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: P637995

Luminaire Tested: GWS-SA4D-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:	P637995
	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-SA4D-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:	14572 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):	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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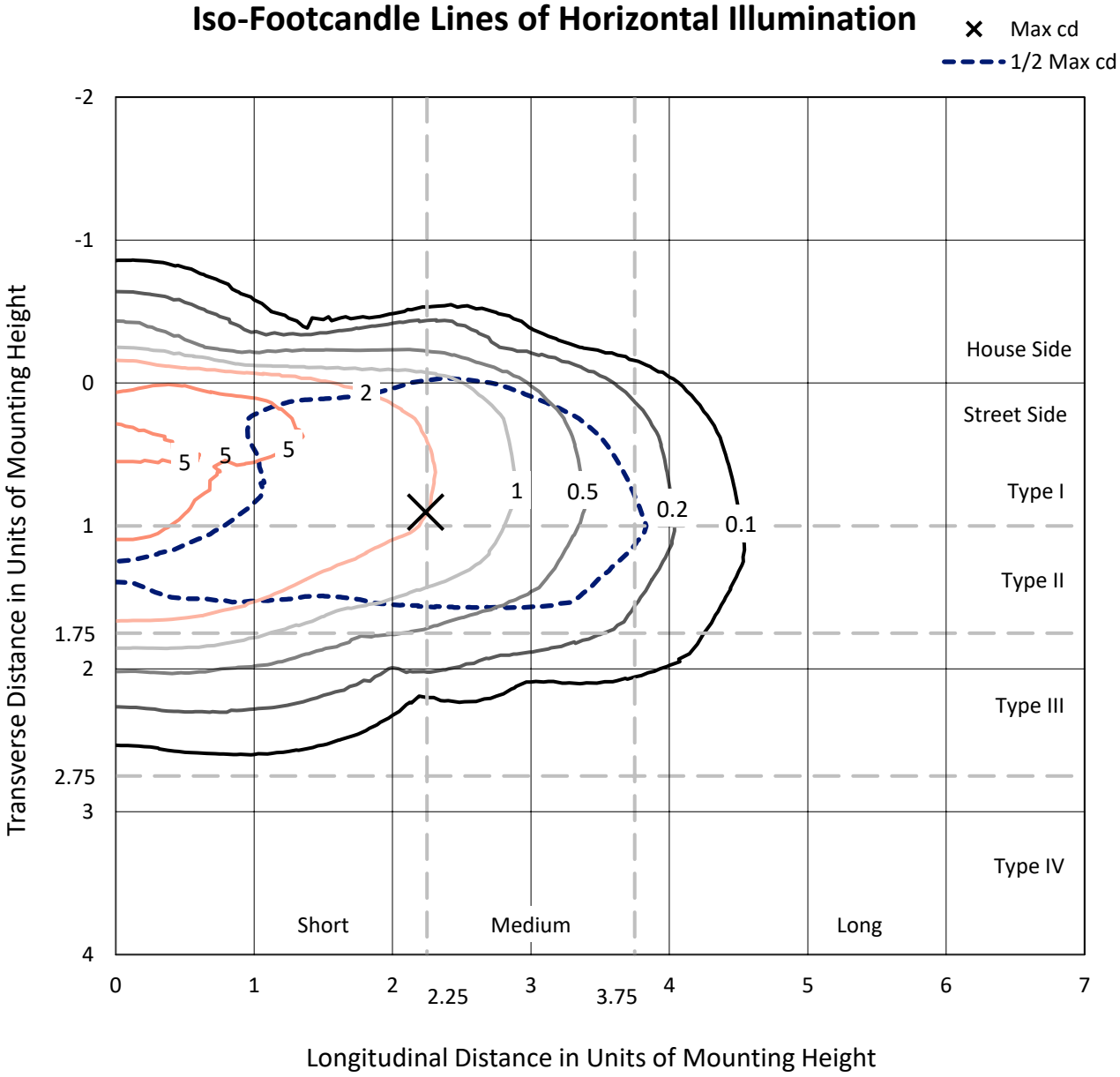
Scaled Data Report

REPORT NUMBER: P637995
CATALOG NUMBER: GWS-SA4D-830-U-T2-W-HSS

Iso-Footcandle Lines of Horizontal Illumination



Based on 20 foot mounting height. Maximum calculated value = 6.8 fc
Type II - Short - N/A

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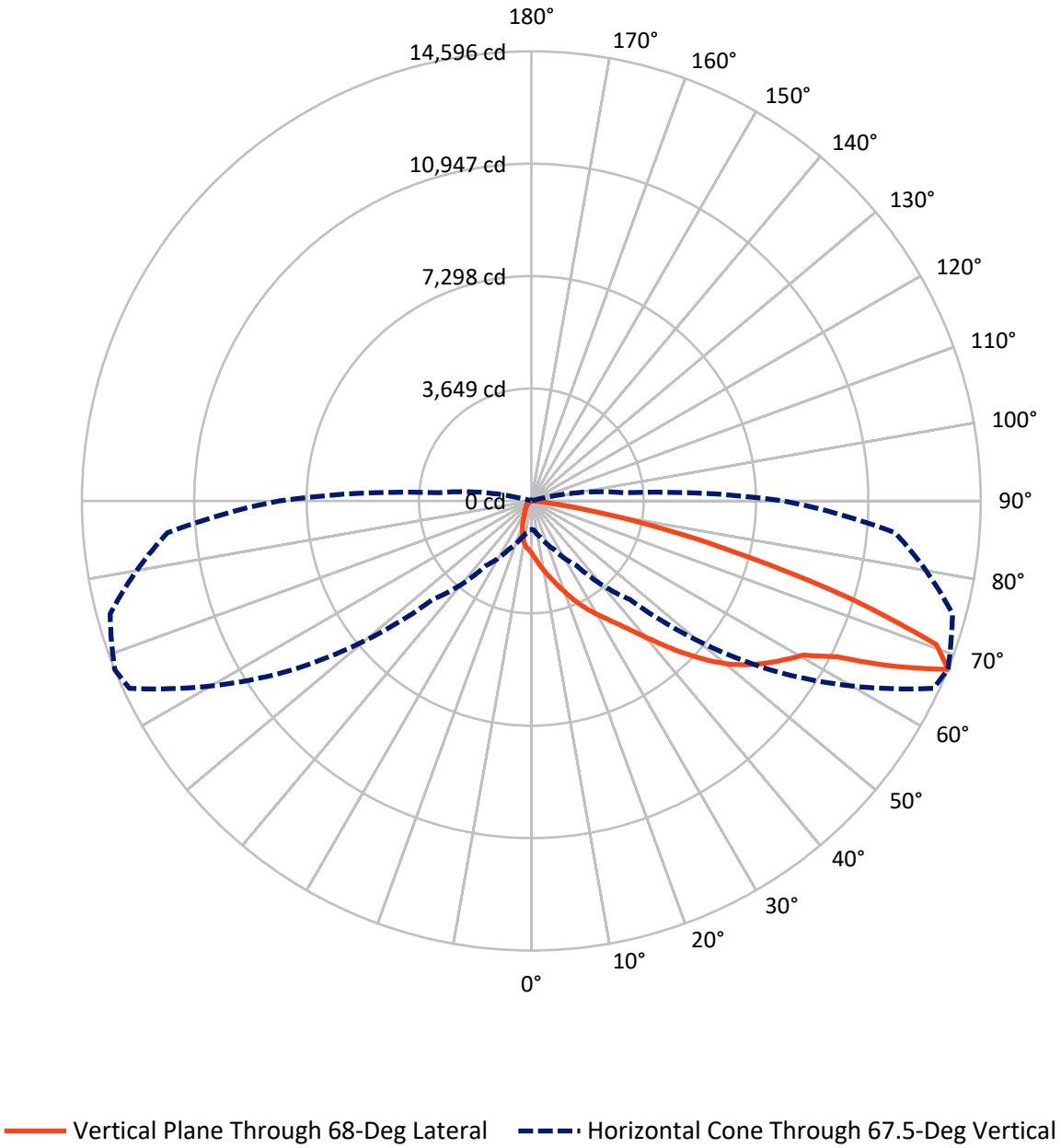
Luminous Intensity Polar Plot



