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: P638488

Luminaire Tested: GWS-SA4E-830-U-T2-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:	P638488
	TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-20)
Test Lab:	COOPER LIGHTING SOLUTIONS
Issue Date:	1/10/2023
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	McGRAW-EDISON
Catalog Number:	GWS-SA4E-830-U-T2-W-GRSBK
Description:	GALLEON WALL SLIM LUMINAIRE. (4) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II 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:	14440.4 lumens
Efficiency:	N/A
Efficacy:	71.3 lumens/watt
Luminous Opening:	Rectangular (W 1' x L: 1' x H: 0')
IES Classification:	Type II - Short
BUG Rating:	B2 - U0 - G1

Input Watts (W):	202.6
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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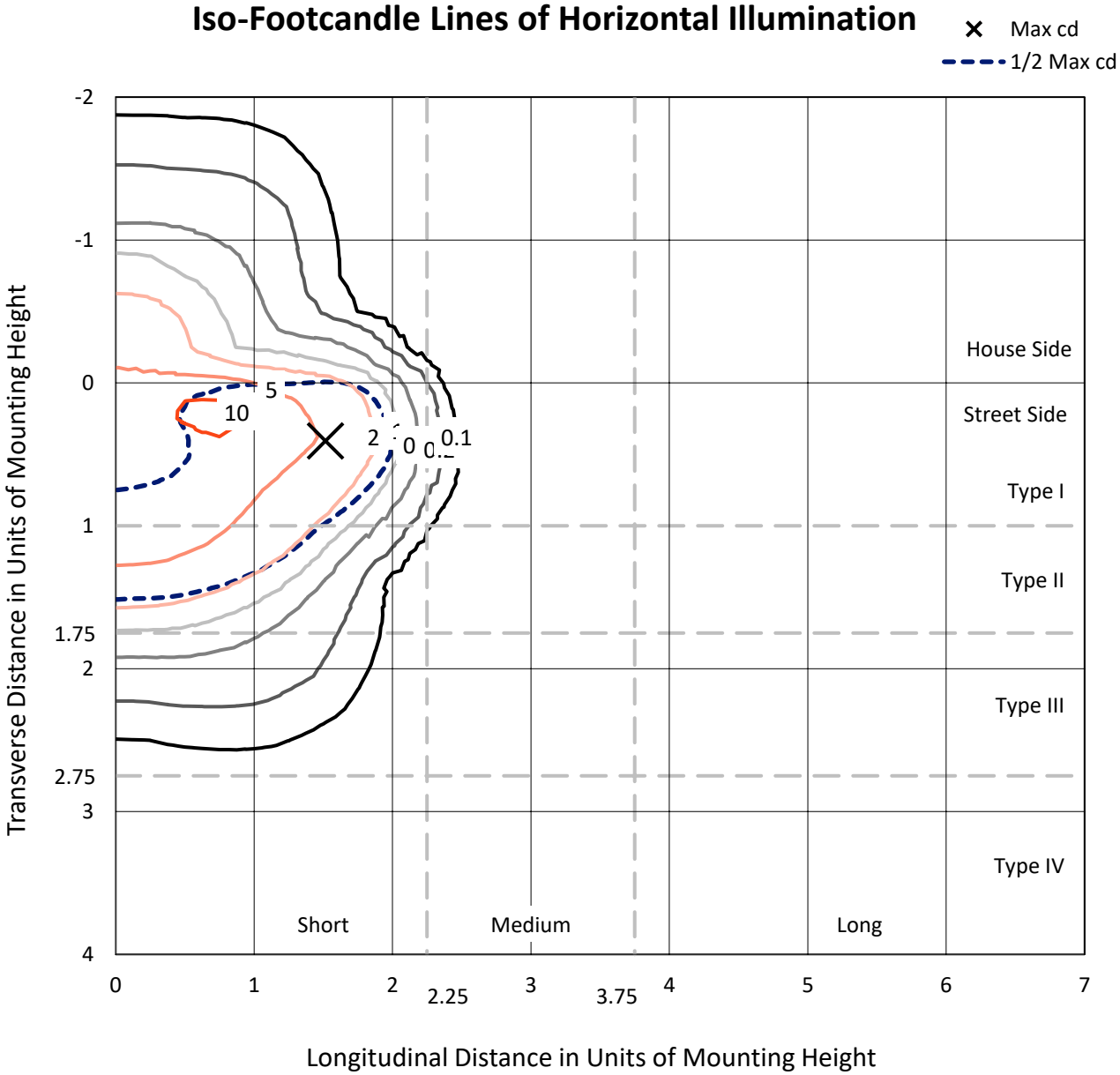
Scaled Data Report

