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: P637971

Luminaire Tested: GWS-SA4D-830-U-RW-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:	P637971
	TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-50)
Test Lab:	COOPER LIGHTING SOLUTIONS
Issue Date:	1/10/2023
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	McGRAW-EDISON
Catalog Number:	GWS-SA4D-830-U-RW-W-GRSBK
Description:	GALLEON WALL SLIM LUMINAIRE. (4) LIGHTSQUARES WITH 16 LEDS EACH AND RECTANGULAR WIDE 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:	12608.4 lumens
Efficiency:	N/A
Efficacy:	77.8 lumens/watt
Luminous Opening:	Rectangular (W 1' x L: 1' x H: 0')
IES Classification:	Type V - Short
BUG Rating:	B3 - U0 - G0

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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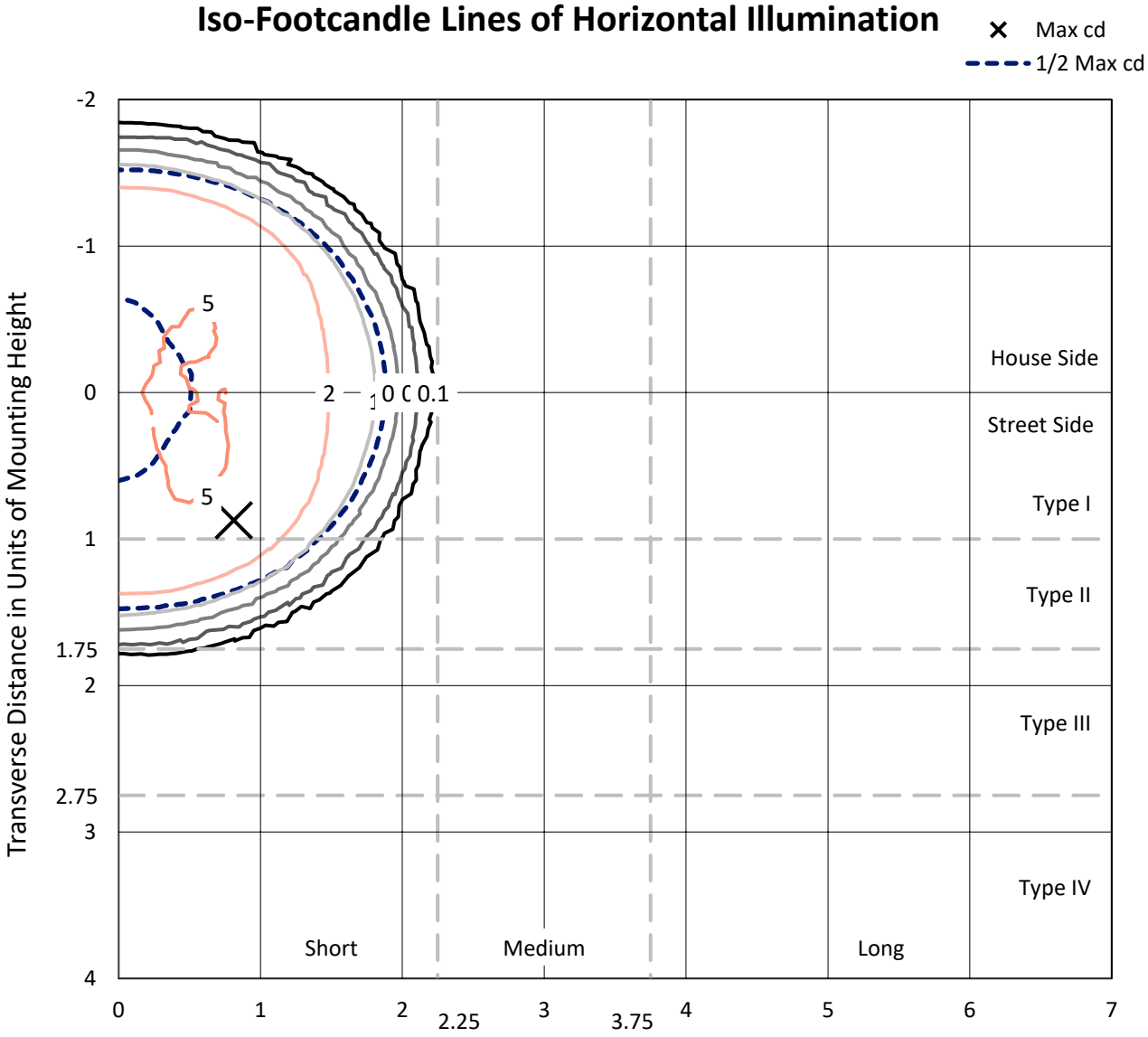
REPORT NUMBER: P637971
CATALOG NUMBER: GWS-SA4D-830-U-RW-W-GRSBK

Iso-Footcandle Lines of Horizontal Illumination



Based on 20 foot mounting height. Maximum calculated value = 5.4 fc
Type V - Short - N/A