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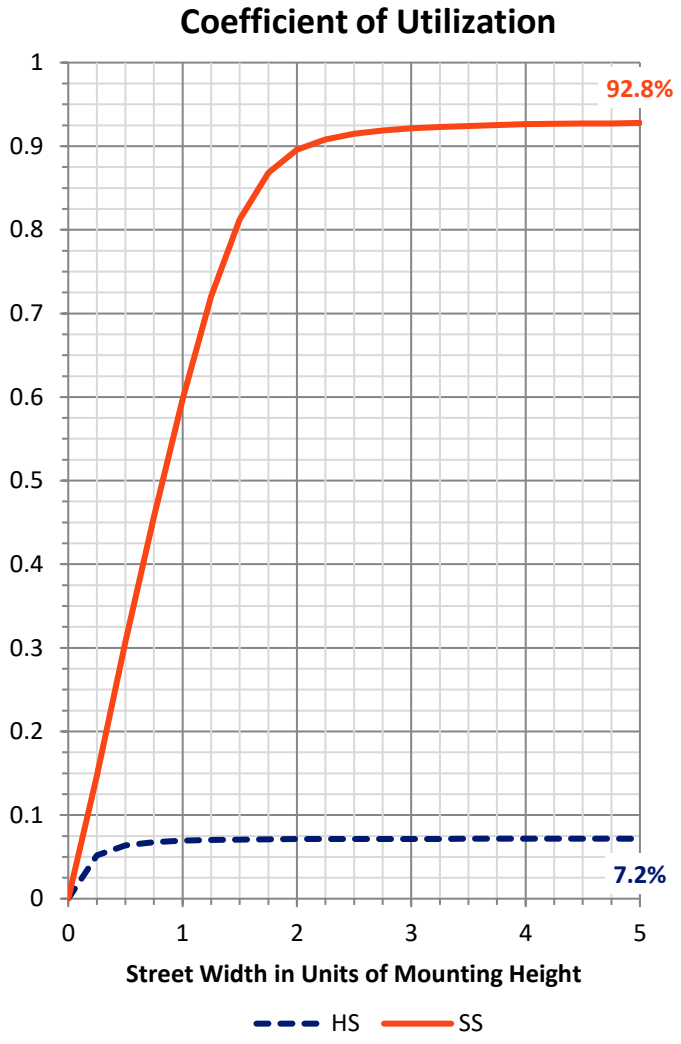
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1052.3	0.0	1052.3
	% Fixture	7.2	0.0	7.2
Street Side	Lumens	13519.7	0.0	13519.7
	% Fixture	92.8	0.0	92.8
Total	Lumens	14572.0	0.0	14572.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	165.4	1.1
10°-20°	475.0	3.3
20°-30°	816.2	5.6
30°-40°	1419.1	9.7
40°-50°	2476.2	17.0
50°-60°	3734.7	25.6
60°-70°	3744.9	25.7
70°-80°	1652.3	11.3
80°-90°	88.3	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°	14572.0	100.0
0°-180°	14572.0	100.0



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REPORT NUMBER: P637995
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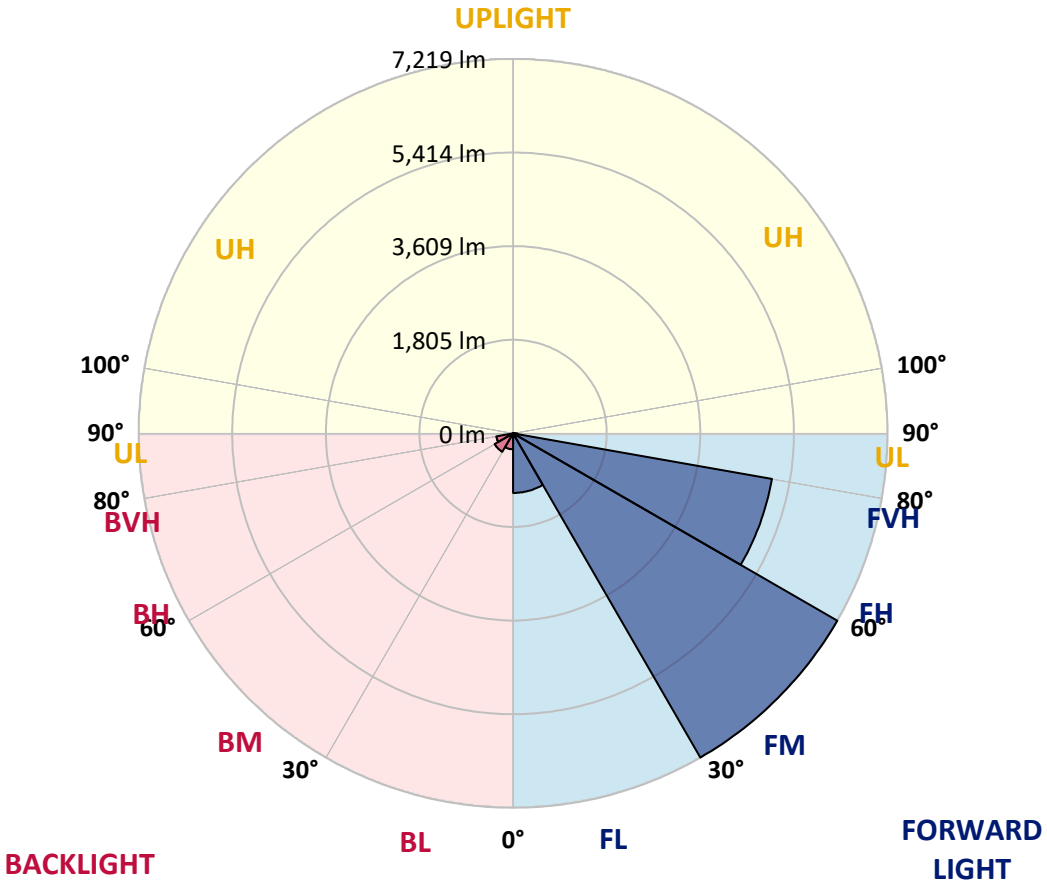
LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	1148.7	7.9			
FM	(30°-60°)	7218.9	49.5			
FH	(60°-80°)	5068.8	34.8			G3/7500
FVH	(80°-90°)	83.3	0.6			G1/100
BL	(0°-30°)	307.8	2.1	B1/500		
BM	(30°-60°)	411.0	2.8	B1/1000		
BH	(60°-80°)	328.4	2.3	B1/500		G1/500
BVH	(80°-90°)	5.0	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G3
Type II Short



