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: P640952

Luminaire Tested: GWS-SA5E-830-U-SL4-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:	P640952
	TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-36)
Test Lab:	COOPER LIGHTING SOLUTIONS
Issue Date:	1/10/2023
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	McGRAW-EDISON
Catalog Number:	GWS-SA5E-830-U-SL4-W-HSS
Description:	GALLEON WALL SLIM LUMINAIRE. (5) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source:	(80) 3000K CCT, 80 CRI LEDS
Ballast/Driver:	-

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	23497 lumens
Efficiency:	N/A
Efficacy:	87.2 lumens/watt
Luminous Opening:	Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification:	Type IV - Short
BUG Rating:	B2 - U0 - G4

Input Watts (W):	269.6
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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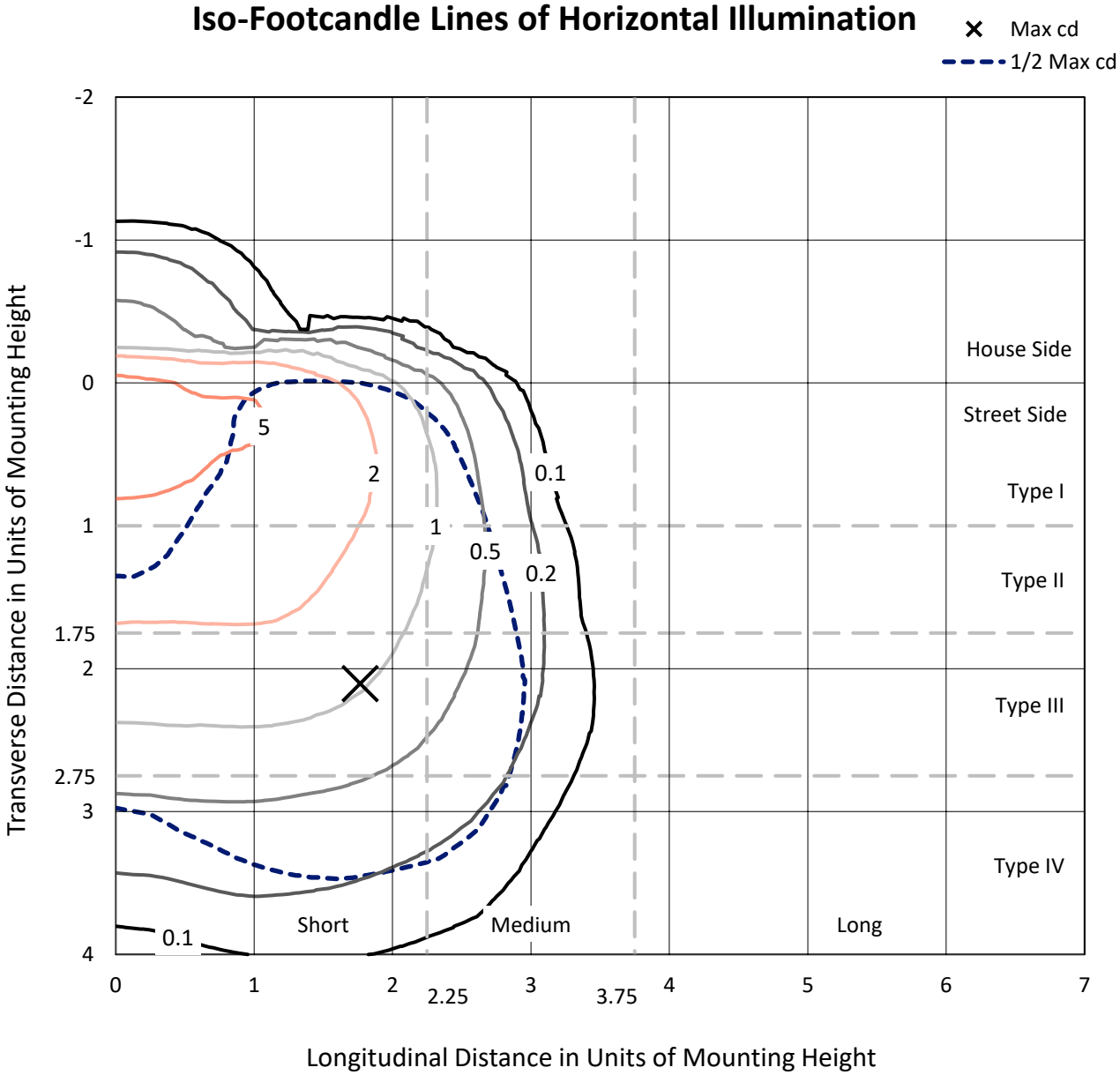
Scaled Data Report

REPORT NUMBER: P640952
CATALOG NUMBER: GWS-SA5E-830-U-SL4-W-HSS

Iso-Footcandle Lines of Horizontal Illumination



Based on 25 foot mounting height. Maximum calculated value = 6.9 fc
Type IV - Short - N/A