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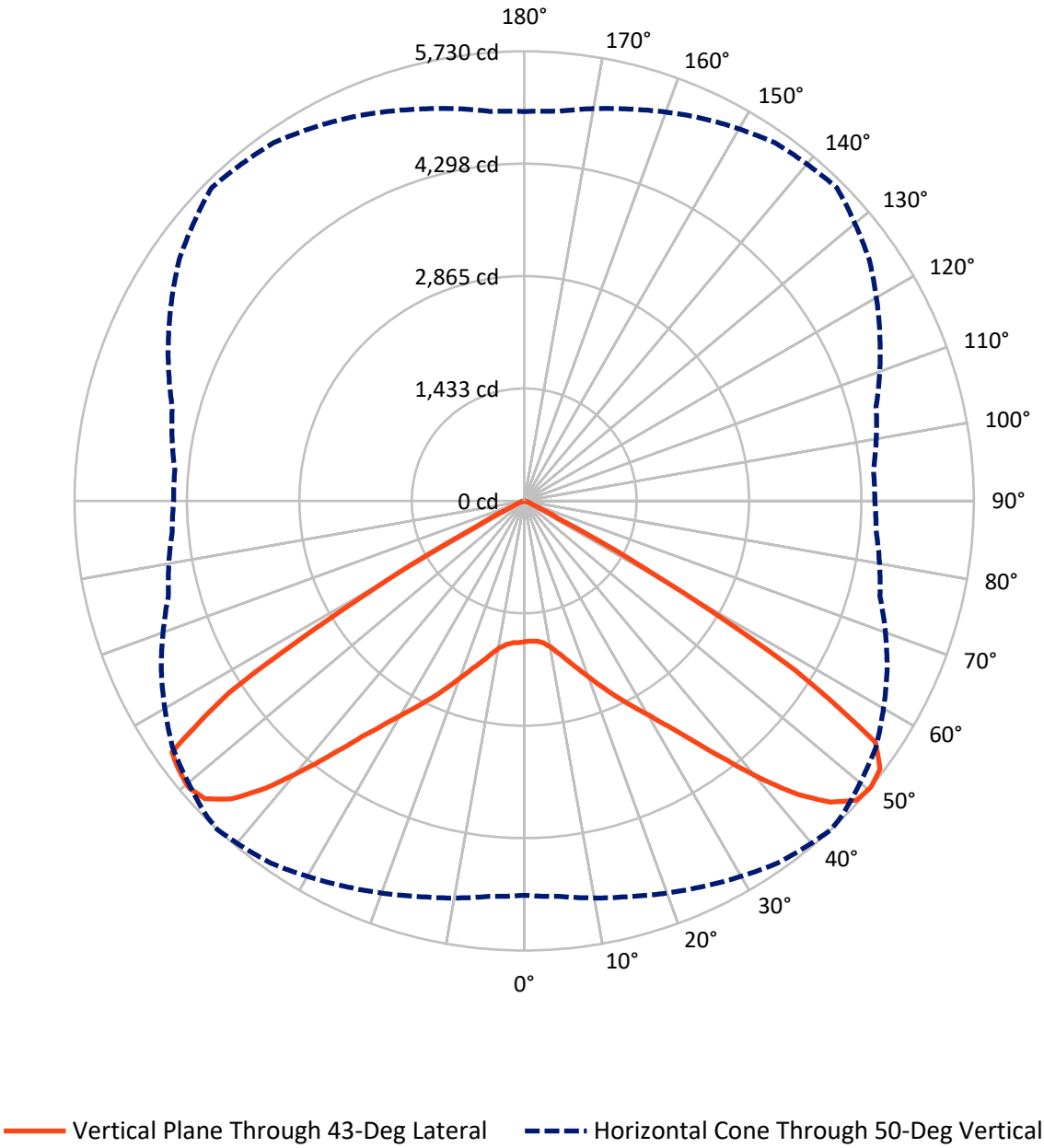
Luminous Intensity Polar Plot



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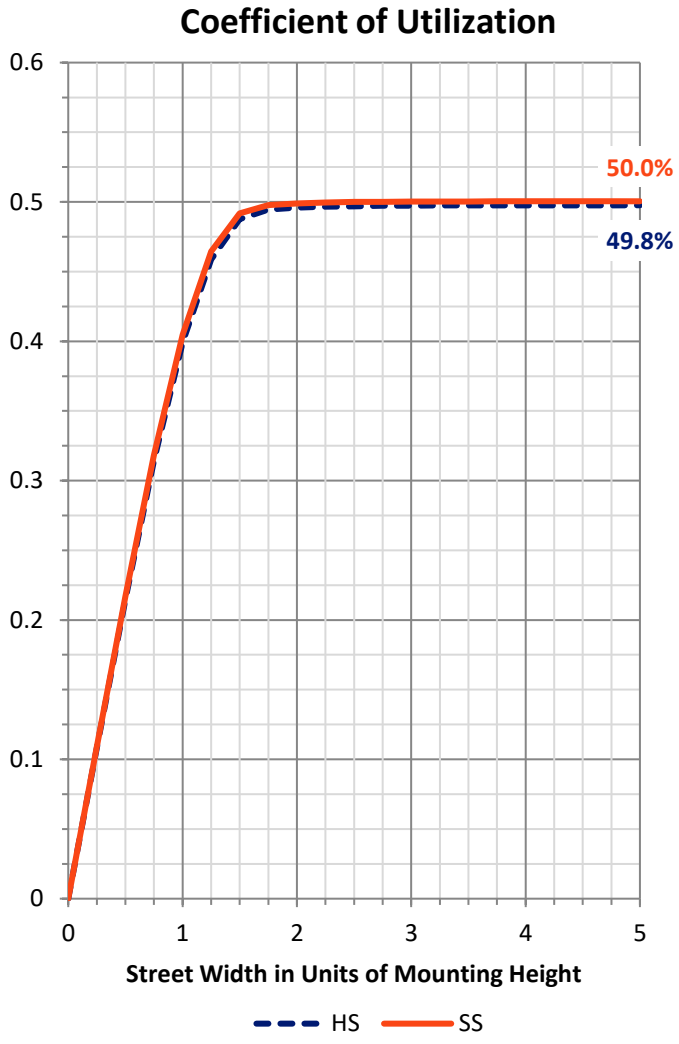
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6304.0	0.0	6304.0
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	6304.4	0.0	6304.4
	% Fixture	50.0	0.0	50.0
Total	Lumens	12608.4	0.0	12608.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	176.6	1.4
10°-20°	607.7	4.8
20°-30°	1229.6	9.8
30°-40°	2281.3	18.1
40°-50°	3786.8	30.0
50°-60°	3864.6	30.7
60°-70°	633.7	5.0
70°-80°	27.7	0.2
80°-90°	0.4	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°	12608.4	100.0
0°-180°	12608.4	100.0