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Scaled Data Report

REPORT NUMBER: P637995
CATALOG NUMBER: GWS-SA4D-830-U-T2-W-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	68°	75°	85°
0°	1695.8	1695.8	1695.8	1695.8	1695.8	1695.8	1695.8	1695.8	*1695.8*	1695.8	1695.8
2.5°	1974.7	1987.3	1974.7	1977.5	1941.3	1924.5	1888.3	1838.1	*1825.5*	1793.4	1744.6
5°	2216.0	2227.1	2214.6	2211.8	2170.0	2139.3	2079.3	1992.9	*1967.8*	1905.0	1808.8
7.5°	2347.1	2354.1	2358.2	2365.2	2349.9	2324.8	2270.4	2163.0	*2136.5*	2034.7	1899.4
10°	2361.0	2366.6	2387.5	2429.4	2460.0	2475.4	2444.7	2345.7	*2303.8*	2204.8	2011.0
12.5°	2322.0	2330.3	2363.8	2433.5	2518.6	2596.7	2616.2	2529.8	*2492.1*	2365.2	2142.1
15°	2270.4	2277.4	2323.4	2418.2	2546.5	2690.1	2771.0	2733.4	*2691.5*	2559.1	2287.1
17.5°	2190.9	2200.6	2264.8	2393.1	2559.1	2764.1	2938.4	2950.9	*2921.6*	2778.0	2447.5
20°	2146.3	2153.2	2210.4	2342.9	2550.7	2818.4	3094.6	3213.1	*3181.0*	3030.4	2631.6
22.5°	2183.9	2189.5	2227.1	2330.3	2522.8	2849.1	3239.6	3475.3	*3457.2*	3301.0	2825.4
25°	2381.9	2400.1	2377.8	2395.9	2535.3	2865.9	3356.8	3737.5	*3741.7*	3584.1	3026.2
27.5°	2783.6	2759.9	2706.9	2616.2	2633.0	2910.5	3457.2	3984.3	*4020.6*	3860.2	3204.7
30°	3192.2	3178.2	3146.2	3005.3	2888.2	3009.5	3542.2	4236.7	*4293.9*	4132.1	3363.7
32.5°	3651.0	3665.0	3607.8	3439.0	3239.6	3210.3	3630.1	4476.6	*4584.0*	4440.3	3550.6
35°	4199.1	4203.3	4090.3	3903.4	3677.5	3542.2	3787.7	4741.6	*4939.6*	4833.6	3800.2
37.5°	4733.2	4758.3	4696.9	4402.7	4201.9	3955.0	4048.5	5081.9	*5360.8*	5318.9	4114.0
40°	5206.0	5245.0	5225.5	4941.0	4677.4	4469.6	4452.9	5480.7	*5869.8*	5917.2	4528.2
42.5°	5582.5	5607.6	5622.9	5420.7	5187.8	5070.7	4952.2	5943.7	*6470.9*	6664.7	5035.8
45°	5980.0	5988.3	6020.4	5883.7	5680.1	5689.9	5542.1	6505.7	*7104.0*	7493.1	5618.8
47.5°	6486.2	6514.1	6498.7	6355.1	6171.0	6281.2	6151.5	7084.5	*7728.8*	8377.2	6215.6
50°	7102.6	7131.9	7117.9	6950.6	6745.6	6791.6	6710.7	7646.5	*8331.2*	9211.2	6712.1
52.5°	7420.6	7444.3	7617.2	7692.5	7585.1	7292.3	7187.7	8264.3	*8840.2*	9897.3	7168.1
55°	7267.2	7283.9	7660.4	7978.4	8371.7	8078.8	7667.4	8741.2	*9289.3*	10432.9	7507.0
57.5°	6631.2	6721.9	7233.7	7772.0	8599.0	8855.6	8445.6	9260.0	*9721.6*	10805.2	7840.3
60°	5327.3	5323.1	6056.7	7023.1	8155.5	9069.0	9544.5	9961.5	*10155.3*	11091.1	8286.6
62.5°	2944.0	2970.5	3946.7	5219.9	6922.7	8516.7	10368.7	11173.4	*11144.1*	11590.4	8985.3
65°	1465.7	1518.7	2048.6	2990.0	4606.3	7038.4	10511.0	13022.6	*12938.9*	12766.0	10428.7
67.5°	*930.2*	*951.1*	*1244.0*	*1737.6*	*2560.5*	*4524.0*	*9625.4*	*14401.8*	*14595.7*	*14160.6*	*11860.9*
70°	602.5	637.3	864.6	1188.2	1545.2	2331.7	7051.0	13507.9	*13952.8*	14007.2	10968.4
72.5°	327.7	352.8	552.3	847.9	1115.7	1165.9	3960.6	10137.2	*10852.6*	11881.8	8580.9
75°	186.9	205.0	302.6	576.0	818.6	709.8	1755.8	6786.0	*7242.1*	8491.6	6148.7
77.5°	113.0	128.3	170.1	280.3	513.2	474.2	663.8	4130.7	*4420.8*	5066.5	3227.1