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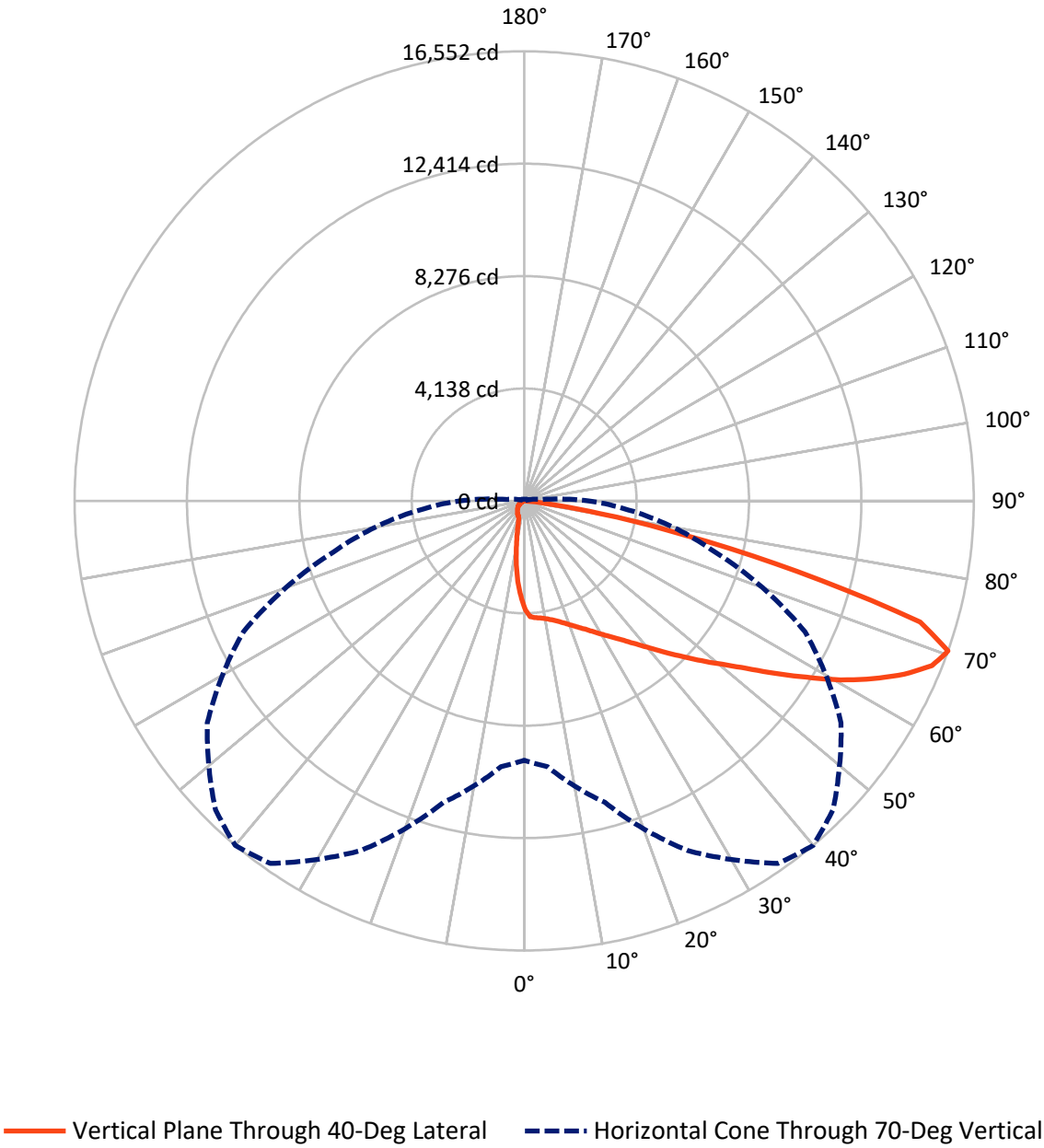
Luminous Intensity Polar Plot



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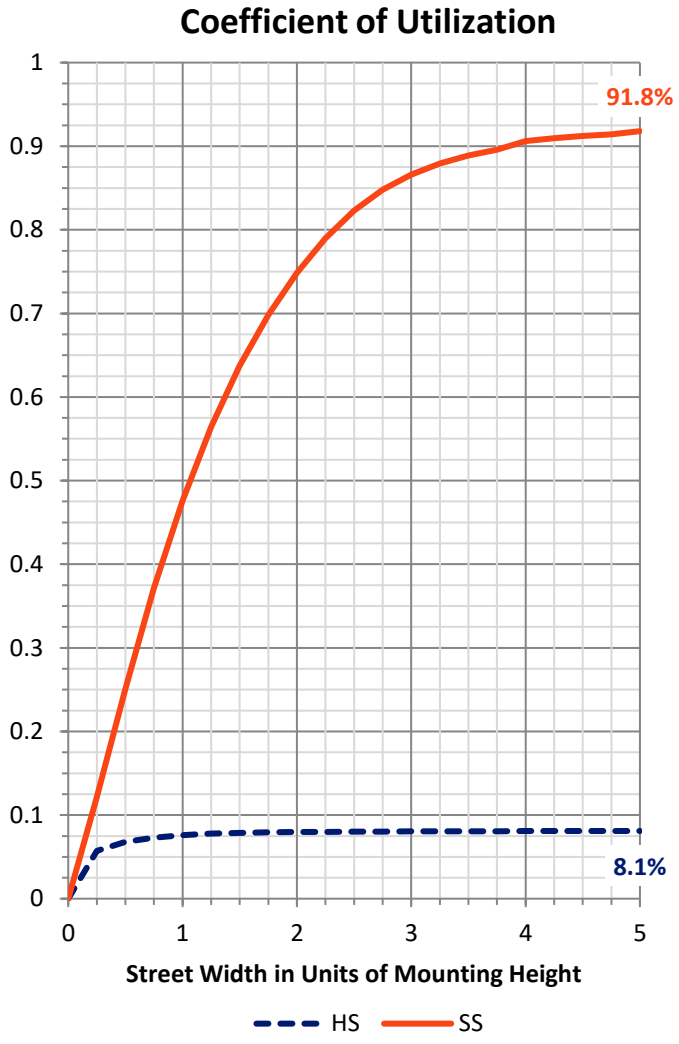
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1921.5	0.0	1921.5
	% Fixture	8.2	0.0	8.2
Street Side	Lumens	21575.5	0.0	21575.5
	% Fixture	91.8	0.0	91.8
Total	Lumens	23497.0	0.0	23497.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	337.0	1.4
10°-20°	854.7	3.6
20°-30°	1430.5	6.1
30°-40°	2246.8	9.6
40°-50°	3553.8	15.1
50°-60°	5184.1	22.1
60°-70°	6426.5	27.4
70°-80°	3251.4	13.8
80°-90°	212.3	0.9
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°	23497.0	100.0
0°-180°	23497.0	100.0