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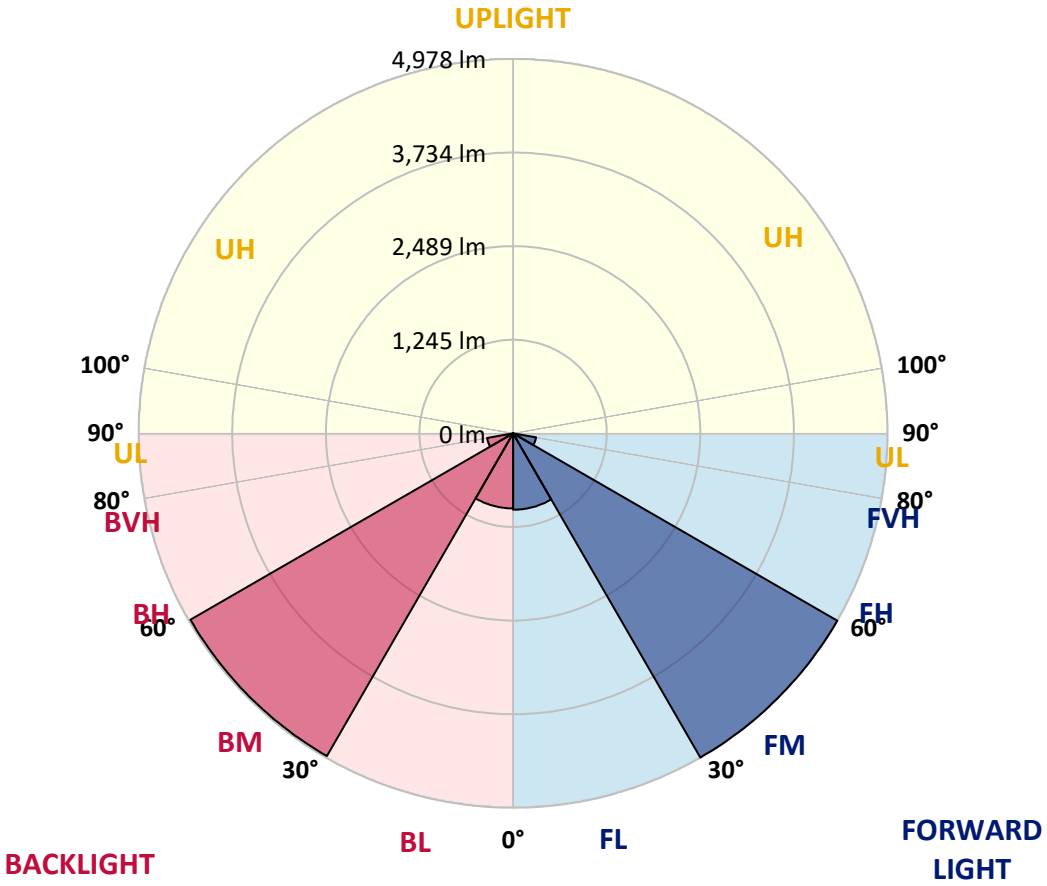
LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	1015.8	8.1			
FM	(30°-60°)	4978.4	39.5			
FH	(60°-80°)	310.0	2.5			G0/660
FVH	(80°-90°)	0.1	0.0			G0/10
BL	(0°-30°)	998.1	7.9	B2/1000		
BM	(30°-60°)	4954.2	39.3	B3/5000		
BH	(60°-80°)	351.5	2.8	B1/500		G0/660
BVH	(80°-90°)	0.2	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-G0
Type V Short



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REPORT NUMBER: P637971
CATALOG NUMBER: GWS-SA4D-830-U-RW-W-GRSBK

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	43°	45°	55°	65°	75°	85°
0°	1793.3	1793.3	1793.3	1793.3	1793.3	1793.3	1793.3	1793.3	1793.3	1793.3	1793.3
2.5°	1759.9	1764.1	1769.6	1775.2	1782.2	1789.2	1793.3	1805.9	1803.1	1814.3	1814.3
5°	1740.4	1744.5	1751.5	1764.1	1779.4	1794.7	1805.9	1831.0	1844.9	1867.3	1875.6
7.5°	1750.1	1755.7	1764.1	1783.6	1807.3	1831.0	1843.5	1884.0	1911.9	1953.7	1977.4
10°	1782.2	1787.8	1801.7	1835.2	1865.9	1899.3	1914.7	1966.3	2010.9	2068.1	2101.5
12.5°	1818.4	1825.4	1853.3	1903.5	1956.5	2001.1	2022.0	2079.2	2125.2	2189.4	2242.4
15°	1856.1	1867.3	1910.5	1984.4	2059.7	2119.7	2142.0	2203.3	2249.4	2317.7	2377.6
17.5°	1944.0	1956.5	2005.3	2084.8	2188.0	2257.7	2277.2	2341.4	2376.3	2422.3	2485.0
20°	2054.1	2077.8	2137.8	2234.0	2347.0	2413.9	2427.8	2490.6	2487.8	2507.3	2561.7
22.5°	2190.8	2207.5	2273.1	2387.4	2514.3	2588.2	2620.3	2646.8	2611.9	2595.2	2630.1
25°	2333.0	2352.5	2423.7	2549.2	2691.4	2776.5	2803.0	2823.9	2768.1	2705.4	2709.5
27.5°	2517.1	2531.0	2600.8	2734.6	2876.9	2973.1	2996.8	3033.1	2959.2	2858.8	2830.9
30°	2736.0	2750.0	2823.9	2964.7	3105.6	3187.9	3224.1	3268.7	3187.9	3062.4	3030.3
32.5°	2992.6	3006.6	3101.4	3246.4	3362.2	3451.4	3486.3	3533.7	3469.6	3328.7	3292.4
35°	3299.4	3307.8	3419.3	3576.9	3699.6	3786.1	3809.8	3865.6	3794.5	3653.6	3634.1
37.5°	3655.0	3664.8	3786.1	3968.8	4094.3	4190.5	4228.2	4243.5	4157.0	3999.5	3984.1
40°	4045.5	4077.6	4196.1	4392.7	4533.6	4654.9	4688.4	4636.8	4515.4	4300.7	4272.8
42.5°	4452.7	4480.6	4613.1	4826.4	4989.6	5113.7	5115.1	5003.5	4797.1	4500.1	4458.3
45°	4791.6	4802.7	4974.2	5189.0	5389.8	5477.7	5486.0	5283.8	4972.8	4615.8	4526.6
47.5°	5024.4	5042.6	5191.8	5398.2	5619.9	5699.4	5682.6	5430.2	5056.5	4691.1	4543.3
50°	5027.2	5057.9	5219.7	5419.1	5633.8	5730.1	5706.4	5472.1	5103.9	4693.9	4502.9
52.5°	4582.4	4632.6	4896.1	5184.8	5513.9	5678.5	5684.0	5526.5	5085.8	4649.3	4466.6
55°	3457.0	3511.4	3843.3	4335.5	4971.4	5430.2	5509.7	5462.3	5064.9	4668.8	4530.8
57.5°	1829.6	1787.8	1971.8	2459.9	3259.0	4070.6	4303.5	4682.8	4832.0	4692.5	4649.3
60°	398.8	425.3	566.2	762.8	1271.8	1914.7	2142.0	2791.8	3564.4	3907.4	4155.7
62.5°	171.5	168.7	175.7	199.4	291.5	485.3	592.7	967.8	1527.0	2097.3	2483.6
65°	140.8	142.2	147.8	147.8	138.1	139.5	146.4	221.7	357.0	500.6	672.2
67.5°	106.0	107.4	117.1	119.9	113.0	100.4	99.0	83.7	87.9	110.2	114.4
70°	66.9	66.9	72.5	75.3	75.3	69.7	68.3	60.0	58.6	66.9	75.3
72.5°	36.3	36.3	39.0	40.4	39.0	37.7	37.7	36.3	34.9	40.4	51.6
75°	15.3	15.3	16.7	16.7	15.3	15.3	15.3	15.3	15.3	18.1	27.9
77.5°	2.8	4.2	5.6	4.2	2.8	2.8	2.8	4.2	4.2	5.6	8.4
80°	1.4	1.4	2.8	1.4	0.0	0.0	0.0	0.0	1.4	1.4	1.4
82.5°	1.4	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4
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-SA4D-830-U-RW-W-GRSBK