REPORT NUMBER: P638488
CATALOG NUMBER: GWS-SA4E-830-U-T2-W-GRSBK

Iso-Footcandle Lines of Horizontal Illumination



Based on 20 foot mounting height. Maximum calculated value = 11.3 fc
Type II - Short - N/A

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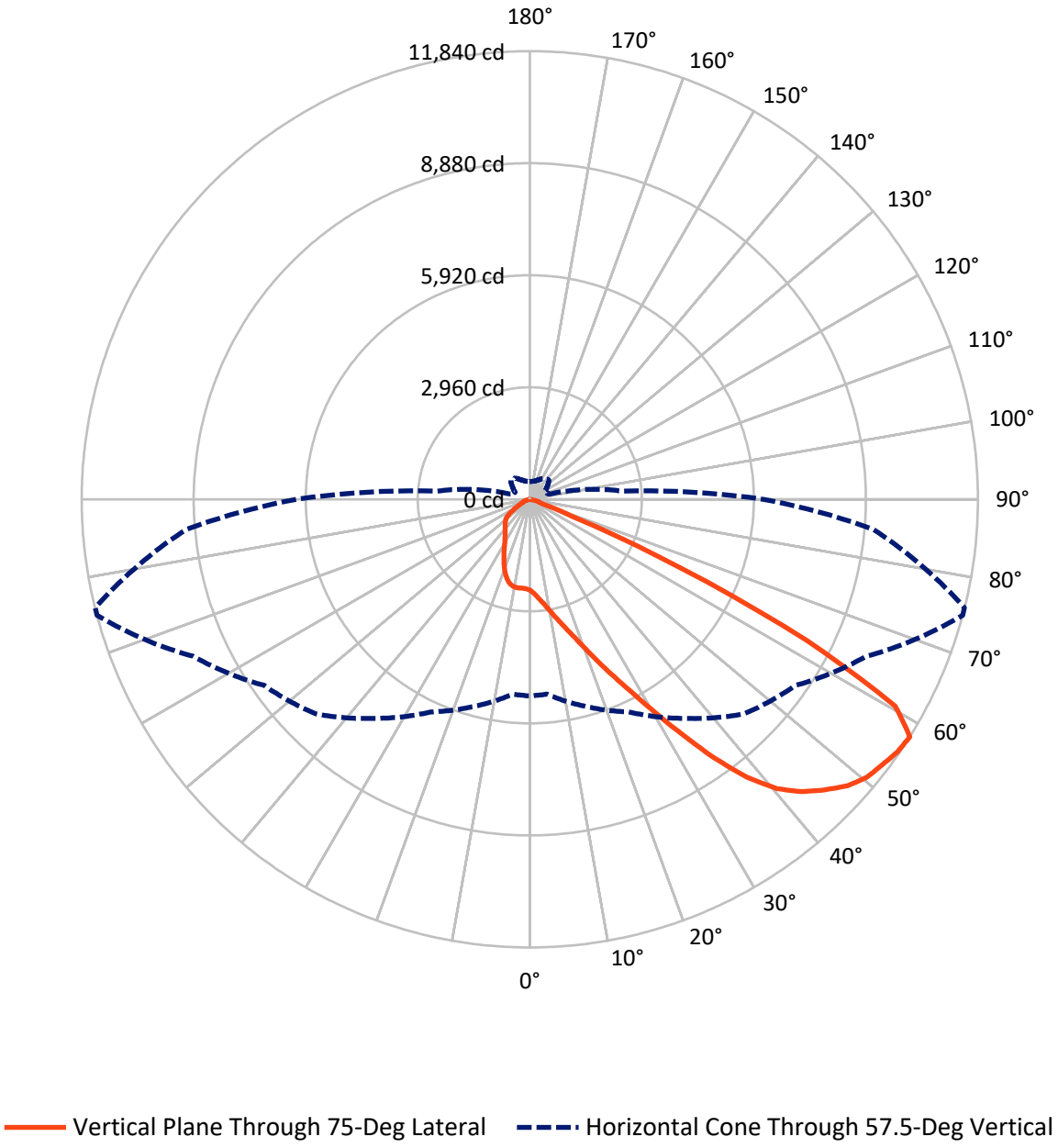
Luminous Intensity Polar Plot