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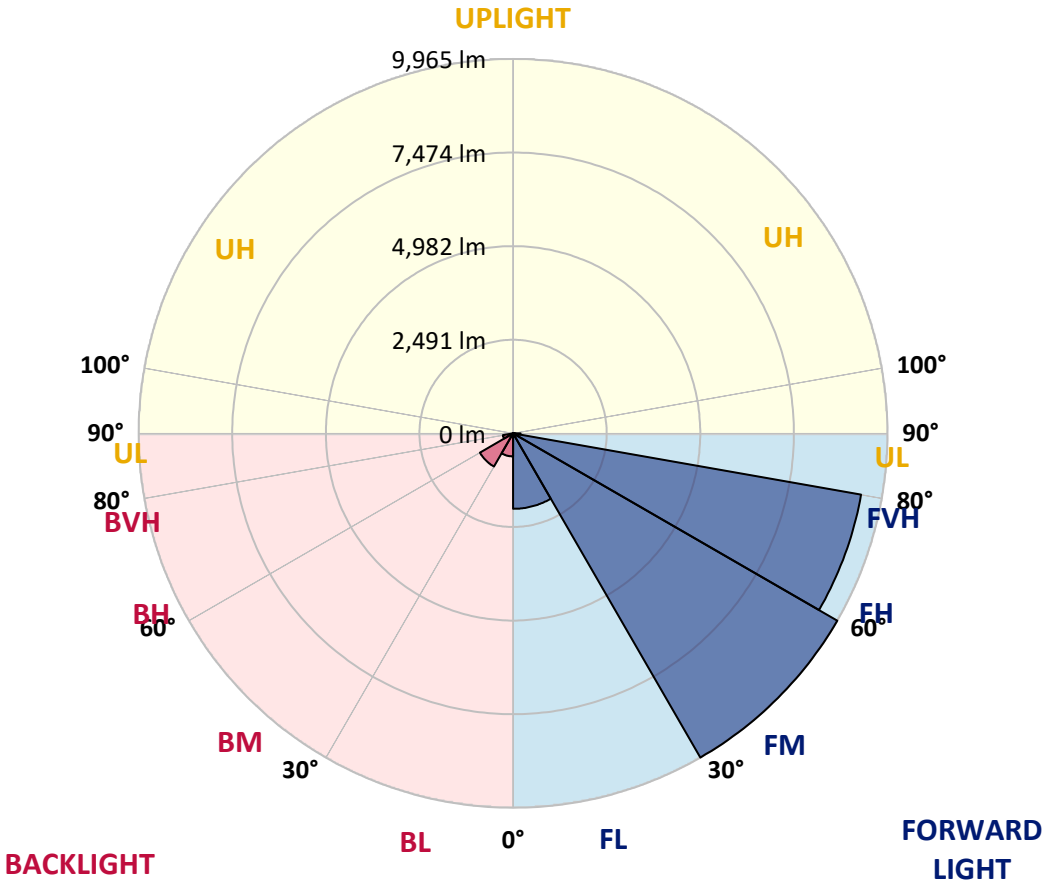
REPORT NUMBER: P640952
CATALOG NUMBER: GWS-SA5E-830-U-SL4-W-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	2008.6	8.5			
FM	(30°-60°)	9964.8	42.4			
FH	(60°-80°)	9403.9	40.0			G4/12000
FVH	(80°-90°)	198.3	0.8			G2/225
BL	(0°-30°)	613.6	2.6	B2/1000		
BM	(30°-60°)	1019.9	4.3	B2/2500		
BH	(60°-80°)	274.0	1.2	B1/500		G1/500
BVH	(80°-90°)	14.0	0.1			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G4
Type IV Short



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Scaled Data Report

REPORT NUMBER: P640952
CATALOG NUMBER: GWS-SA5E-830-U-SL4-W-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	3987.2	3987.2	3987.2	3987.2	3987.2	3987.2	3987.2	3987.2	3987.2	3987.2	3987.2
2.5°	4286.5	4301.4	4299.3	4305.7	4290.7	4267.2	4262.9	4230.9	4173.2	4100.5	4019.2
5°	4374.1	4391.2	4378.4	4372.0	4344.2	4318.5	4312.1	4277.9	4211.6	4113.3	3972.2
7.5°	4448.9	4453.2	4444.7	4429.7	4389.1	4354.9	4331.4	4284.3	4205.2	4106.9	3944.4
10°	4461.8	4459.6	4463.9	4466.0	4440.4	4410.5	4391.2	4327.1	4226.6	4121.8	3946.5
12.5°	4446.8	4446.8	4474.6	4506.7	4506.7	4491.7	4472.5	4414.7	4297.2	4173.2	3989.3
15°	4466.0	4472.5	4525.9	4585.8	4605.0	4590.0	4581.5	4521.6	4399.8	4262.9	4066.3
17.5°	4534.5	4540.9	4626.4	4716.2	4739.7	4722.6	4705.5	4645.6	4515.2	4365.6	4153.9
20°	4634.9	4652.0	4761.1	4876.5	4897.9	4876.5	4842.3	4758.9	4628.5	4476.7	4237.3
22.5°	4818.8	4829.5	4947.1	5068.9	5079.6	5045.4	4994.1	4878.7	4741.8	4594.3	4331.4
25°	5062.5	5077.5	5195.1	5312.6	5284.9	5233.5	5163.0	5032.6	4876.5	4733.3	4451.1
27.5°	5353.3	5370.4	5485.8	5588.4	5515.7	5455.9	5376.8	5214.3	5056.1	4925.7	4605.0
30°	5667.5	5682.5	5785.1	5877.1	5780.8	5710.3	5616.2	5449.5	5289.1	5190.8	4823.1
32.5°	5971.1	5969.0	6067.3	6142.1	6043.8	5988.2	5902.7	5733.8	5605.5	5562.8	5148.0
35°	6253.3	6253.3	6334.6	6409.4	6338.8	6308.9	6229.8	6095.1	6022.4	6073.7	5582.0
37.5°	6537.7	6522.7	6599.7	6683.0	6676.6	6678.8	6633.9	6569.7	6574.0	6755.7	6178.5
40°	6772.8	6766.4	6856.2	6965.2	7050.8	7119.2	7091.4	7114.9	7249.6	7589.5	6941.7
42.5°	6961.0	6975.9	7091.4	7264.5	7480.5	7619.4	7638.7	7734.9	8081.2	8607.1	7803.3
45°	7176.9	7179.0	7339.4	7604.5	7948.7	8168.9	8245.8	8493.8	8985.5	9663.2	8748.2
47.5°	7442.0	7416.3	7595.9	7967.9	8466.0	8791.0	8927.8	9237.8	9998.9	10693.7	9517.9
50°	7734.9	7687.8	7890.9	8397.6	9045.4	9451.6	9729.5	10182.8	11003.7	11540.3	10090.8
52.5°	8074.8	8029.9	8260.8	8891.5	9740.2	10234.1	10591.1	11048.6	11865.3	12186.0	10432.9
55°	8506.7	8461.8	8705.5	9483.7	10561.2	11202.5	11576.7	11961.5	12667.0	12662.7	10680.9
57.5°	8985.5	8923.5	9261.3	10231.9	11585.2	12252.2	12632.8	12820.9	13276.3	13032.6	10847.6
60°	9535.0	9479.4	9947.6	11123.4	12767.5	13385.3	13624.8	13547.8	13776.5	13250.6	10789.9
62.5°	10031.0	10005.3	10586.8	12068.4	13894.1	14415.8	14482.0	14146.4	14144.3	13254.9	10400.8
65°	10546.2	10595.4	11459.1	13156.6	15027.2	15377.8	15264.5	14740.7	14291.8	12731.1	9250.6
67.5°	10738.6	10881.8	12034.2	14140.0	15920.8	16194.5	15995.7	15037.9	13678.2	10969.5	7044.3
70°	9549.9	9819.3	11491.1	14195.6	16290.7	16551.5	16074.8	14238.3	11403.5	7266.7	3858.9
72.5°	7262.4	7576.7	9575.6	11623.7	14650.9	15245.3	14430.7	11600.2	7350.1	3183.3	1295.6
75°	4064.1	4404.0	7132.0	8752.5	9836.4	10379.4	10080.1	7442.0	3256.0	831.6	387.0
77.5°	1374.7	1488.0	3318.0	5415.3	6492.8	6005.3	5083.9	3696.4	1197.2	316.4	205.2
80°	814.5	857.3	1235.7	2695.9	3416.3	2832.7	2236.2	1366.1	609.3	168.9	143.2
82.5°	243.7	288.6	682.0	1000.5	1338.3	833.8	705.5	780.3	316.4	91.9	119.7
85°	0.0	0.0	145.4	310.0	350.6	136.8	136.8	442.5	57.7	38.5	87.7
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	2.1	10.7	6.4	8.6	19.2
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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Scaled Data Report