80°	51.6	61.4	107.4	154.8	280.3	224.5	253.8	1925.9	*1988.7*	2079.3	1068.2
82.5°	23.7	27.9	48.8	92.0	159.0	129.7	97.6	444.9	*626.2*	592.7	271.9
85°	2.8	2.8	18.1	37.7	44.6	33.5	40.4	100.4	*126.9*	178.5	78.1
87.5°	0.0	0.0	1.4	1.4	2.8	4.2	8.4	12.6	*18.1*	29.3	19.5
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: P637995
CATALOG NUMBER: GWS-SA4D-830-U-T2-W-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1695.8	1695.8	1695.8	1695.8	1695.8	1695.8	1695.8	1695.8	1695.8	1695.8	1695.8
2.5°	1722.3	1683.3	1648.4	1596.8	1561.9	1522.9	1496.4	1464.3	1451.8	1442.0	1428.1
5°	1761.4	1698.6	1613.5	1518.7	1440.6	1366.7	1298.4	1253.7	1214.7	1209.1	1189.6
7.5°	1825.5	1732.1	1588.4	1433.6	1301.1	1178.4	1082.2	1004.1	965.0	952.5	930.2
10°	1910.6	1782.3	1550.8	1313.7	1122.6	976.2	867.4	779.6	718.2	695.9	679.2
12.5°	2005.4	1828.3	1490.8	1165.9	948.3	781.0	642.9	549.5	510.4	496.5	483.9
15°	2114.2	1871.5	1396.0	1018.0	778.2	574.6	476.9	436.5	419.8	415.6	411.4
17.5°	2218.8	1899.4	1283.0	864.6	598.3	446.3	400.2	384.9	380.7	376.5	373.7
20°	2337.3	1918.9	1150.5	719.6	464.4	377.9	355.6	344.5	336.1	327.7	326.3
22.5°	2458.6	1918.9	1006.9	577.4	389.1	338.9	313.8	292.9	277.5	269.2	266.4
25°	2574.4	1892.4	864.6	461.6	343.1	301.2	269.2	245.4	224.5	214.8	212.0
27.5°	2656.7	1824.1	740.5	390.5	311.0	267.8	228.7	202.2	185.5	175.7	174.3
30°	2708.3	1722.3	626.2	348.6	283.1	232.9	193.8	171.5	159.0	152.0	149.2
32.5°	2747.3	1596.8	524.4	319.4	256.6	202.2	168.7	150.6	139.5	133.9	132.5
35°	2825.4	1478.3	449.1	292.9	228.7	177.1	147.8	133.9	125.5	118.5	117.1
37.5°	2934.2	1379.2	389.1	269.2	202.2	157.6	133.9	121.3	114.4	107.4	106.0
40°	3094.6	1316.5	344.5	245.4	178.5	142.2	122.7	111.6	101.8	94.8	93.4
42.5°	3341.4	1287.2	315.2	221.7	157.6	128.3	113.0	99.0	89.3	82.3	80.9
45°	3635.7	1302.5	290.1	198.0	143.6	118.5	100.4	86.5	76.7	69.7	68.3
47.5°	3950.8	1356.9	269.2	175.7	129.7	108.8	89.3	73.9	65.5	58.6	57.2
50°	4280.0	1446.2	251.0	154.8	118.5	97.6	76.7	64.2	55.8	50.2	48.8
52.5°	4565.9	1567.5	232.9	139.5	108.8	86.5	66.9	55.8	47.4	41.8	40.4
55°	4839.2	1681.9	218.9	125.5	97.6	75.3	58.6	47.4	40.4	34.9	33.5
57.5°	5136.2	1803.2	202.2	113.0	87.9	66.9	51.6	40.4	34.9	29.3	27.9
60°	5568.6	1983.1	177.1	103.2	76.7	58.6	44.6	36.3	30.7	23.7	22.3
62.5°	6191.9	2310.8	149.2	89.3	65.5	50.2	37.7	30.7	25.1	19.5	16.7
65°	7357.8	2868.7	122.7	73.9	53.0	41.8	32.1	25.1	19.5	13.9	12.6
67.5°	*8197.3*	*3013.7*	*99.0*	*60.0*	*43.2*	*32.1*	*26.5*	*19.5*	*13.9*	*9.8*	*8.4*
70°	7166.8	2164.4	76.7	48.8	36.3	25.1	20.9	15.3	9.8	7.0	5.6
72.5°	5399.8	1414.1	57.2	37.7	27.9	20.9	15.3	12.6	8.4	5.6	4.2
75°	3805.8	817.2	41.8	27.9	19.5	15.3	12.6	9.8	7.0	4.2	4.2
77.5°	1951.0	337.5	29.3	19.5	13.9	9.8	8.4	5.6	5.6	4.2	2.8
80°	592.7	111.6	16.7	12.6	9.8	7.0	4.2	4.2	4.2	2.8	1.4
82.5°	135.3	36.3	9.8	9.8	7.0	5.6	4.2	1.4	1.4	0.0	0.0
85°	34.9	11.2	8.4	7.0	7.0	5.6	2.8	1.4	0.0	0.0	0.0
87.5°	12.6	7.0	7.0	7.0	5.6	4.2	2.8	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

