINAIRE. (4) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III SPILL LIGHT ELIMINATOR OPTICS W/ FACTORY INSTALLED GLARE SHIELD, BK
Light Source:	(64) 3000K CCT, 80 CRI LEDS
Ballast/Driver:	-

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	15809 lumens
Efficiency:	N/A
Efficacy:	70.2 lumens/watt
Luminous Opening:	Rectangular (W 1' x L: 1' x H: 0')
IES Classification:	Type II - Short
BUG Rating:	B3 - U0 - G1

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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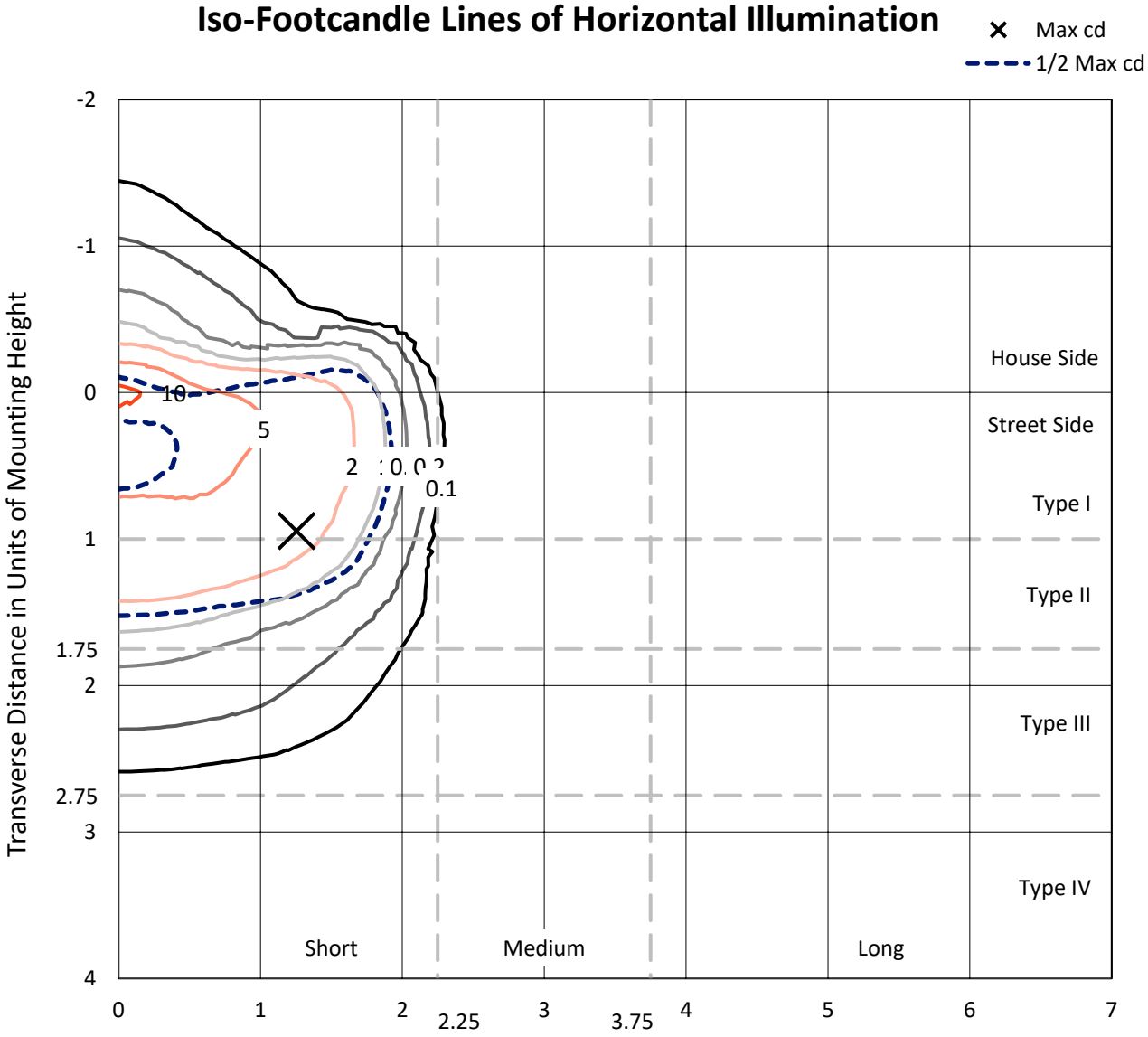
Scaled Data Report

REPORT NUMBER: P638968
CATALOG NUMBER: GWS-SA4F-830-U-SL3-W-GRSBK

Iso-Footcandle Lines of Horizontal Illumination



Based on 25 foot mounting height. Maximum calculated value = 11.1 fc
Type II - Short - N/A