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1793.3	1793.3	1793.3	1793.3	1793.3	1793.3	1793.3	1793.3	1793.3	1793.3	1793.3
2.5°	1824.0	1808.7	1814.3	1817.1	1812.9	1810.1	1794.7	1790.6	1783.6	1772.4	1769.6
5°	1885.4	1872.8	1871.4	1863.1	1843.5	1819.8	1790.6	1778.0	1764.1	1750.1	1747.3
7.5°	1988.6	1973.2	1963.5	1935.6	1891.0	1853.3	1804.5	1778.0	1759.9	1741.7	1737.6
10°	2121.1	2102.9	2075.0	2023.4	1963.5	1909.1	1851.9	1817.1	1789.2	1764.1	1762.7
12.5°	2261.9	2242.4	2192.2	2126.6	2054.1	2003.9	1931.4	1882.6	1840.8	1803.1	1798.9
15°	2409.7	2386.0	2317.7	2239.6	2172.7	2121.1	2041.6	1963.5	1899.3	1844.9	1839.4
17.5°	2522.7	2493.4	2412.5	2353.9	2299.6	2246.6	2157.3	2054.1	1969.1	1903.5	1888.2
20°	2593.8	2565.9	2489.2	2457.1	2432.0	2394.4	2288.4	2181.0	2086.2	2005.3	1991.4
22.5°	2662.1	2628.7	2561.7	2561.7	2581.2	2565.9	2451.6	2328.8	2217.3	2123.8	2102.9
25°	2738.8	2712.3	2664.9	2704.0	2752.8	2751.4	2634.2	2480.8	2352.5	2248.0	2227.0
27.5°	2850.4	2823.9	2807.2	2881.1	2942.4	2938.2	2809.9	2644.0	2508.7	2405.5	2386.0
30°	3047.0	3021.9	3003.8	3093.0	3171.1	3141.8	3001.0	2840.6	2704.0	2586.8	2572.9
32.5°	3309.2	3282.7	3259.0	3348.2	3418.0	3380.3	3246.4	3095.8	2938.2	2823.9	2796.0
35°	3653.6	3597.8	3574.1	3680.1	3709.4	3667.6	3539.3	3406.8	3239.5	3108.4	3090.2
37.5°	4009.2	3943.7	3927.0	4019.0	4066.4	4051.1	3900.5	3762.4	3581.1	3436.1	3415.2
40°	4313.2	4253.3	4224.0	4367.6	4475.0	4484.8	4349.5	4180.8	3967.4	3816.8	3779.1
42.5°	4491.7	4440.1	4433.2	4656.3	4832.0	4957.5	4795.7	4621.4	4396.9	4226.8	4196.1
45°	4532.2	4498.7	4557.3	4850.1	5123.4	5352.1	5214.1	5030.0	4787.4	4607.5	4578.2
47.5°	4528.0	4516.8	4621.4	4950.5	5296.4	5578.1	5509.7	5301.9	5067.7	4879.4	4851.5
50°	*4468.0*	*4469.4*	*4643.7*	*5000.7*	*5366.1*	*5639.4*	*5571.1*	*5378.6*	*5169.5*	*4984.0*	*4961.7*
52.5°	4444.3	4436.0	4601.9	4985.4	5437.2	5611.5	5458.1	5242.0	5009.1	4780.4	4746.9
55°	4528.0	4507.1	4607.5	4972.8	5445.6	5596.2	5191.8	4723.2	4246.3	3975.8	3953.4
57.5°	4653.5	4631.2	4678.6	4880.8	5009.1	4653.5	3821.0	3065.1	2574.3	2366.5	2275.8
60°	4155.7	4140.3	4104.1	3860.0	3310.6	2497.6	1701.3	1084.9	779.5	630.3	630.3
62.5°	2578.5	2557.5	2360.9	1754.3	1274.6	737.7	405.8	253.8	192.4	179.9	178.5
65°	723.8	719.6	595.5	421.1	267.7	165.9	146.4	149.2	146.4	142.2	140.8
67.5°	108.8	119.9	119.9	97.6	93.4	104.6	122.7	131.1	124.1	117.1	114.4
70°	69.7	75.3	72.5	62.8	66.9	78.1	87.9	89.2	85.1	78.1	76.7
72.5°	48.8	54.4	44.6	40.4	41.8	46.0	50.2	50.2	48.8	46.0	43.2
75°	29.3	29.3	20.9	19.5	19.5	20.9	20.9	23.7	23.7	22.3	20.9
77.5°	9.8	11.2	7.0	5.6	5.6	5.6	7.0	8.4	8.4	7.0	5.6
80°	1.4	2.8	1.4	1.4	1.4	1.4	1.4	1.4	2.8	2.8	1.4
82.5°	1.4	1.4	1.4	0.0	0.0	0.0	0.0	1.4	1.4	1.4	1.4
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	1.4
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