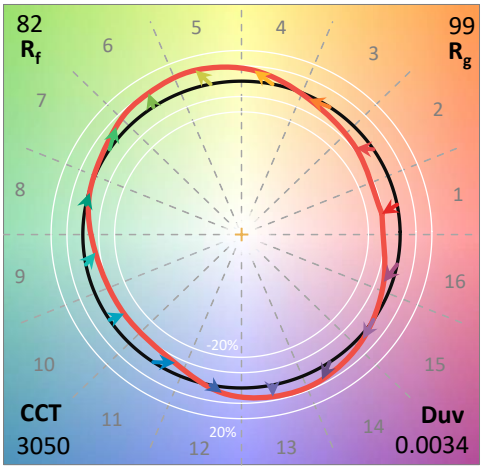
Test Information

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

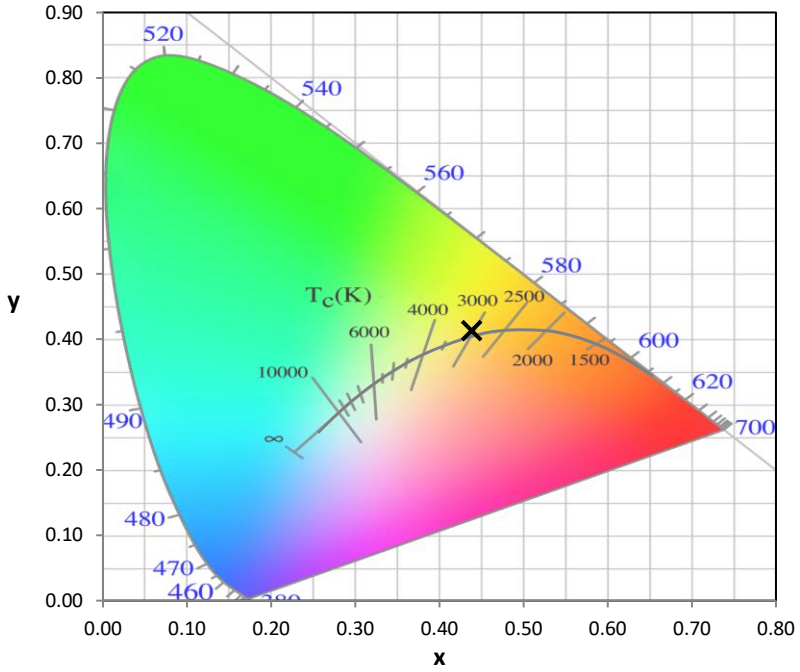
Stabilization Time:	20M
Operation Time:	1H 20M
Sphere Temperature (°C):	24.2

REPORT NUMBER: SP1-2408-195-9

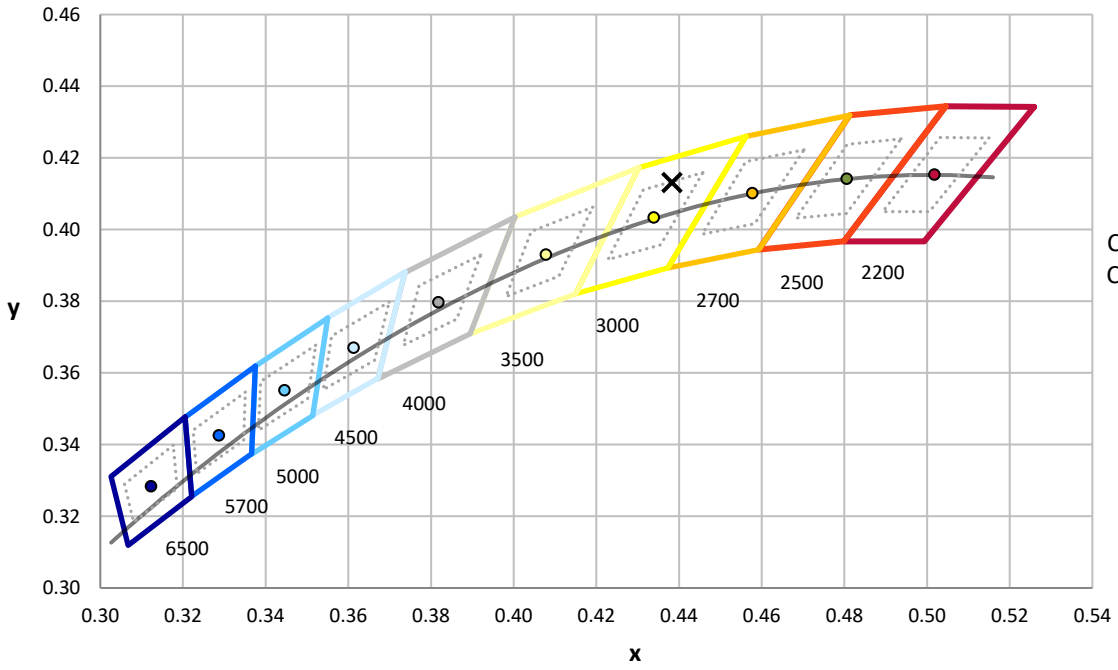
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