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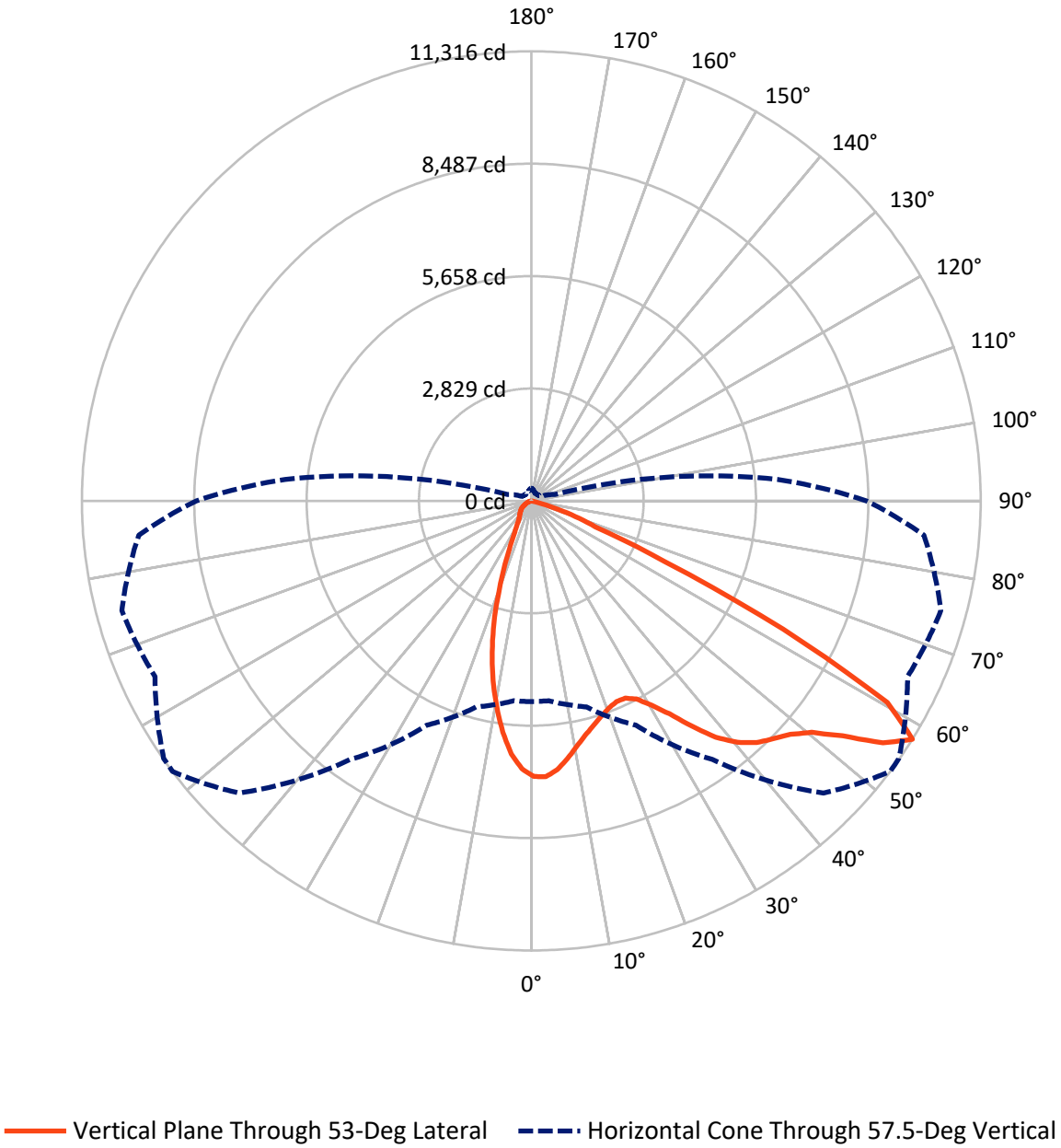
Luminous Intensity Polar Plot



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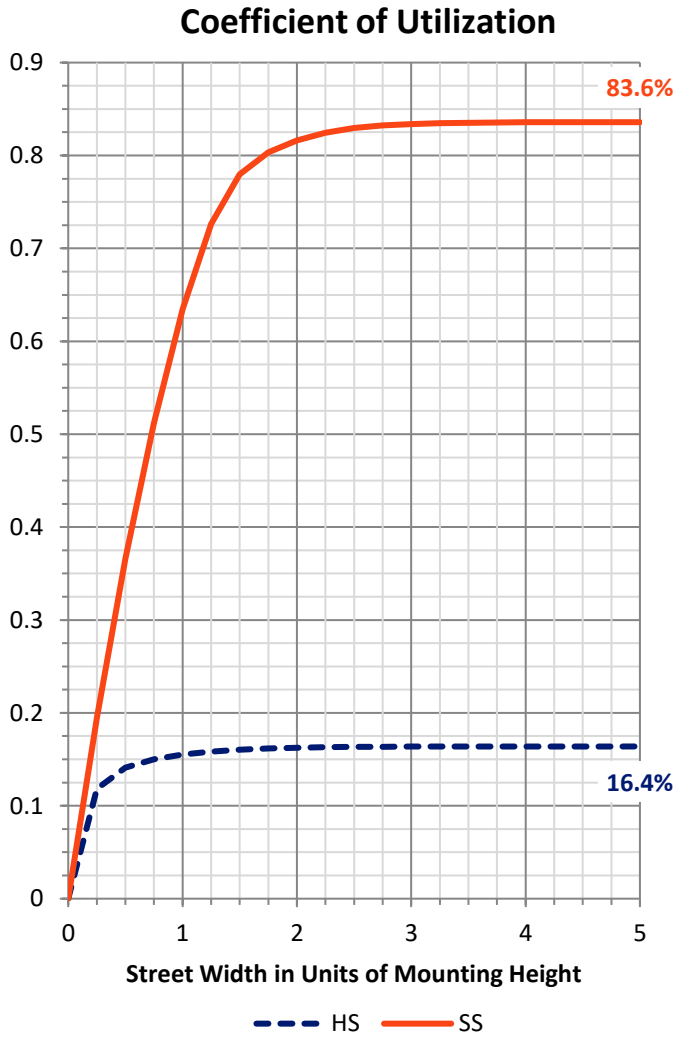
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2611.4	0.0	2611.4
	% Fixture	16.5	0.0	16.5
Street Side	Lumens	13197.6	0.0	13197.6
	% Fixture	83.5	0.0	83.5
Total	Lumens	15809.0	0.0	15809.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	593.3	3.8
10°-20°	1302.6	8.2
20°-30°	1696.9	10.7
30°-40°	2461.4	15.6
40°-50°	3551.6	22.5
50°-60°	4295.3	27.2
60°-70°	1750.6	11.1
70°-80°	157.3	1.0
80°-90°	0.0	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°	15809.0	100.0
0°-180°	15809.0	100.0