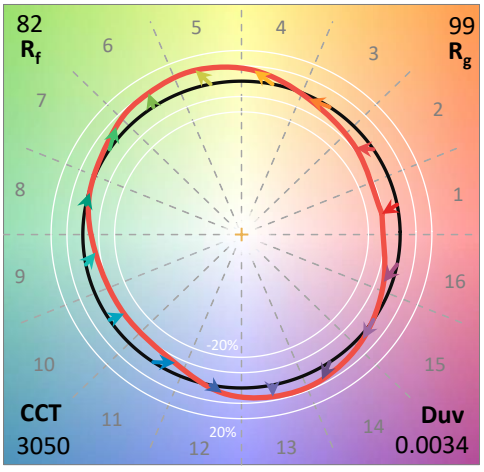
Test Information

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

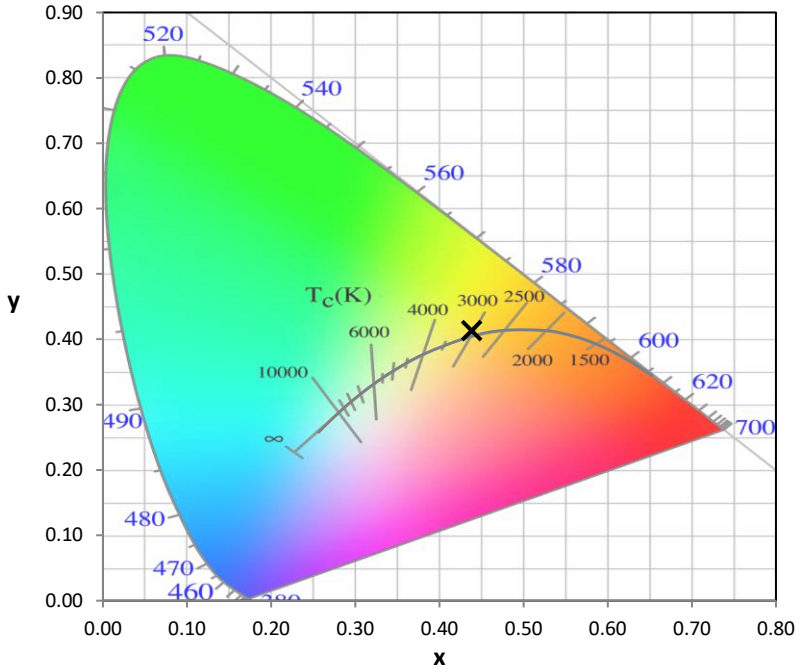
Stabilization Time:	20M
Operation Time:	1H 20M
Sphere Temperature (°C):	24.2

REPORT NUMBER: SP1-2408-195-9

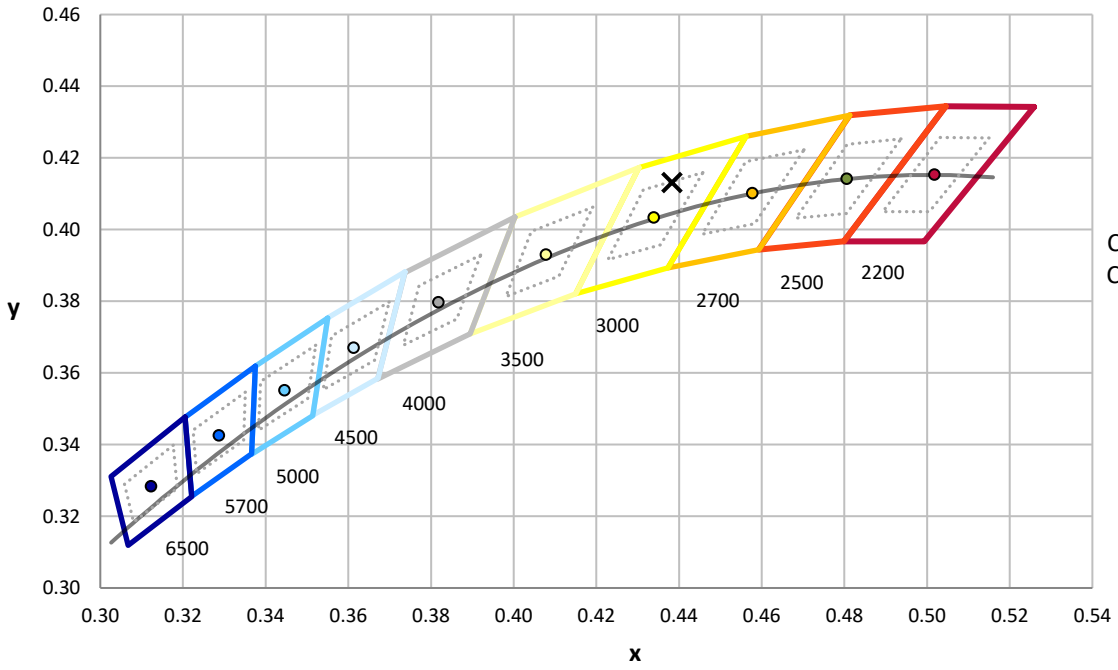
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