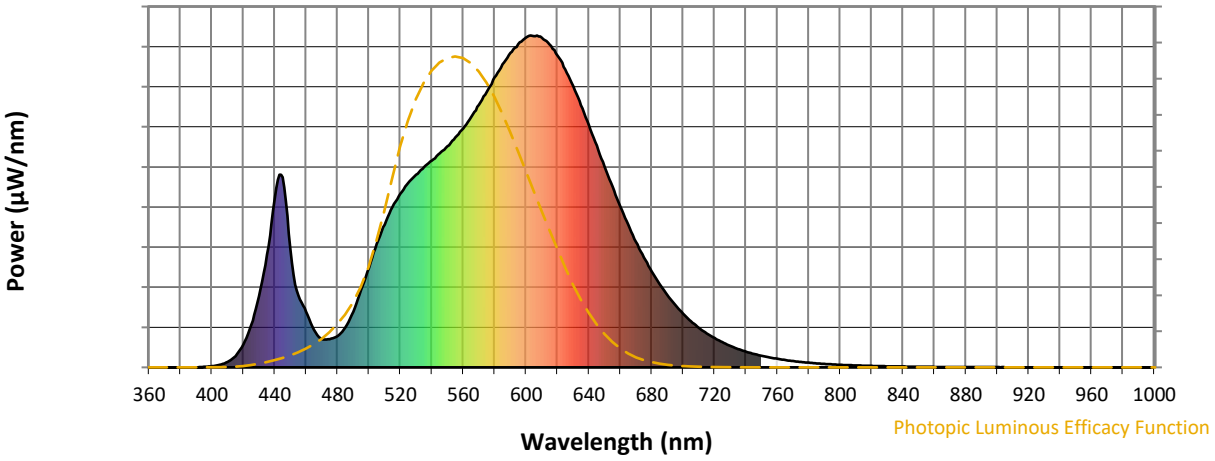


CCT = 3050K
CIE x = 0.4383
CIE y = 0.4131
Duv = 0.0034

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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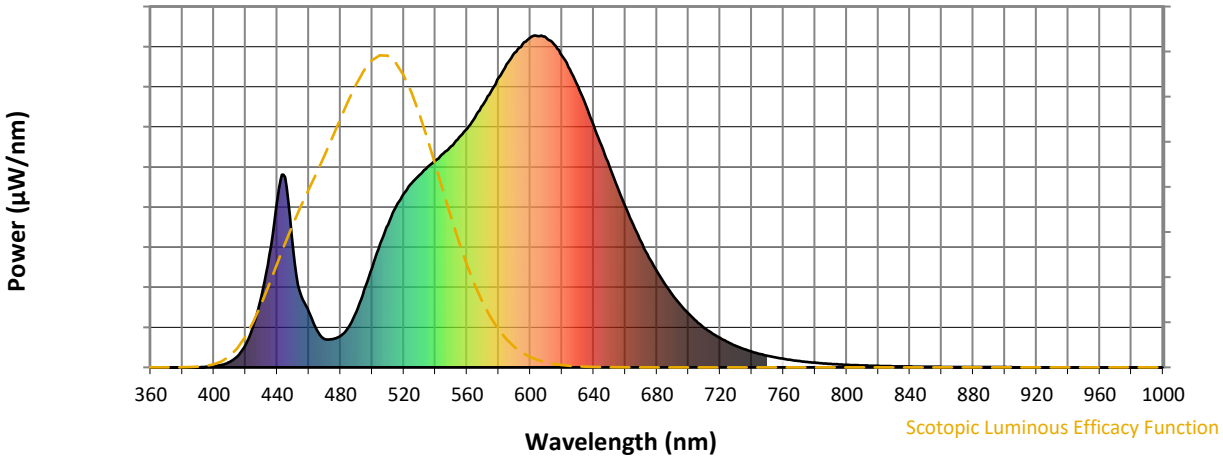
Scotopic Flux vs. Wavelength



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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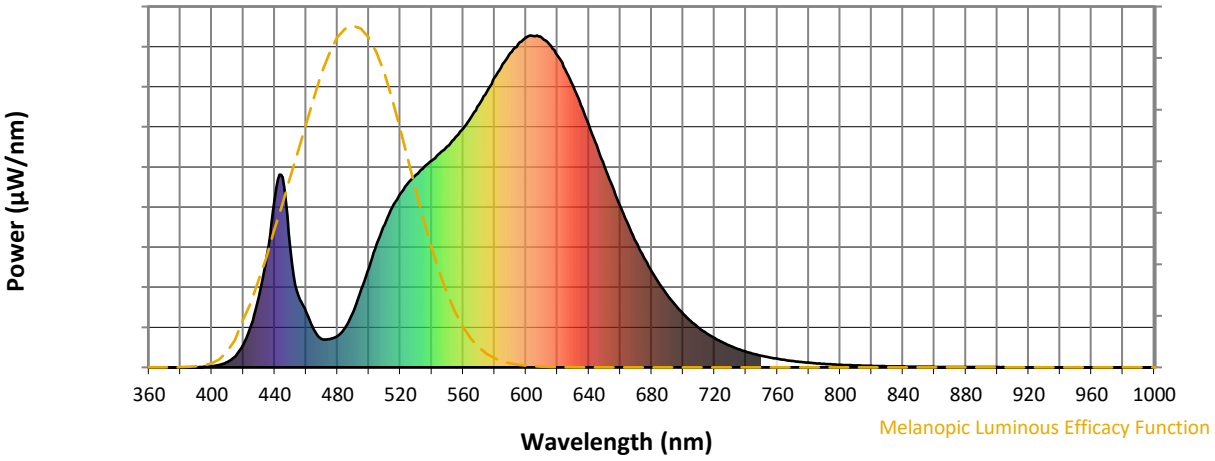
Melanopic Flux vs. Wavelength



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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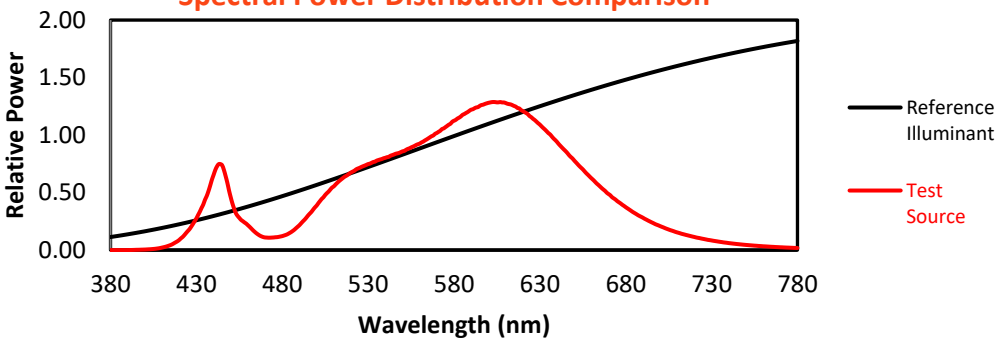
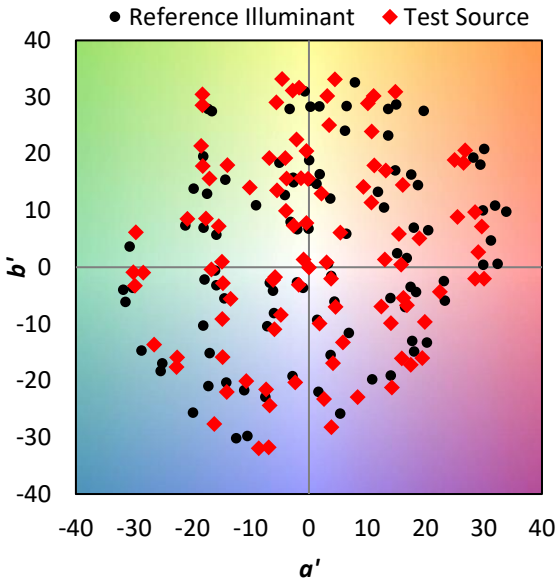
Summary

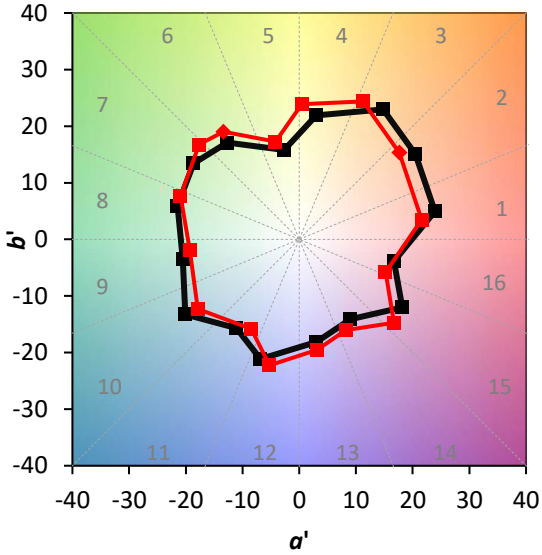
R_f = 81.5
R_g = 99.2
CIE R_a = 81.0
R_9 = 7.1