REPORT NUMBER: P640952
CATALOG NUMBER: GWS-SA5E-830-U-SL4-W-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3987.2	3987.2	3987.2	3987.2	3987.2	3987.2	3987.2	3987.2	3987.2	3987.2	3987.2
2.5°	3961.5	3886.7	3799.0	3715.6	3636.5	3533.9	3484.8	3424.9	3373.6	3345.8	3360.8
5°	3882.4	3764.8	3585.2	3403.5	3219.7	3046.5	2890.4	2785.7	2691.6	2642.4	2653.1
7.5°	3814.0	3655.8	3375.7	3078.6	2783.5	2486.4	2244.8	2056.6	1911.3	1851.4	1840.7
10°	3784.1	3585.2	3189.7	2762.1	2308.9	1909.1	1567.1	1359.7	1212.2	1139.5	1152.3
12.5°	3799.0	3548.9	3031.5	2452.2	1864.2	1398.2	1071.1	876.5	771.8	729.0	718.3
15°	3841.8	3540.3	2890.4	2135.7	1438.8	977.0	739.7	660.6	639.2	635.0	635.0
17.5°	3891.0	3542.5	2745.0	1815.1	1092.5	724.7	632.8	617.8	611.4	607.2	609.3
20°	3940.1	3542.5	2578.3	1490.1	820.9	626.4	602.9	592.2	585.8	583.6	583.6
22.5°	4000.0	3542.5	2392.3	1188.7	658.5	594.3	575.1	568.7	562.3	560.1	558.0
25°	4072.7	3544.6	2187.1	930.0	598.6	566.5	551.6	545.2	538.7	534.5	534.5
27.5°	4177.4	3561.7	1960.4	724.7	564.4	540.9	528.1	521.6	515.2	508.8	508.8
30°	4329.2	3604.5	1706.0	598.6	532.3	513.1	500.3	496.0	489.6	483.2	481.0
32.5°	4555.8	3679.3	1443.1	536.6	502.4	483.2	468.2	463.9	457.5	451.1	449.0
35°	4872.2	3816.1	1186.5	498.1	463.9	444.7	436.1	434.0	425.4	419.0	419.0
37.5°	5336.2	4038.5	940.7	459.6	431.9	416.9	406.2	401.9	393.4	387.0	384.8
40°	5902.7	4327.1	731.2	429.7	401.9	387.0	376.3	369.9	359.2	350.6	346.3
42.5°	6625.3	4679.8	577.2	397.6	374.1	359.2	350.6	337.8	322.8	310.0	307.9
45°	7377.8	5043.3	476.7	367.7	348.5	335.6	325.0	307.9	286.5	271.5	267.2
47.5°	7955.1	5269.9	416.9	335.6	320.7	310.0	297.2	275.8	250.1	233.0	228.8
50°	8367.7	5304.1	372.0	305.7	297.2	286.5	267.2	241.6	213.8	196.7	192.4
52.5°	8570.8	5150.2	335.6	277.9	271.5	260.8	237.3	209.5	179.6	162.5	158.2
55°	8662.7	4859.4	301.4	254.4	245.9	233.0	207.4	177.4	147.5	132.5	128.3
57.5°	8626.4	4429.7	271.5	230.9	220.2	205.2	177.4	145.4	121.9	106.9	104.8
60°	8357.0	3826.8	241.6	207.4	194.5	177.4	149.7	119.7	98.3	87.7	85.5
62.5°	7775.5	3078.6	211.7	179.6	171.0	153.9	128.3	98.3	81.2	74.8	72.7
65°	6584.7	2176.4	181.7	151.8	147.5	130.4	106.9	81.2	70.6	66.3	64.1
67.5°	4733.3	1323.4	153.9	130.4	126.1	111.2	89.8	70.6	64.1	62.0	62.0
70°	*2379.5*	*626.4*	*121.9*	*106.9*	*106.9*	*91.9*	*77.0*	*64.1*	*62.0*	*59.9*	*59.9*
72.5°	808.1	267.2	91.9	83.4	87.7	79.1	66.3	59.9	59.9	59.9	59.9
75°	275.8	141.1	64.1	59.9	64.1	64.1	57.7	57.7	59.9	59.9	59.9
77.5°	179.6	94.1	44.9	40.6	49.2	49.2	49.2	53.4	57.7	57.7	57.7
80°	147.5	51.3	29.9	27.8	36.3	36.3	40.6	49.2	53.4	53.4	53.4
82.5°	126.1	32.1	17.1	19.2	25.7	27.8	34.2	40.6	47.0	49.2	49.2
85°	85.5	17.1	12.8	15.0	17.1	21.4	27.8	34.2	38.5	42.8	42.8
87.5°	23.5	6.4	8.6	10.7	10.7	15.0	21.4	25.7	29.9	32.1	32.1
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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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