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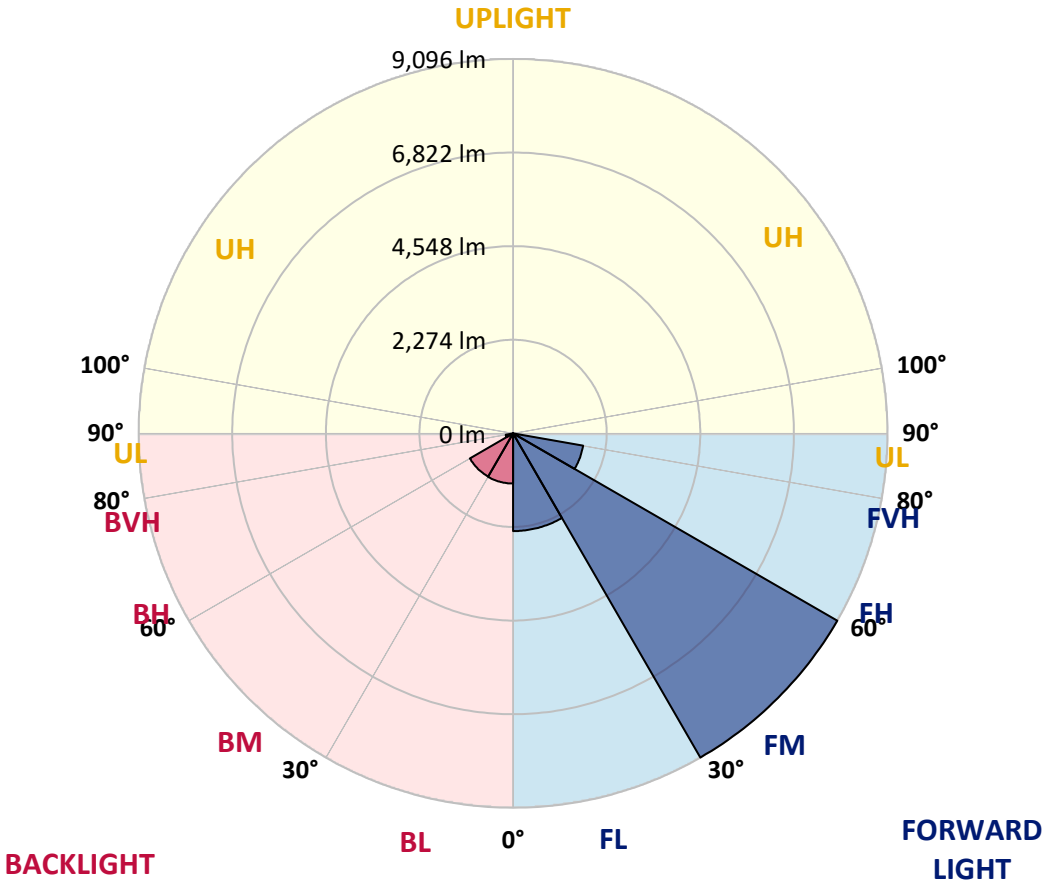
LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	2374.0	15.0			
FM	(30°-60°)	9096.2	57.5			
FH	(60°-80°)	1727.4	10.9			G1/1800
FVH	(80°-90°)	0.0	0.0			G0/10
BL	(0°-30°)	1218.8	7.7	B3/2500		
BM	(30°-60°)	1212.1	7.7	B2/2500		
BH	(60°-80°)	180.5	1.1	B1/500		G1/500
BVH	(80°-90°)	0.0	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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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	53°	55°	65°	75°	85°
0°	6934.7	6934.7	6934.7	6934.7	6934.7	6934.7	6934.7	6934.7	6934.7	6934.7	6934.7
2.5°	6837.8	6853.3	6880.5	6915.4	6938.6	6950.2	6950.2	6983.2	6961.9	6944.4	6925.0
5°	6545.3	6560.8	6597.6	6653.8	6710.0	6750.7	6797.2	6832.0	6845.6	6845.6	6812.7
7.5°	6132.6	6153.9	6177.1	6254.6	6376.7	6467.8	6547.2	6597.6	6671.2	6694.5	6648.0
10°	5688.8	5710.2	5762.5	5869.0	6008.5	6144.2	6279.8	6343.8	6469.7	6535.6	6483.3
12.5°	5312.9	5322.6	5392.4	5520.3	5698.5	5884.5	6049.2	6115.1	6293.4	6392.2	6330.2
15°	5002.9	5008.7	5078.5	5219.9	5425.3	5654.0	5861.3	5929.1	6148.1	6297.3	6204.2
17.5°	4768.5	4770.4	4830.5	4983.5	5198.6	5452.5	5698.5	5781.8	6064.7	6244.9	6105.4
20°	4650.3	4644.5	4687.1	4820.8	5024.2	5278.1	5568.7	5671.4	6018.2	6237.2	6029.9
22.5°	4652.2	4638.7	4656.1	4751.0	4923.5	5161.8	5487.3	5603.6	6022.1	6270.1	5965.9
25°	4762.7	4743.3	4747.2	4797.5	4919.6	5136.6	5499.0	5623.0	6099.6	6380.6	5942.7
27.5°	4948.7	4927.4	4927.4	4952.5	5018.4	5216.1	5644.3	5785.7	6306.9	6595.6	5991.1
30°	5188.9	5167.6	5159.9	5185.1	5239.3	5421.5	5967.9	6115.1	6661.5	6948.3	6146.1
32.5°	5464.1	5438.9	5452.5	5487.3	5539.6	5791.5	6384.4	6580.1	7105.2	7423.0	6425.1
35°	5754.7	5733.4	5795.4	5871.0	5952.4	6305.0	6959.9	7130.4	7649.7	8014.0	6851.4
37.5°	6031.8	6022.1	6151.9	6310.8	6479.4	6921.2	7545.1	7676.8	8116.7	8657.3	7372.6
40°	6308.9	6306.9	6529.8	6808.8	7078.1	7535.4	7988.8	8097.3	8401.5	9157.2	7872.5
42.5°	6618.9	6618.9	6927.0	7299.0	7657.5	8054.7	8314.3	8362.8	8529.4	9445.9	8248.4
45°	6915.4	6932.8	7289.3	7721.4	8145.7	8459.6	8539.1	8543.0	8581.7	9616.4	8560.4
47.5°	7149.8	7165.3	7591.6	8089.5	8546.8	8767.7	8779.3	8761.9	8719.3	9779.1	8800.7
50°	7339.7	7362.9	7808.6	8335.6	8822.0	9064.2	9153.3	9135.9	9027.4	9953.5	8969.2
52.5°	7432.7	7465.6	7884.2	8457.7	9128.1	9571.8	9819.8	9860.5	9488.5	10050.4	9130.0
55°	6688.7	6737.1	7122.7	7907.4	9298.6	10356.6	10746.0	10738.3	9988.4	10339.1	9521.4
57.5°	5051.4	5047.5	5367.2	6225.6	7942.3	10401.1	11315.7	11300.2	10455.4	10674.3	9922.5
60°	3439.3	3416.0	3501.3	3915.9	5553.2	8473.2	10298.4	10507.7	10124.0	9860.5	8424.8
62.5°	2830.9	2809.5	2782.4	2668.1	3189.3	5278.1	7114.9	7432.7	7382.3	6853.3	5283.9
65°	2317.4	2334.8	2410.4	2362.0	2218.6	2706.8	3693.1	3881.0	3547.8	2985.9	1846.5
67.5°	1709.0	1716.7	1815.5	2071.3	1993.8	1802.0	1738.0	1769.0	1036.6	476.7	308.1
70°	1009.5	1015.3	1106.4	1449.3	1617.9	1383.5	1174.2	1156.8	410.8	127.9	139.5
72.5°	571.6	560.0	577.4	689.8	881.6	734.4	604.5	550.3	124.0	71.7	71.7
75°	271.3	263.5	226.7	213.1	193.8	124.0	77.5	65.9	31.0	29.1	29.1
77.5°	1.9	5.8	3.9	5.8	5.8	3.9	1.9	1.9	5.8	5.8	7.8
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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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CATALOG NUMBER: GWS-SA4F-830-U-SL3-W-GRSBK