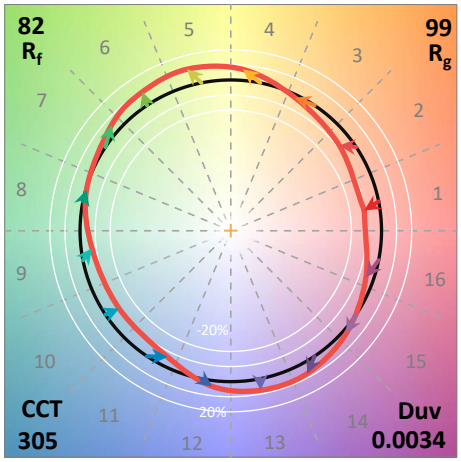
Spectral Power Distribution Comparison

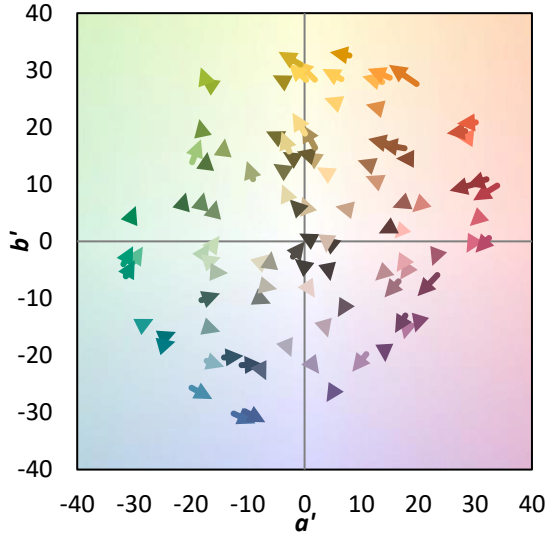


Color Vector Graphics









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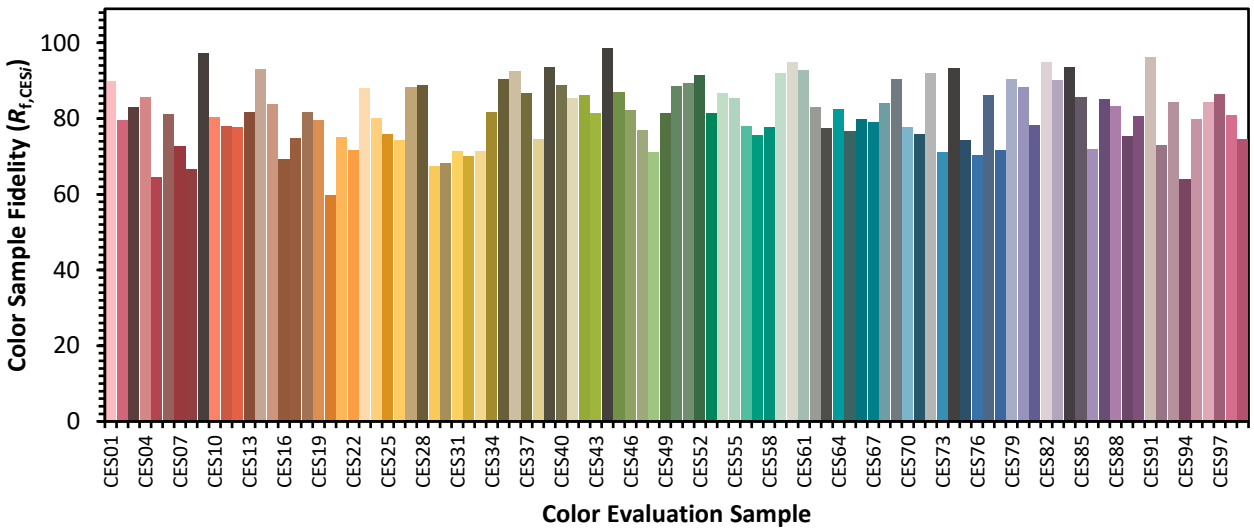
Individual Sample Fidelity Index ($R_{f,i}$)