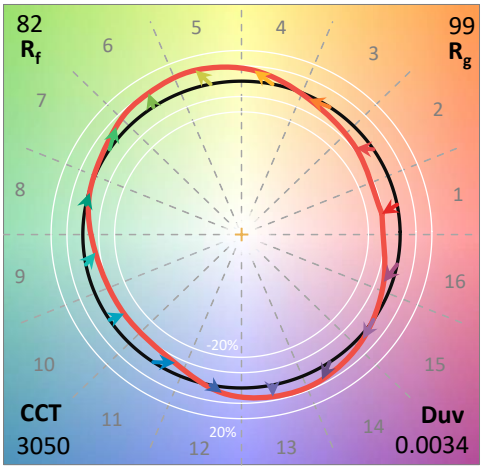
Test Information

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

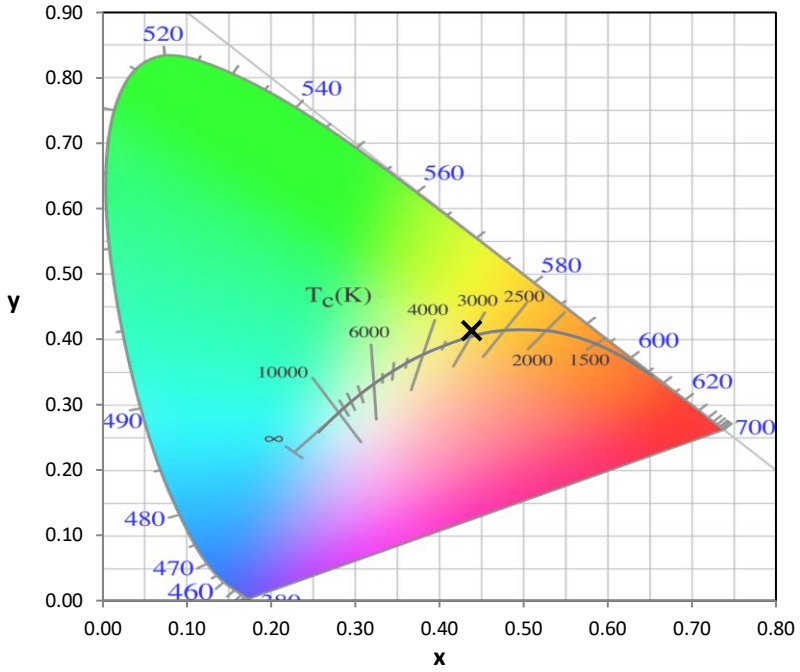
Stabilization Time:	20M
Operation Time:	1H 20M
Sphere Temperature (°C):	24.2

REPORT NUMBER: SP1-2408-195-9

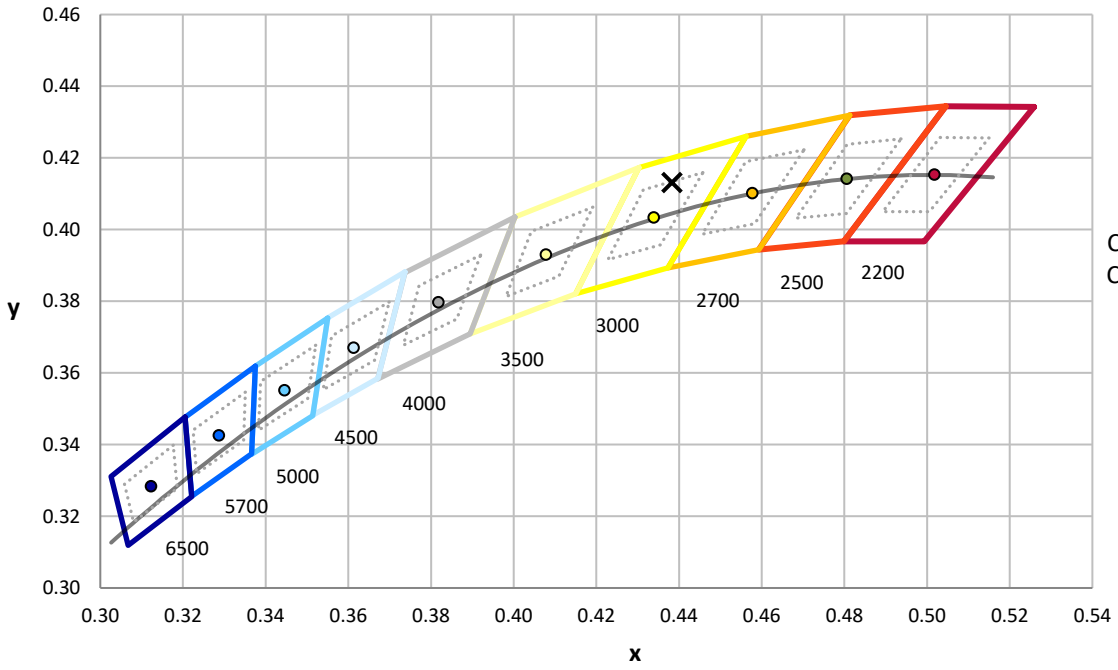
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