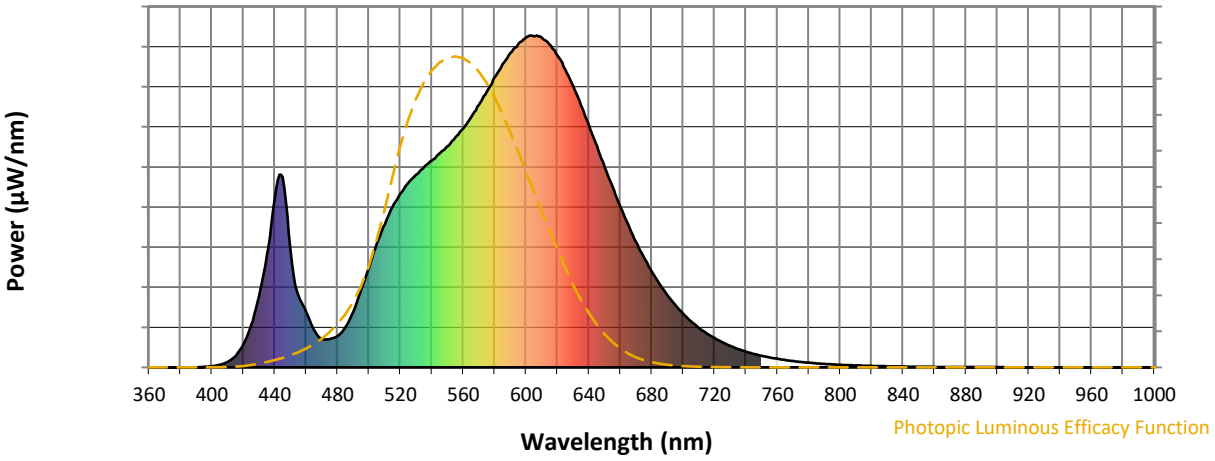


CCT = 3050K
CIE x = 0.4383
CIE y = 0.4131
Duv = 0.0034

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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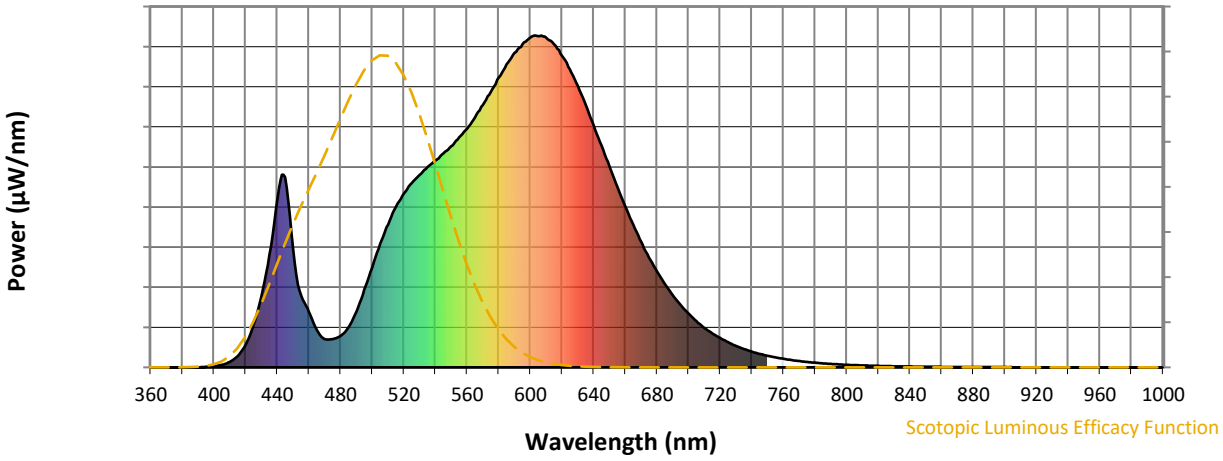
Scotopic Flux vs. Wavelength



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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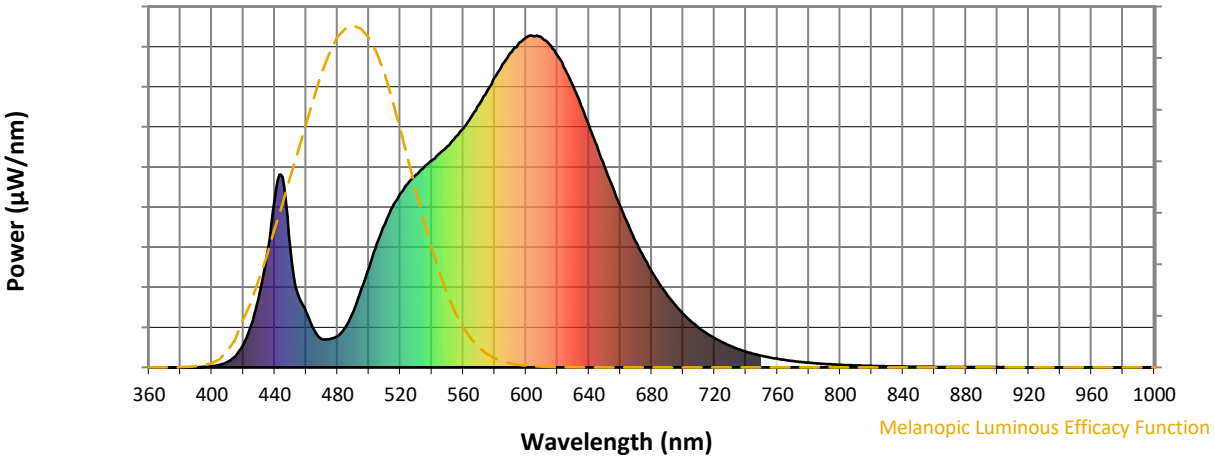
Melanopic Flux vs. Wavelength



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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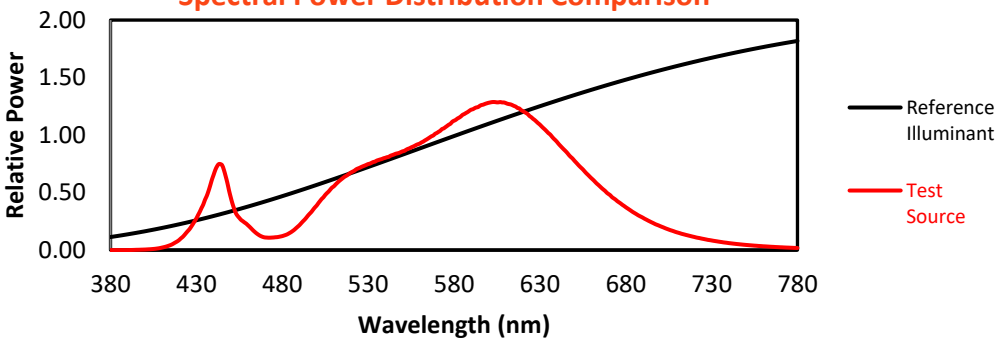
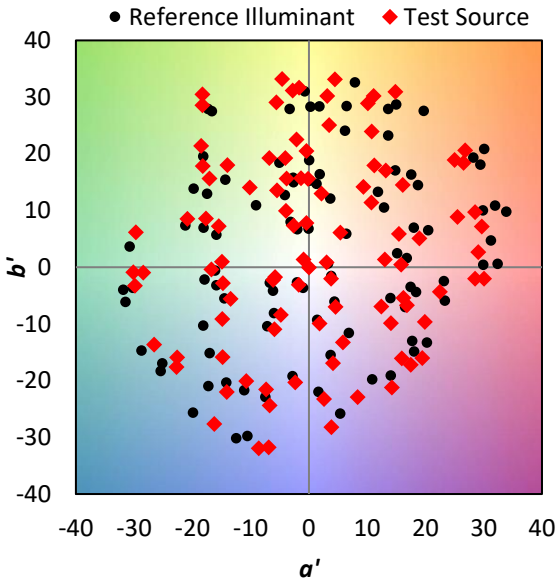
Summary

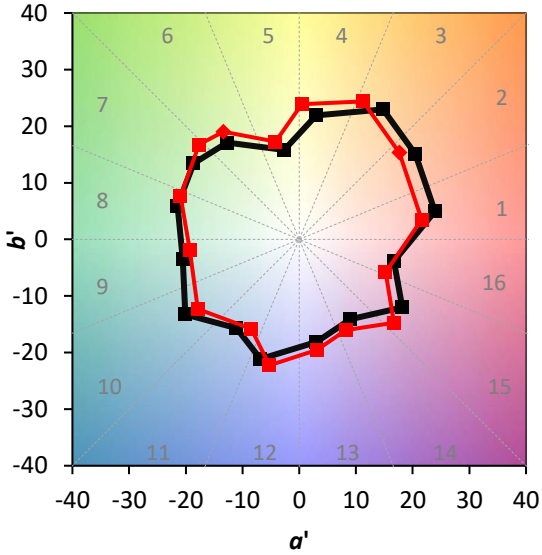
R_f = 81.5
R_g = 99.2
CIE R_a = 81.0
R_9 = 7.1