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	6934.7	6934.7	6934.7	6934.7	6934.7	6934.7	6934.7	6934.7	6934.7	6934.7	6934.7
2.5°	6890.2	6832.0	6818.5	6814.6	6760.3	6702.2	6642.1	6618.9	6584.0	6562.7	6580.1
5°	6760.3	6677.0	6603.4	6535.6	6415.4	6283.7	6169.4	6095.7	6026.0	5979.5	5991.1
7.5°	6576.3	6467.8	6299.2	6126.7	5905.9	5708.2	5487.3	5351.7	5225.8	5156.0	5188.9
10°	6380.6	6237.2	5967.9	5675.3	5328.4	5018.4	4702.6	4444.9	4295.7	4154.2	4169.8
12.5°	6188.7	5998.9	5595.8	5152.1	4714.2	4256.9	3780.3	3423.8	3179.6	3003.3	2976.2
15°	6010.5	5766.3	5233.5	4648.3	4051.6	3443.1	2834.7	2325.1	2042.2	1867.9	1856.2
17.5°	5851.6	5549.3	4857.6	4121.3	3373.4	2594.5	1895.0	1513.3	1350.5	1275.0	1267.2
20°	5698.5	5330.4	4474.0	3586.5	2633.2	1821.4	1307.9	1131.6	1079.3	1048.3	1052.1
22.5°	5551.3	5092.1	4070.9	2993.6	1974.4	1278.8	1013.4	945.6	939.7	943.6	945.6
25°	5427.3	4873.1	3656.3	2422.0	1408.6	974.6	846.7	827.4	844.8	870.0	873.9
27.5°	5363.3	4694.8	3251.3	1846.5	1019.2	792.5	734.4	742.1	773.1	800.2	804.1
30°	5380.8	4561.1	2832.8	1338.9	784.7	668.5	649.1	664.6	695.6	720.8	724.7
32.5°	5504.8	4493.3	2404.6	974.6	645.2	583.2	575.5	587.1	614.2	633.6	635.5
35°	5750.8	4508.8	1997.7	746.0	554.2	519.3	517.3	525.1	538.7	552.2	554.2
37.5°	6113.2	4634.8	1596.6	620.0	501.8	476.7	468.9	468.9	478.6	484.4	488.3
40°	6502.6	4824.7	1278.8	548.3	465.0	437.9	422.4	416.6	424.3	432.1	434.0
42.5°	6824.3	5014.6	1038.6	498.0	436.0	399.1	379.8	375.9	385.6	399.1	403.0
45°	7070.4	5161.8	866.1	457.3	403.0	362.3	341.0	341.0	358.5	381.7	385.6
47.5°	7295.1	5280.0	738.2	420.5	372.0	329.4	308.1	312.0	341.0	372.0	377.8
50°	7448.2	5374.9	643.3	387.5	346.8	302.3	282.9	290.6	325.5	362.3	368.1
52.5°	7612.9	5491.2	581.3	358.5	323.6	281.0	263.5	269.3	308.1	348.8	356.5
55°	8068.2	5880.7	579.3	319.7	282.9	251.9	244.1	246.1	284.8	331.3	341.0
57.5°	*8440.3*	*6223.6*	*618.1*	*269.3*	*236.4*	*220.9*	*217.0*	*219.0*	*253.8*	*306.1*	*317.8*
60°	6983.2	4836.3	511.5	222.8	197.6	193.8	187.9	191.8	224.8	271.3	281.0
62.5°	4132.9	2765.0	244.1	170.5	168.6	164.7	158.9	166.6	197.6	238.3	244.1
65°	1412.5	819.6	155.0	139.5	143.4	137.6	131.8	139.5	166.6	189.9	191.8
67.5°	271.3	217.0	124.0	116.3	118.2	106.6	104.6	112.4	127.9	131.8	129.8
70°	141.4	125.9	94.9	94.9	91.1	75.6	75.6	83.3	83.3	77.5	75.6
72.5°	73.6	69.8	62.0	69.8	58.1	46.5	46.5	50.4	46.5	38.8	38.8
75°	29.1	29.1	27.1	34.9	25.2	21.3	19.4	23.3	17.4	13.6	13.6
77.5°	7.8	7.8	7.8	9.7	5.8	5.8	3.9	3.9	1.9	0.0	0.0
80°	0.0	1.9	0.0	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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