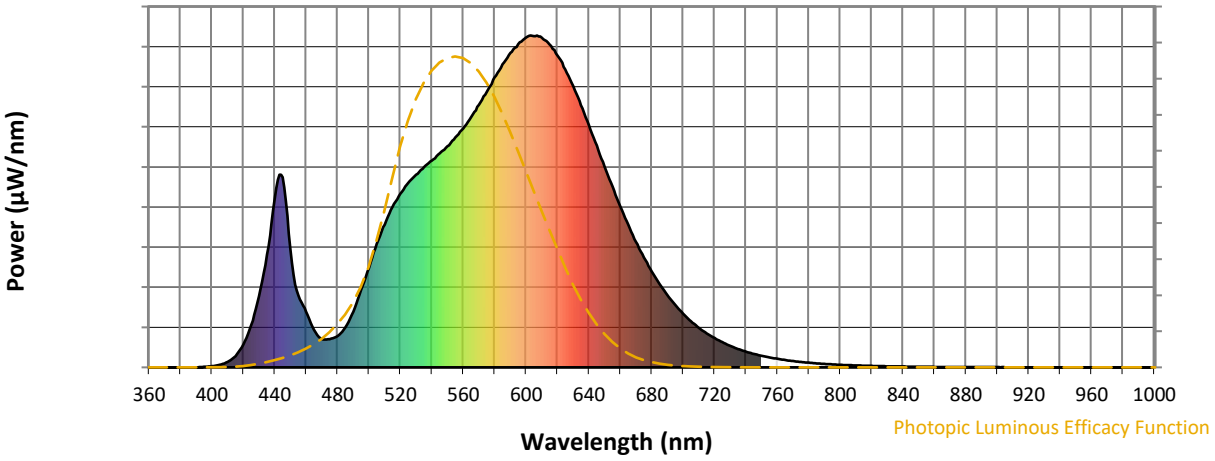


CCT = 3050K
CIE x = 0.4383
CIE y = 0.4131
Duv = 0.0034

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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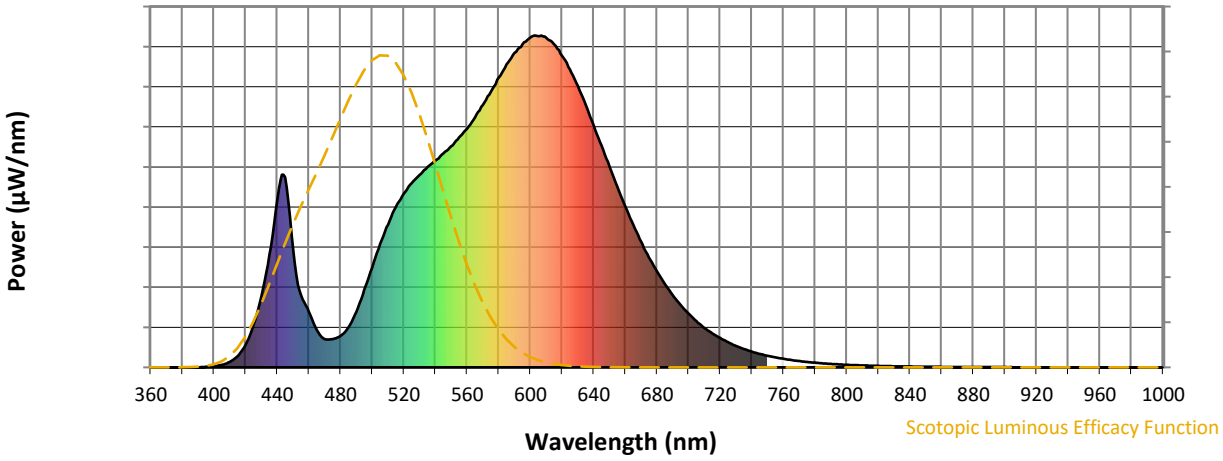
Scotopic Flux vs. Wavelength



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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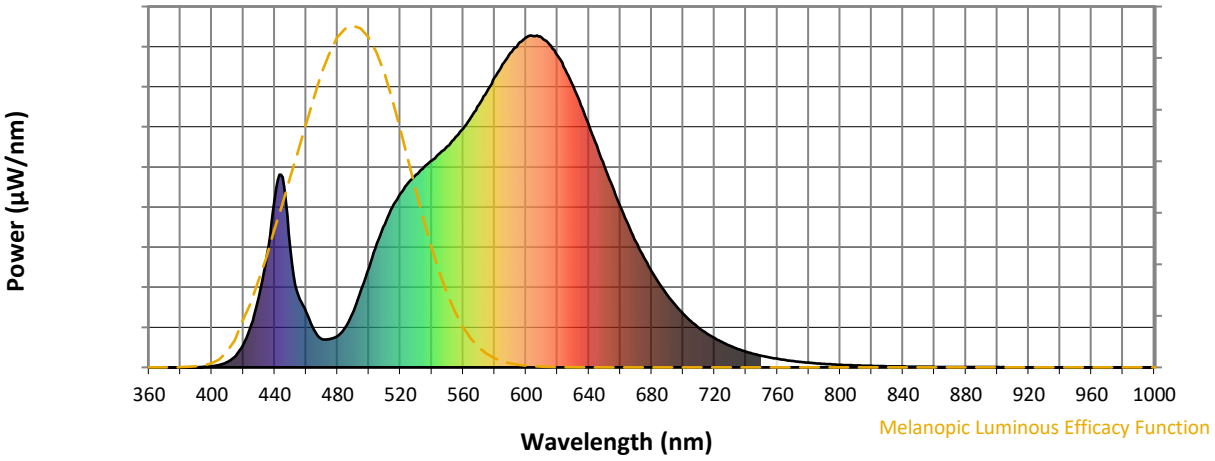
Melanopic Flux vs. Wavelength



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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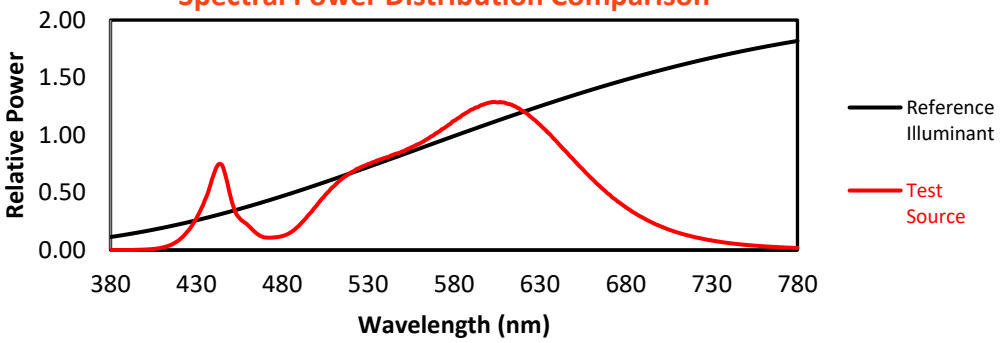
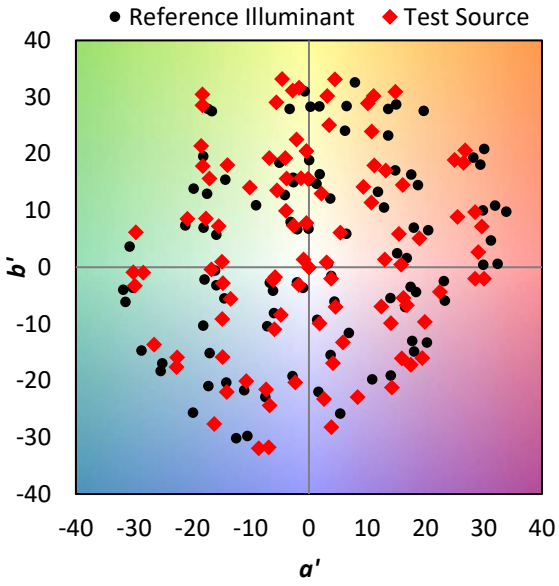
Summary

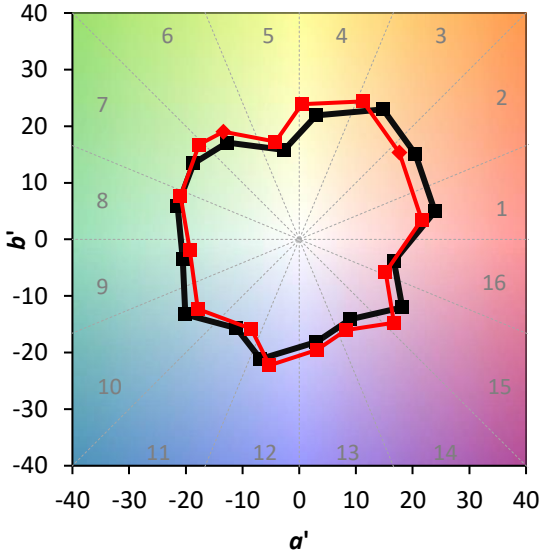
R_f = 81.5
R_g = 99.2
CIE R_a = 81.0
R_9 = 7.1