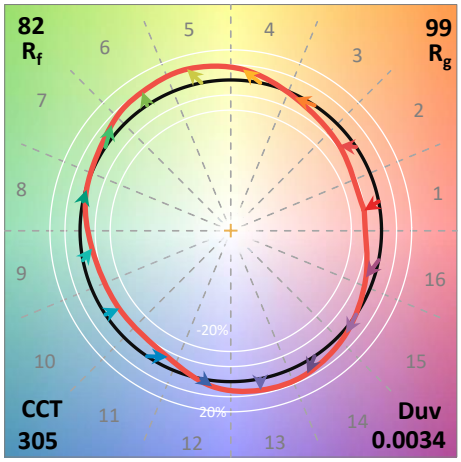
Spectral Power Distribution Comparison

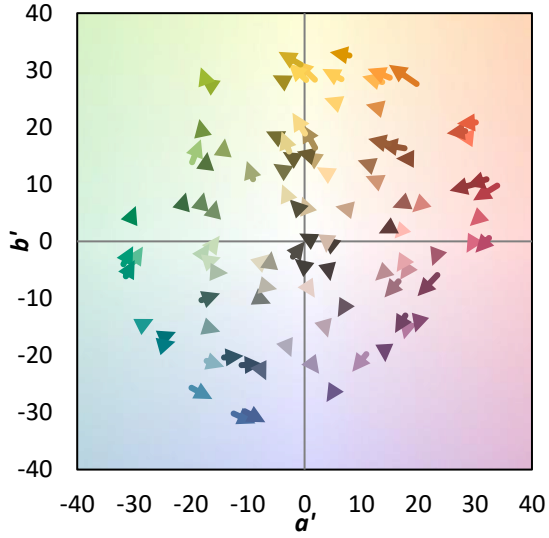


Color Vector Graphics









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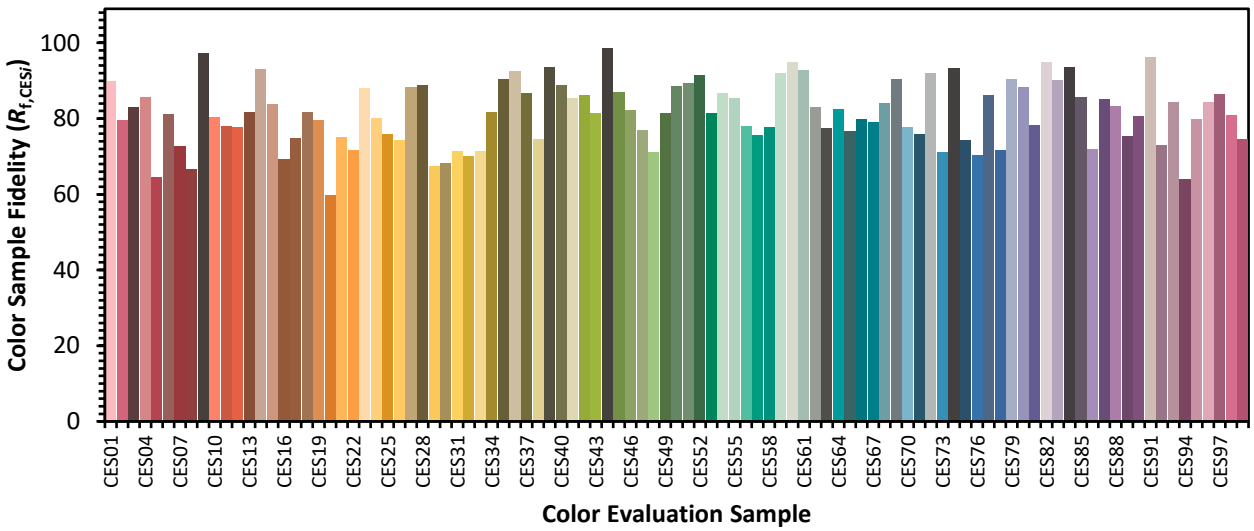
Individual Sample Fidelity Index ($R_{f,i}$)