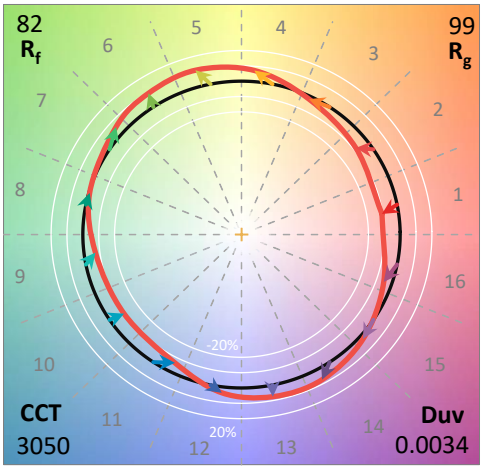
Test Information

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

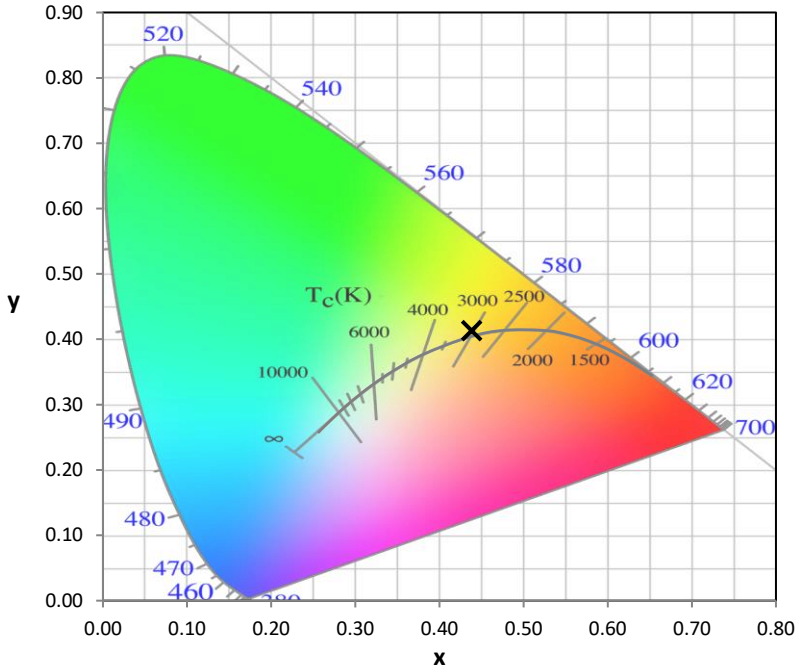
Stabilization Time:	20M
Operation Time:	1H 20M
Sphere Temperature (°C):	24.2

REPORT NUMBER: SP1-2408-195-9

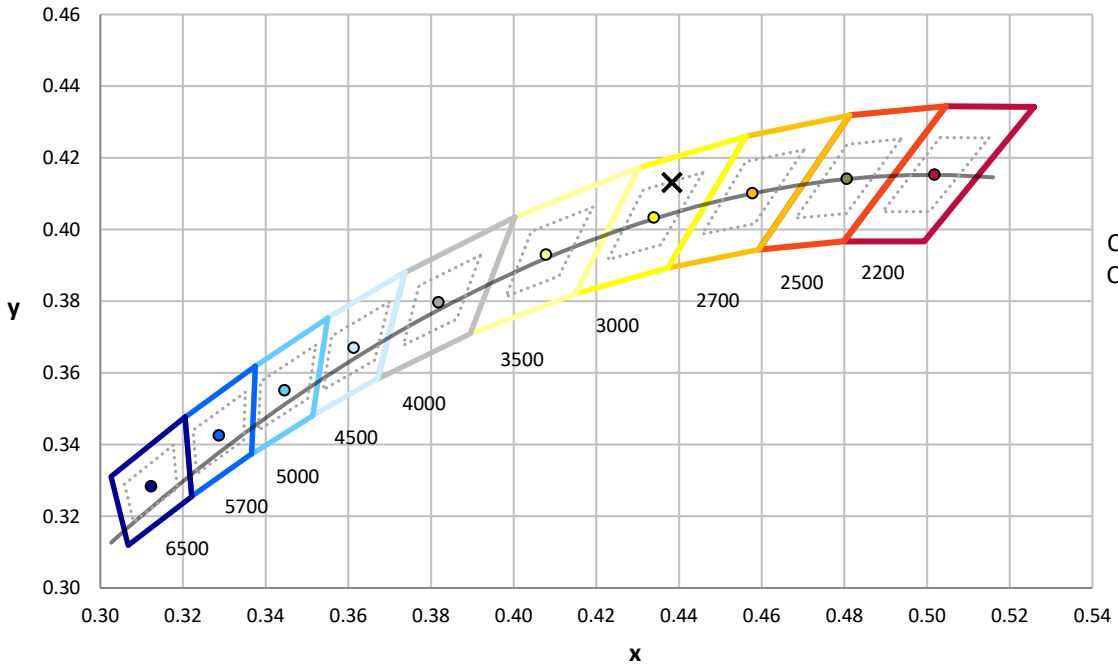
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