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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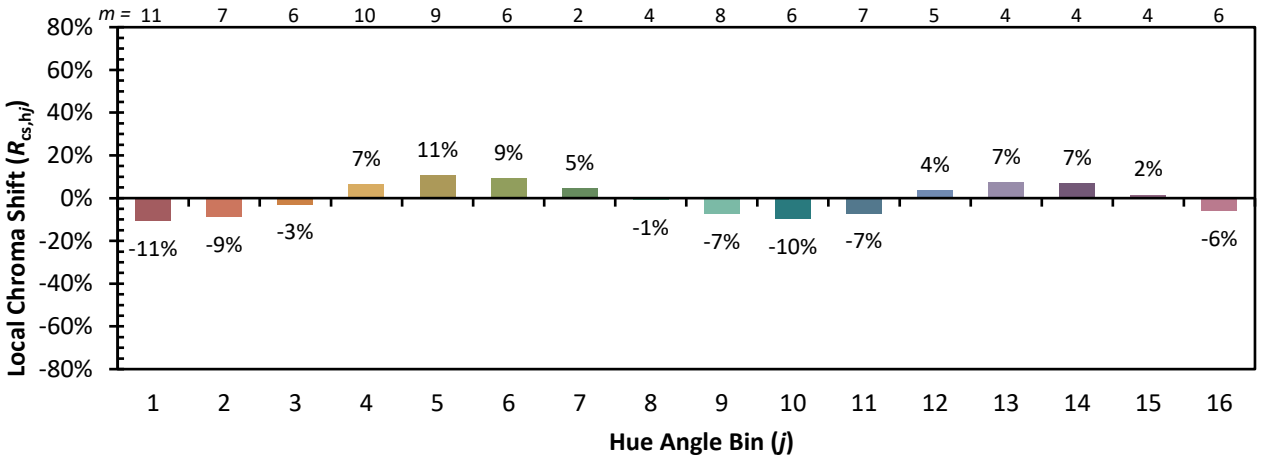
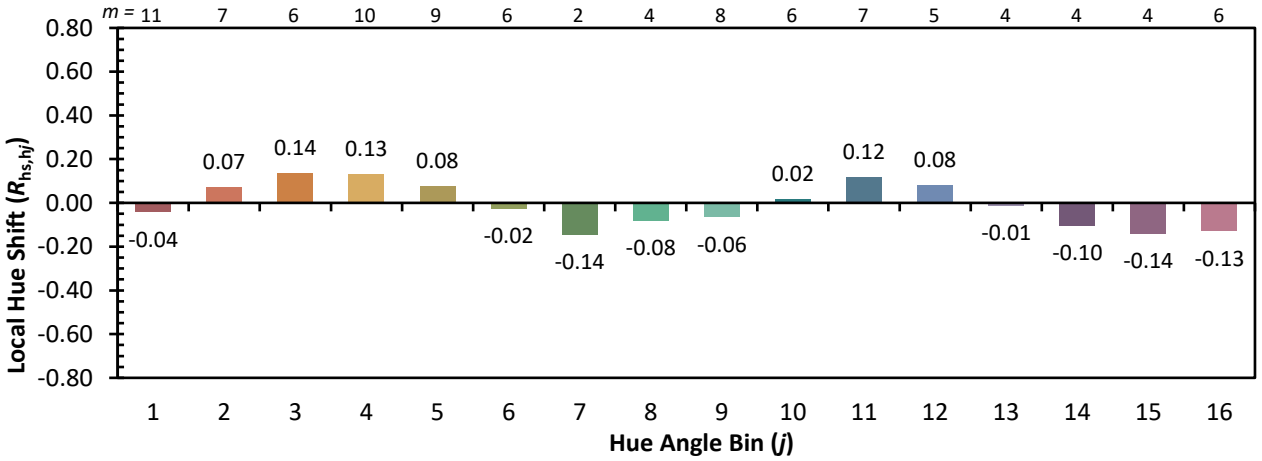
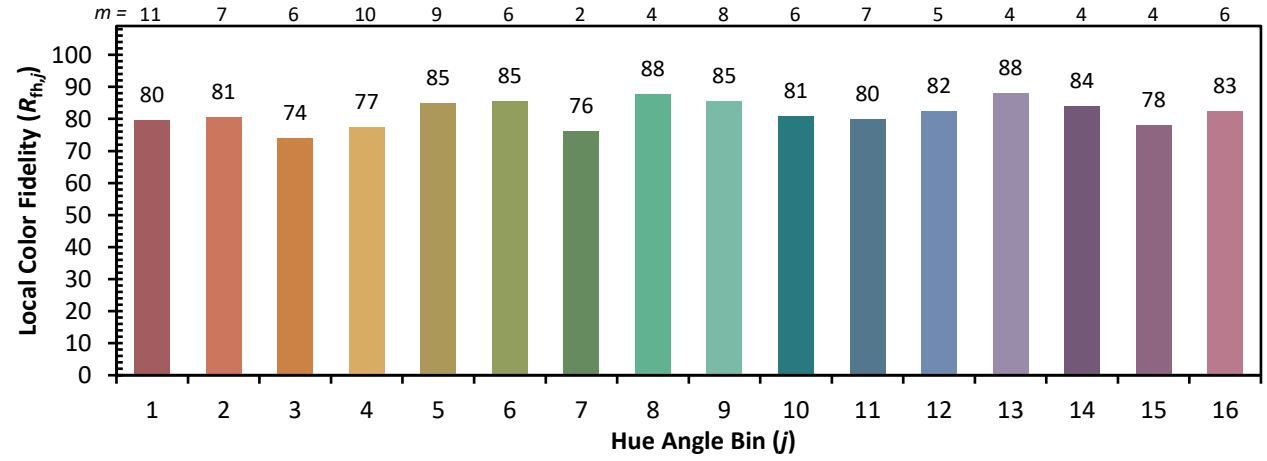
Color Rendition by Hue-Angle Bin







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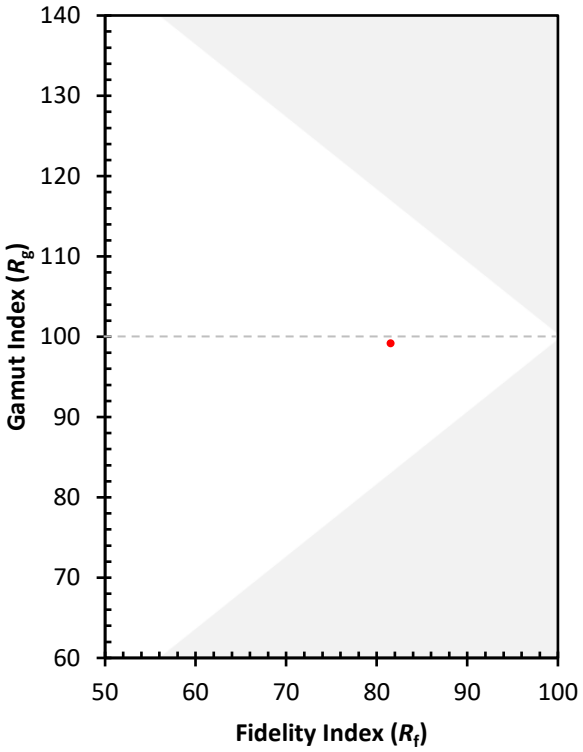
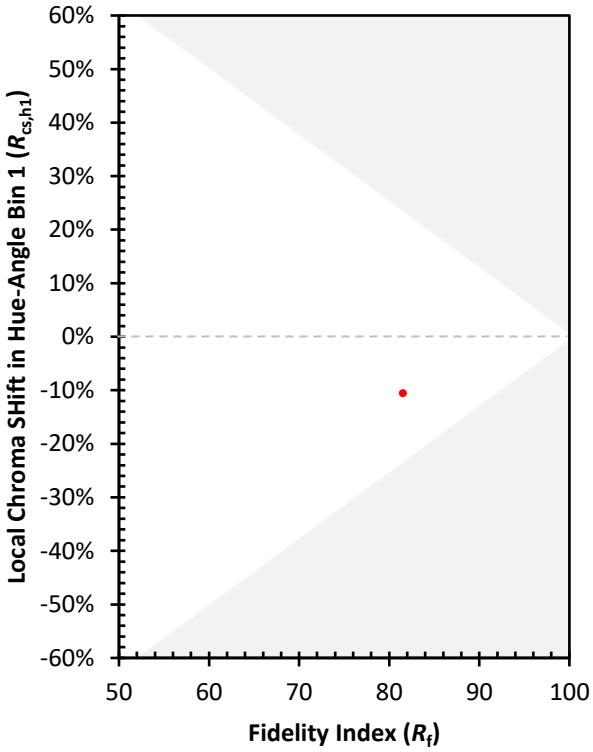
Measure Comparisons





(END OF REPORT)