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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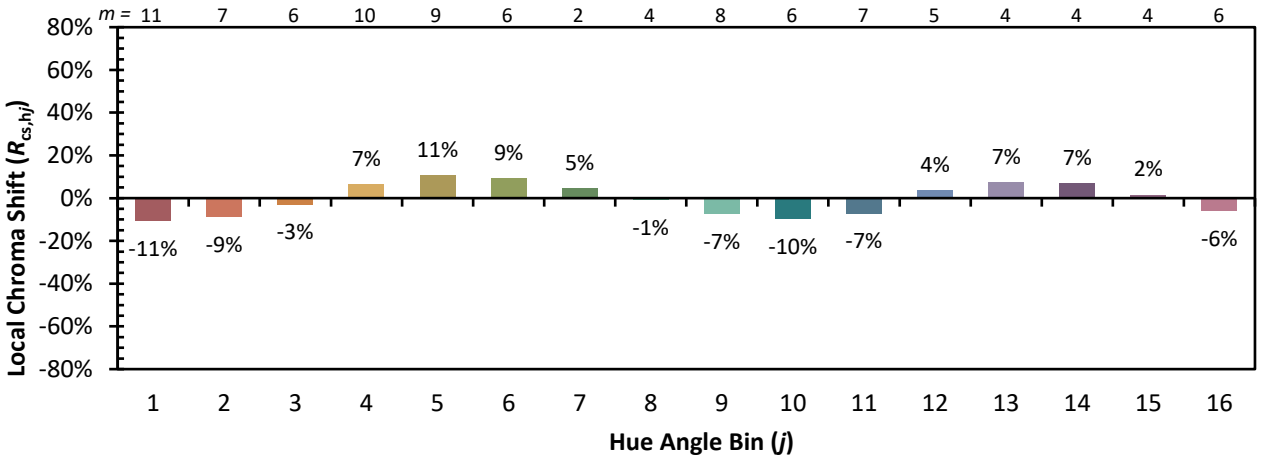
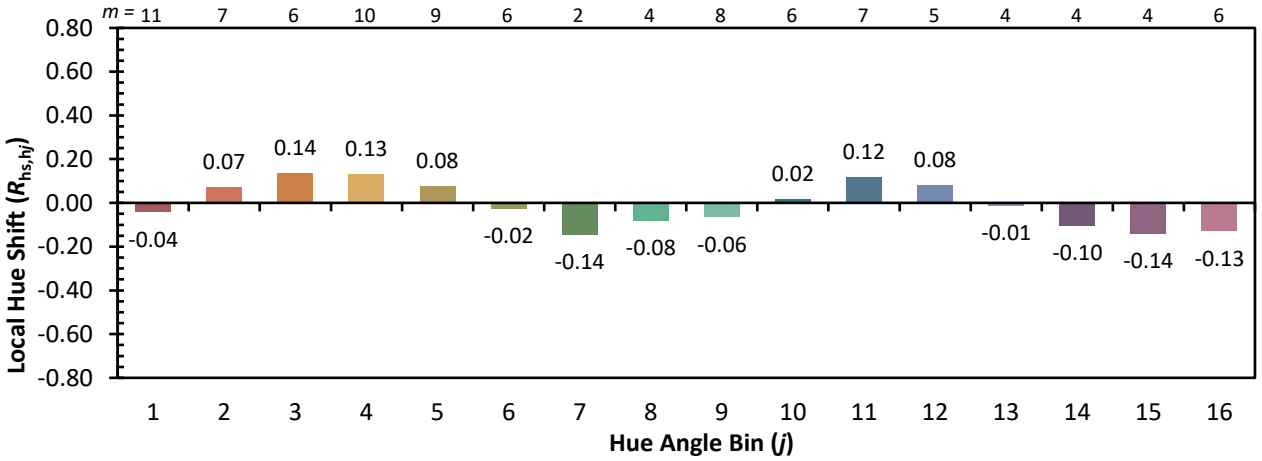
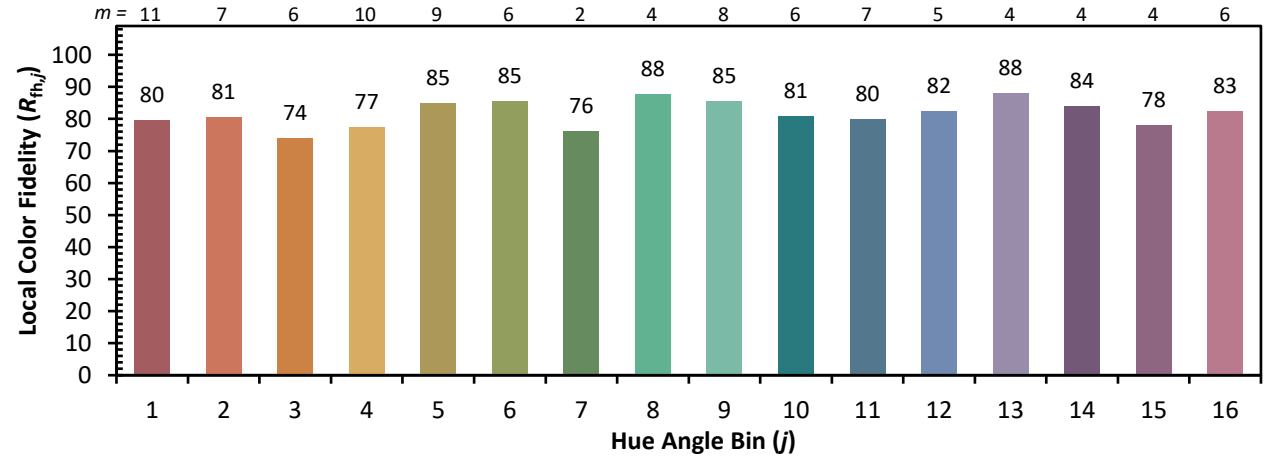
Color Rendition by Hue-Angle Bin







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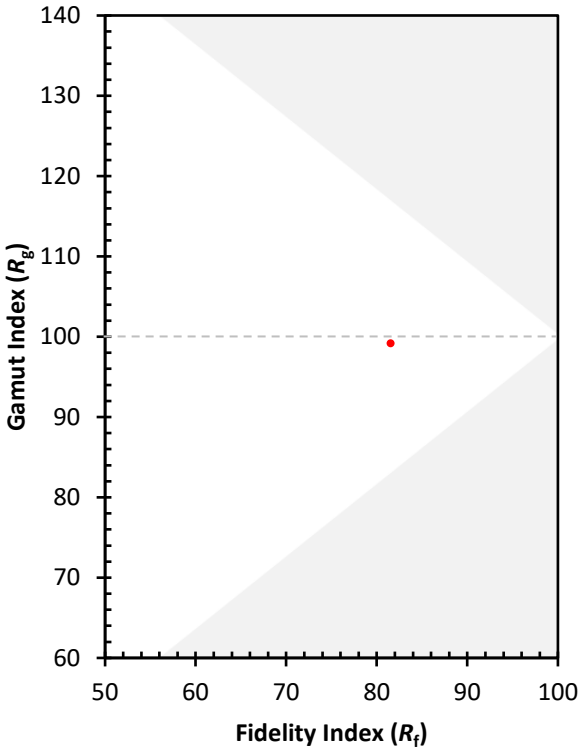
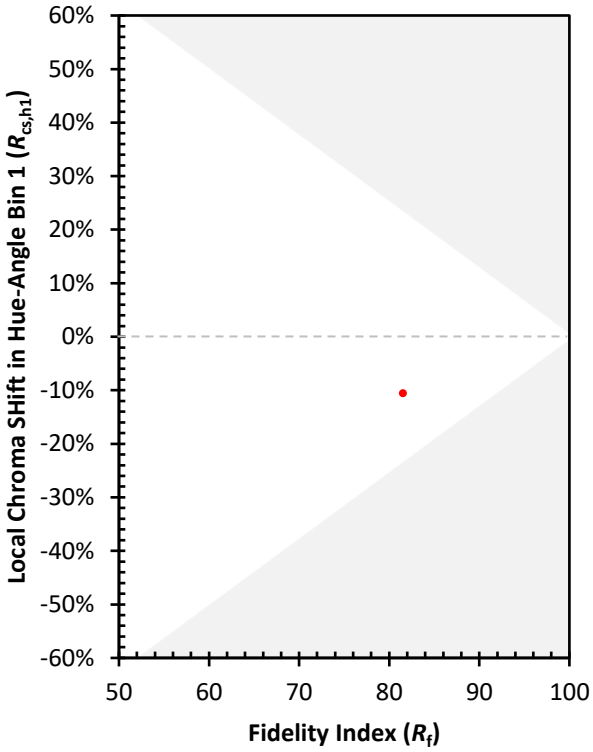
Measure Comparisons





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