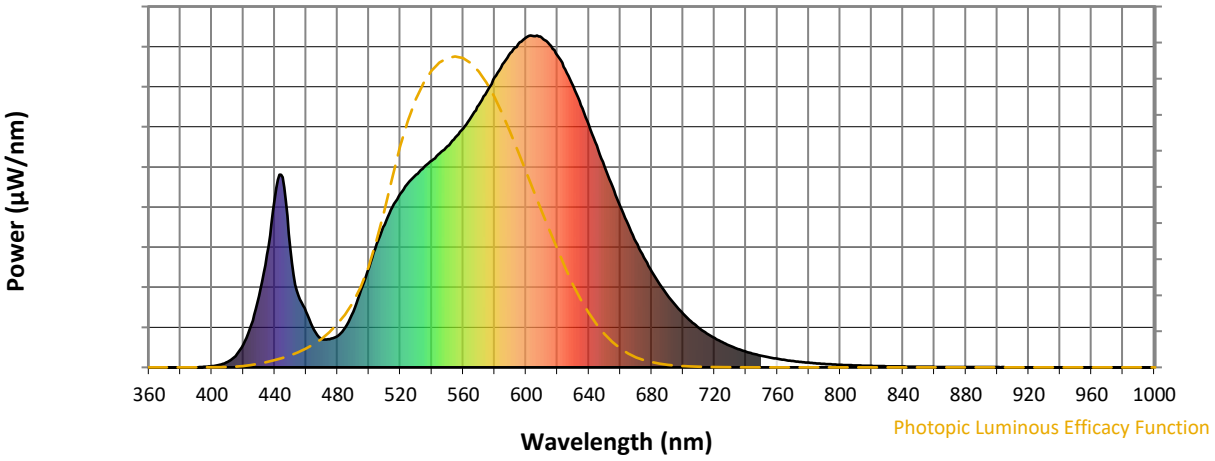


CCT = 3050K
CIE x = 0.4383
CIE y = 0.4131
Duv = 0.0034

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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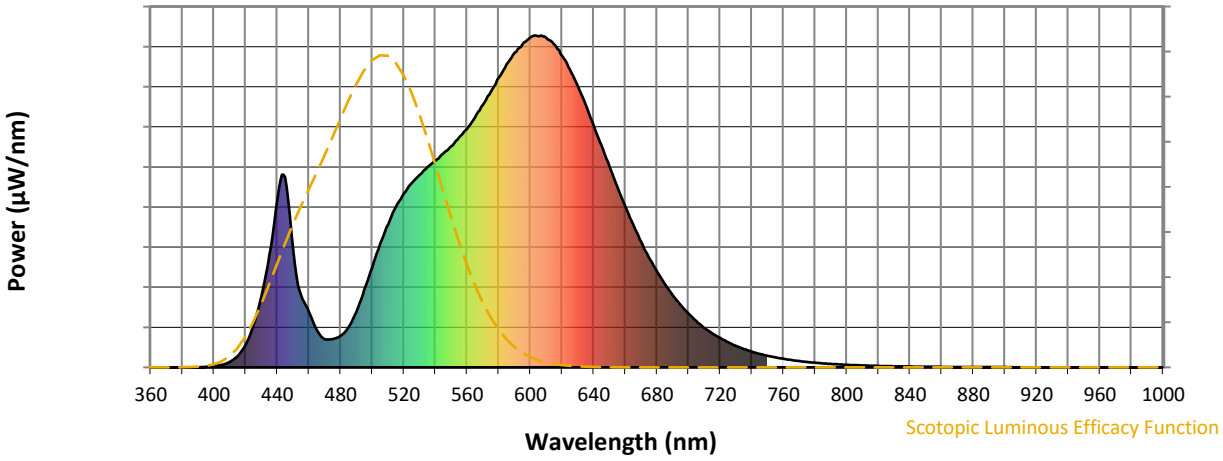
Scotopic Flux vs. Wavelength



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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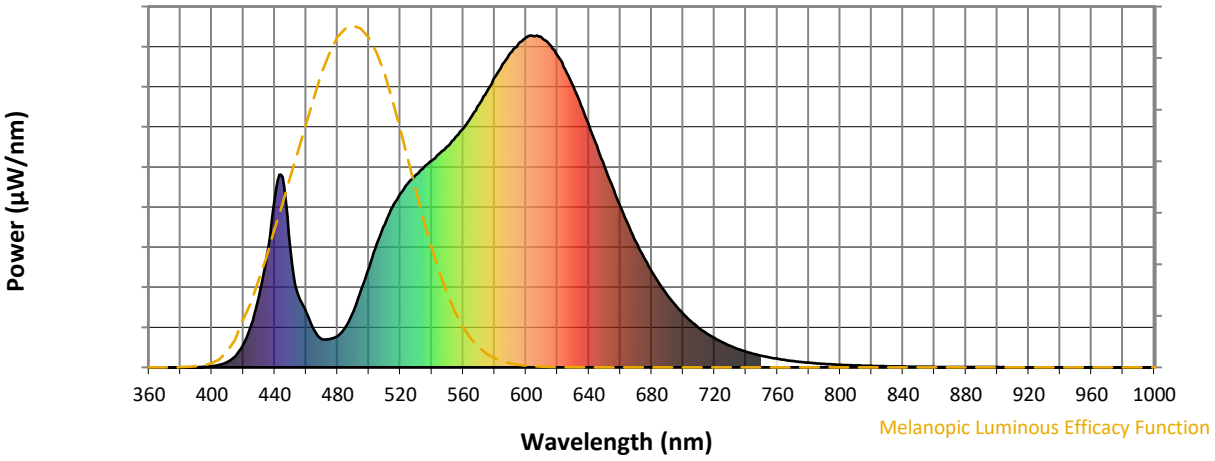
Melanopic Flux vs. Wavelength



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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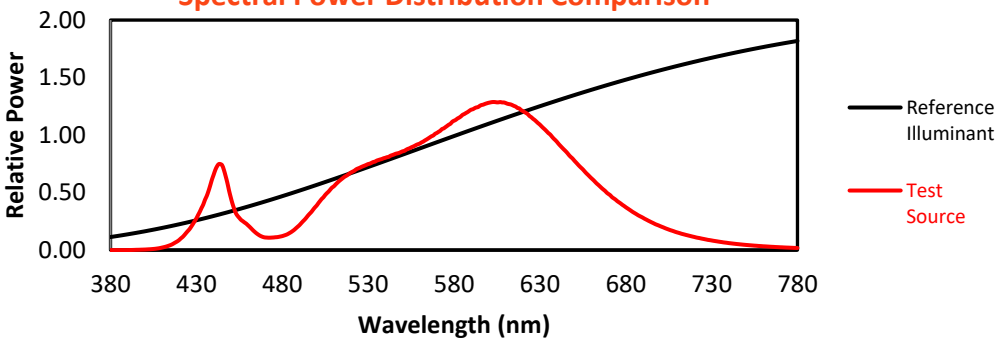
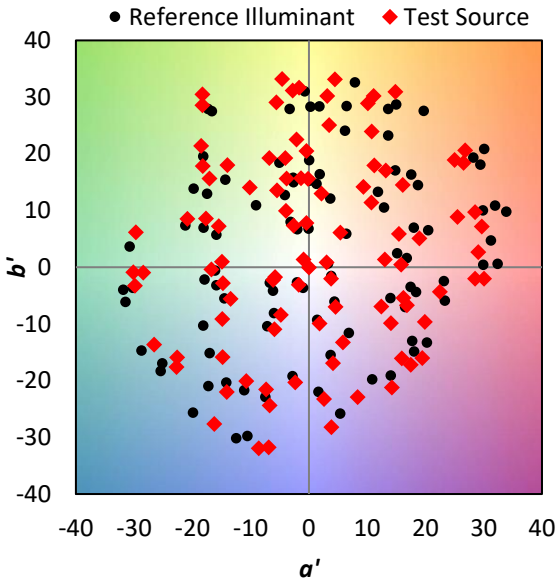
Summary

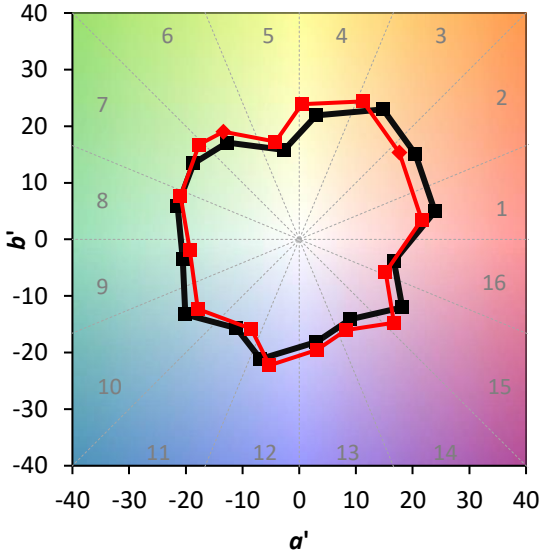
R_f = 81.5
R_g = 99.2
CIE R_a = 81.0
R_9 = 7.1