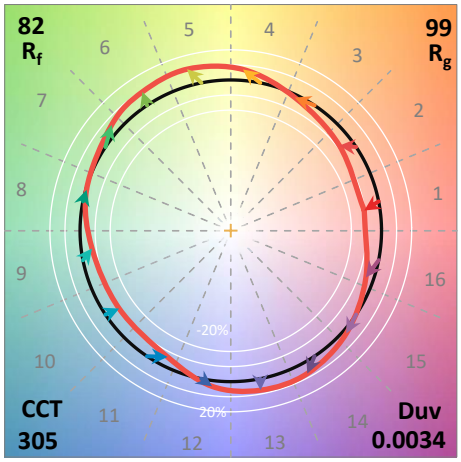
Spectral Power Distribution Comparison

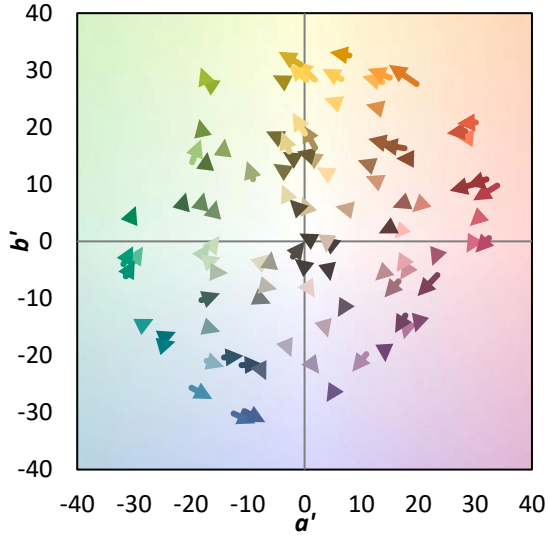


Color Vector Graphics









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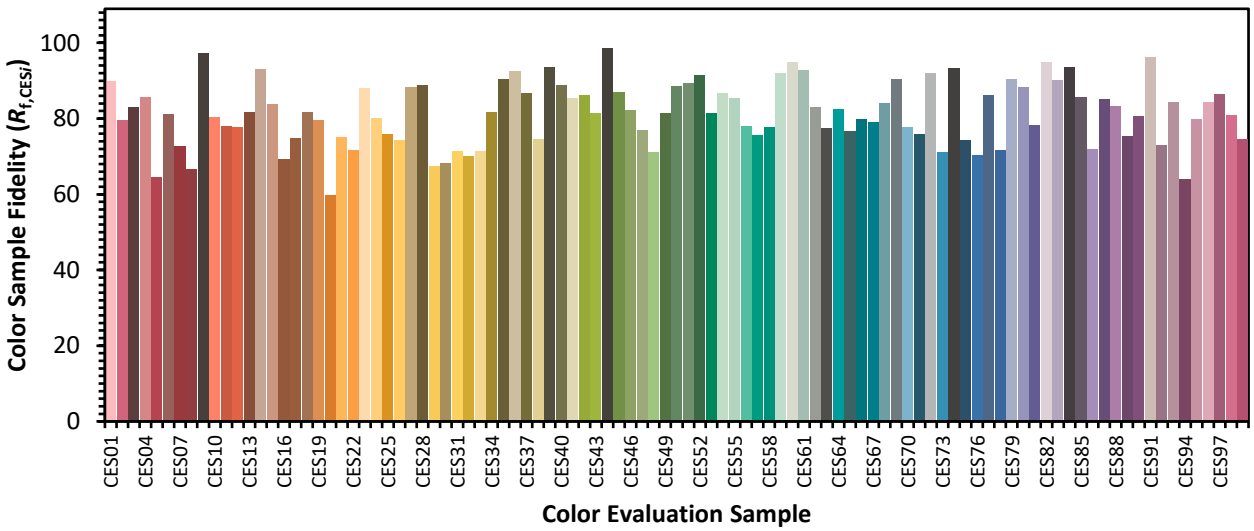
Individual Sample Fidelity Index ($R_{f,i}$)

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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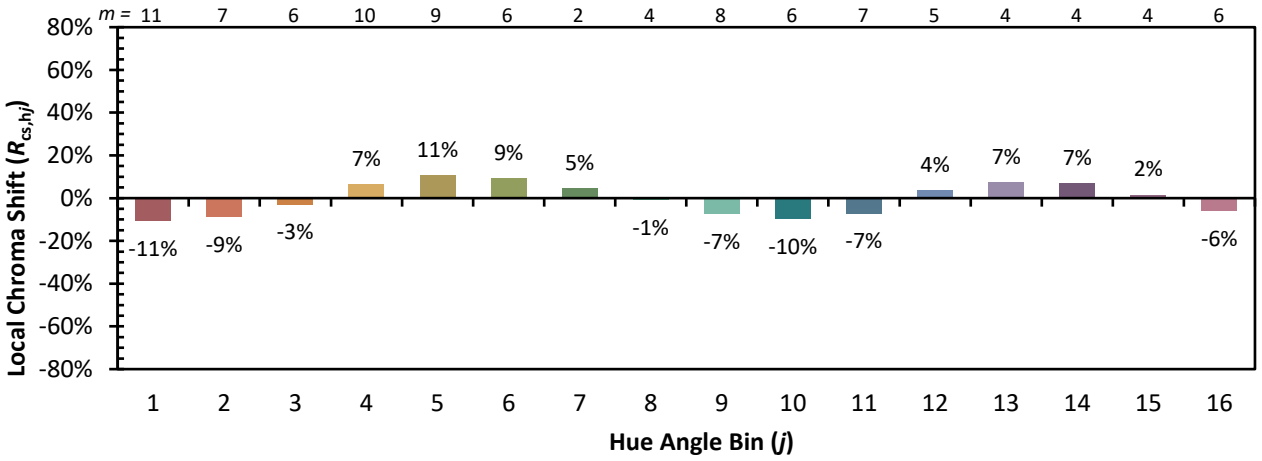
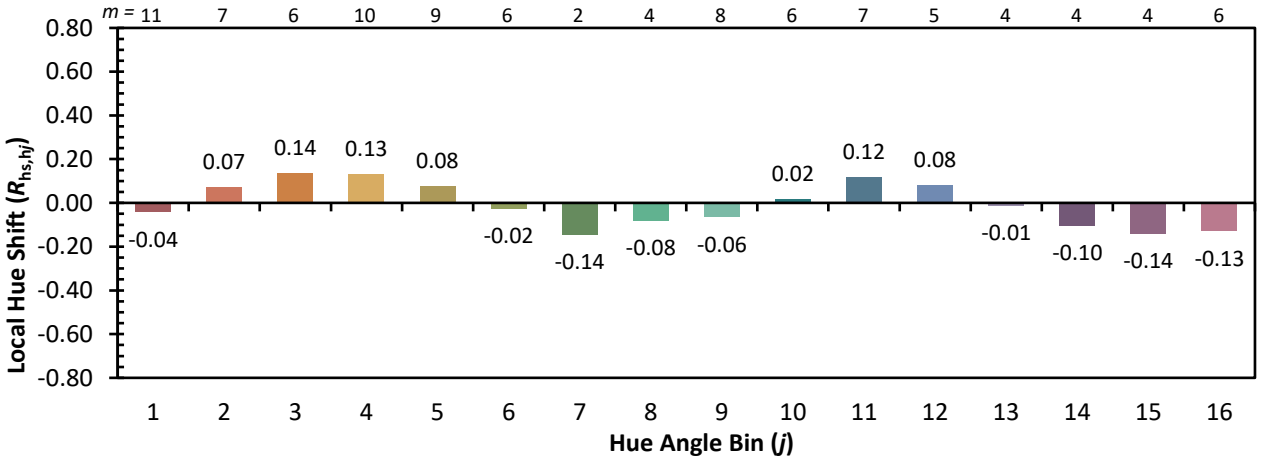
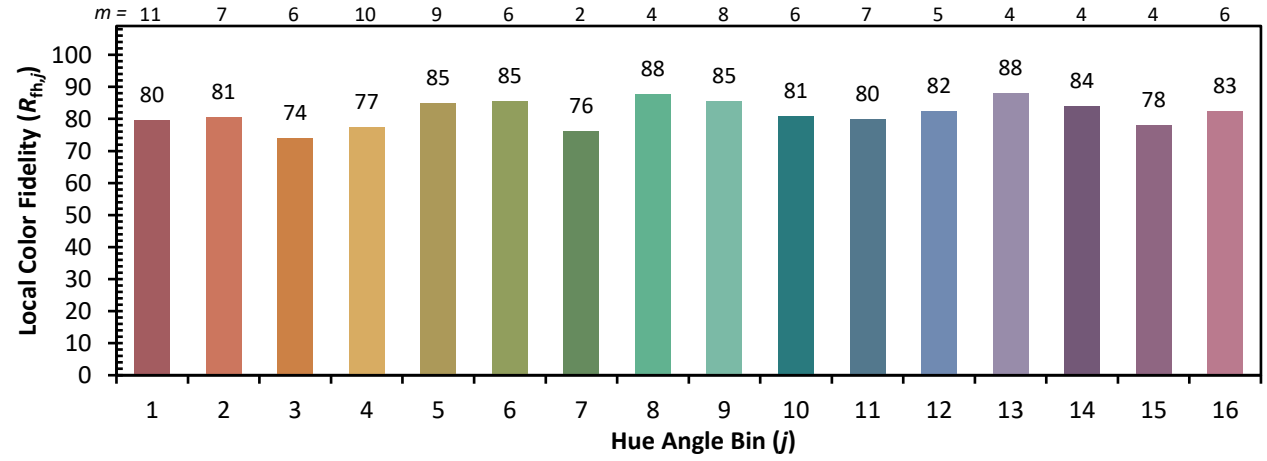
Color Rendition by Hue-Angle Bin







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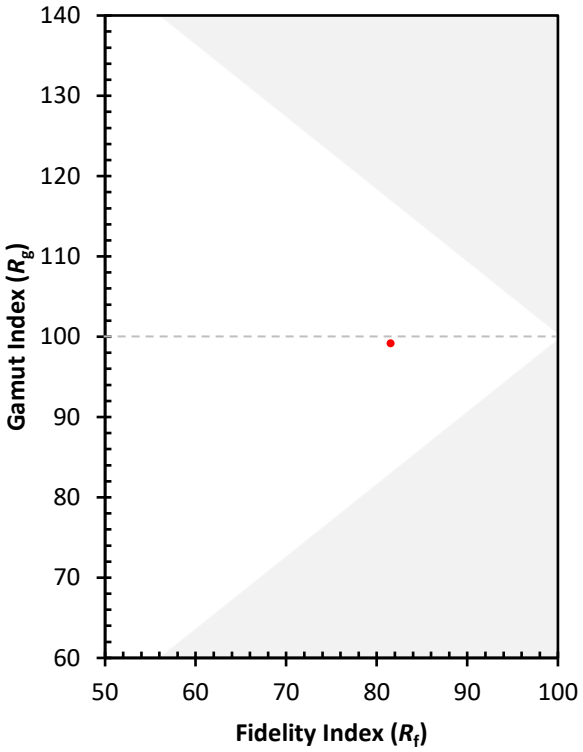
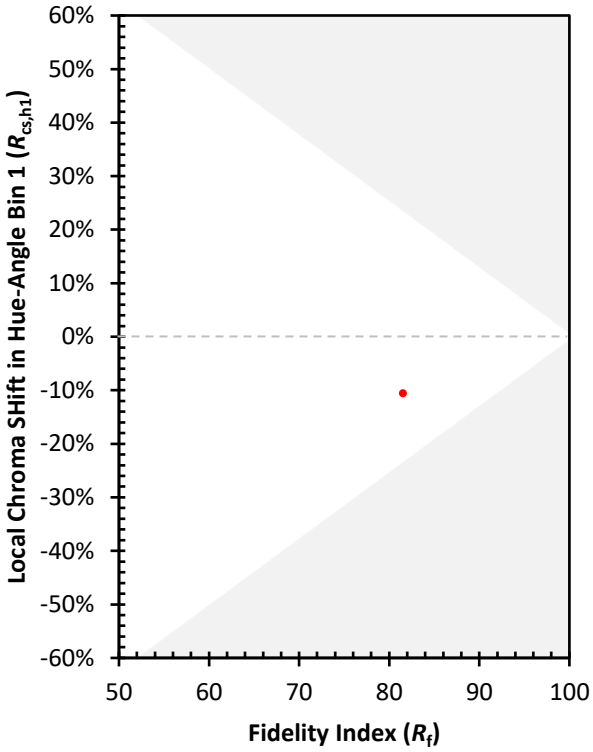
Measure Comparisons





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