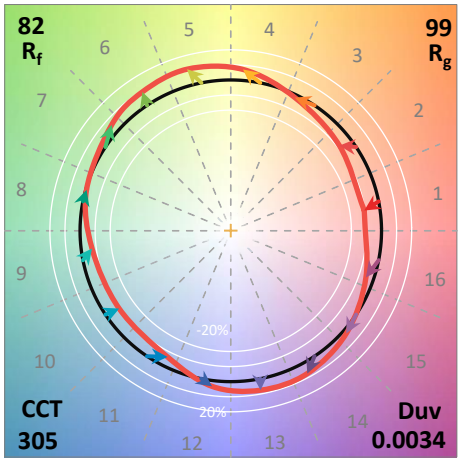
Spectral Power Distribution Comparison

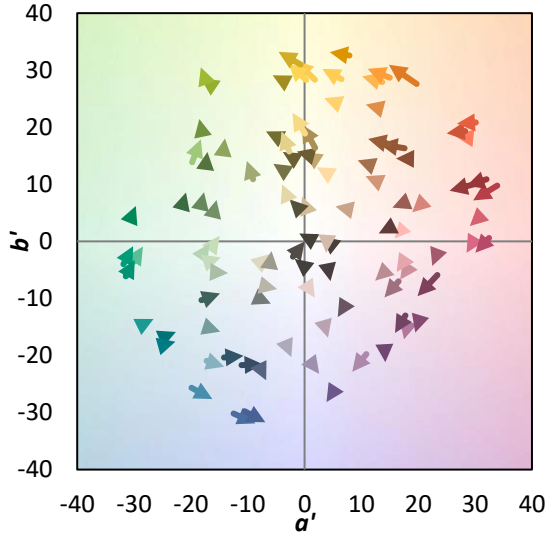


Color Vector Graphics









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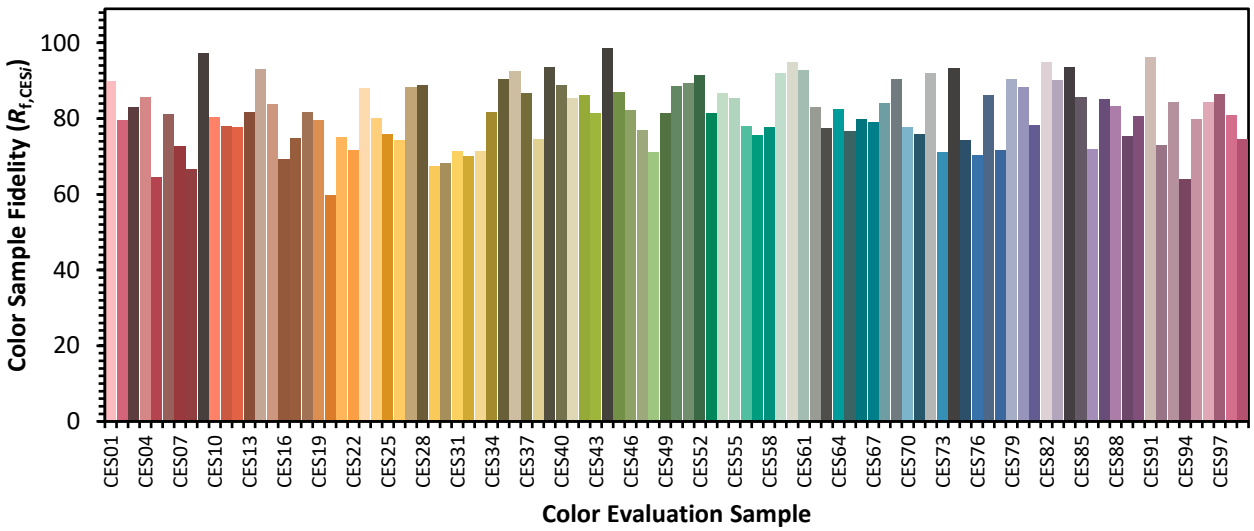
Individual Sample Fidelity Index ($R_{f,i}$)

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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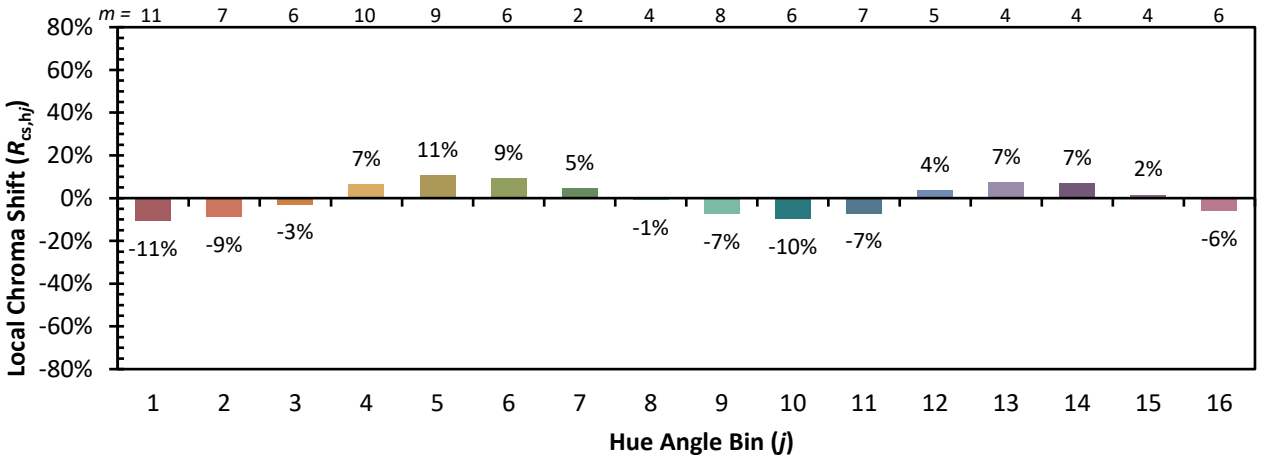
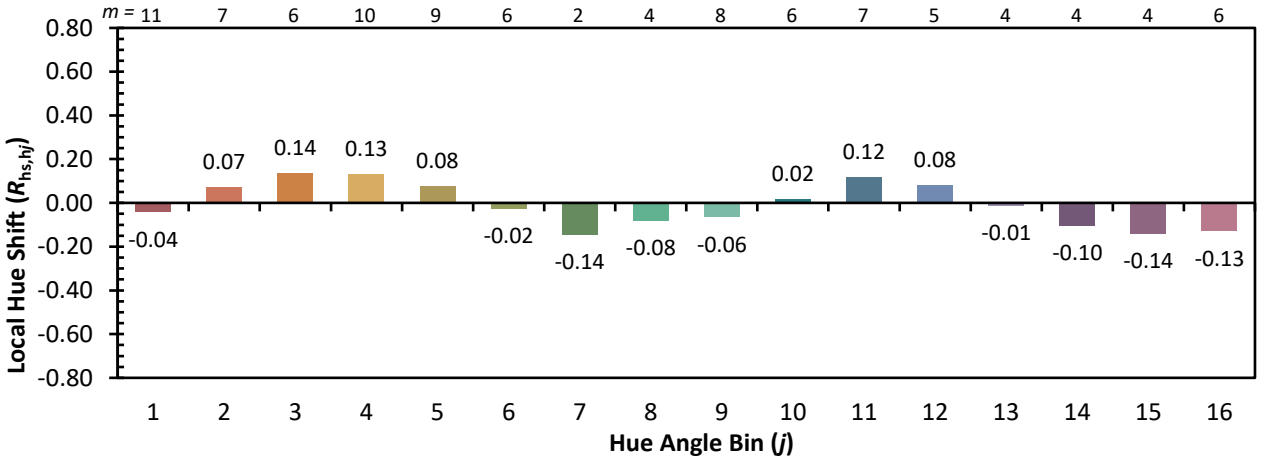
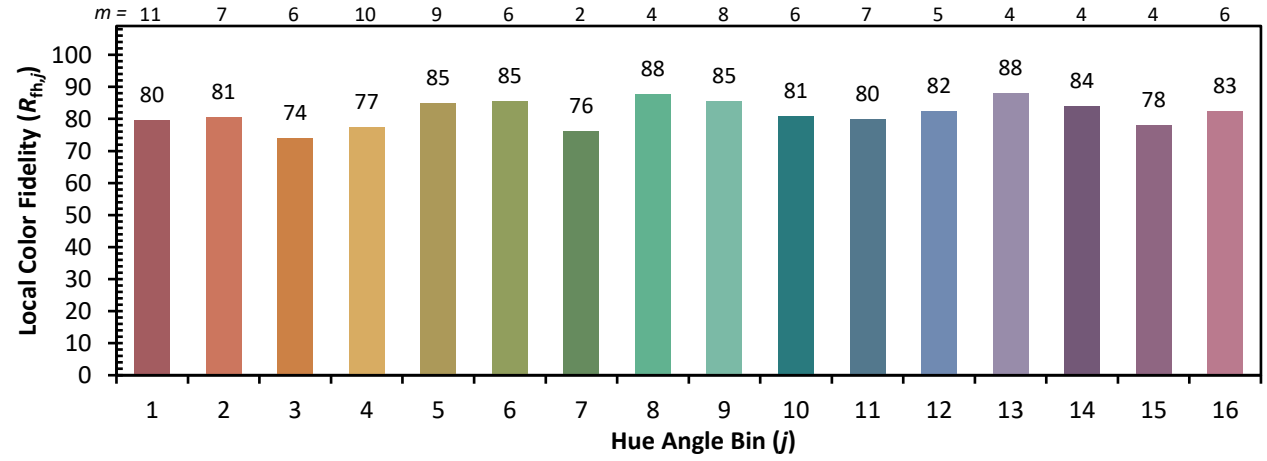
Color Rendition by Hue-Angle Bin







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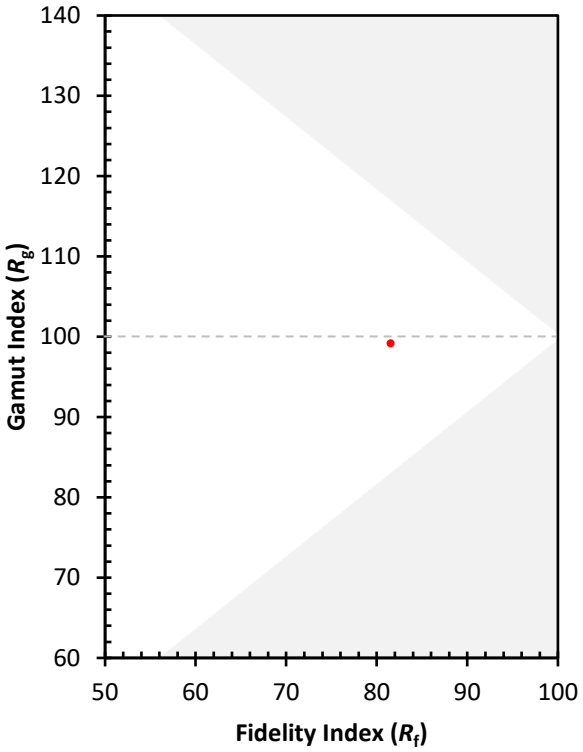
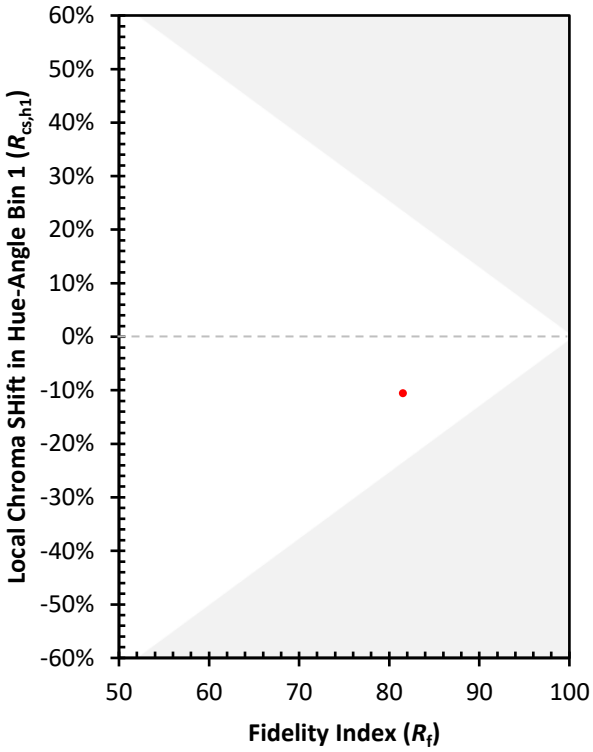
Measure Comparisons





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