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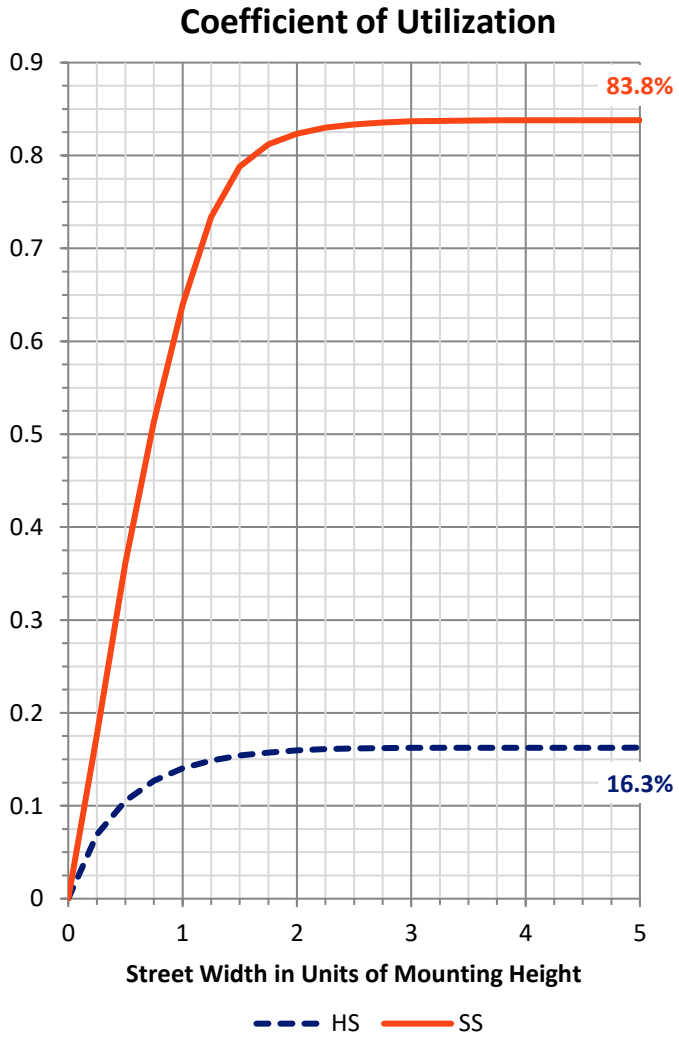
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2358.8	0.0	2358.8
	% Fixture	16.3	0.0	16.3
Street Side	Lumens	12081.6	0.0	12081.6
	% Fixture	83.7	0.0	83.7
Total	Lumens	14440.4	0.0	14440.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	245.1	1.7
10°-20°	796.1	5.5
20°-30°	1457.9	10.1
30°-40°	2418.8	16.8
40°-50°	3694.1	25.6
50°-60°	4150.9	28.7
60°-70°	1531.0	10.6
70°-80°	146.3	1.0
80°-90°	0.1	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°	14440.4	100.0
0°-180°	14440.4	100.0



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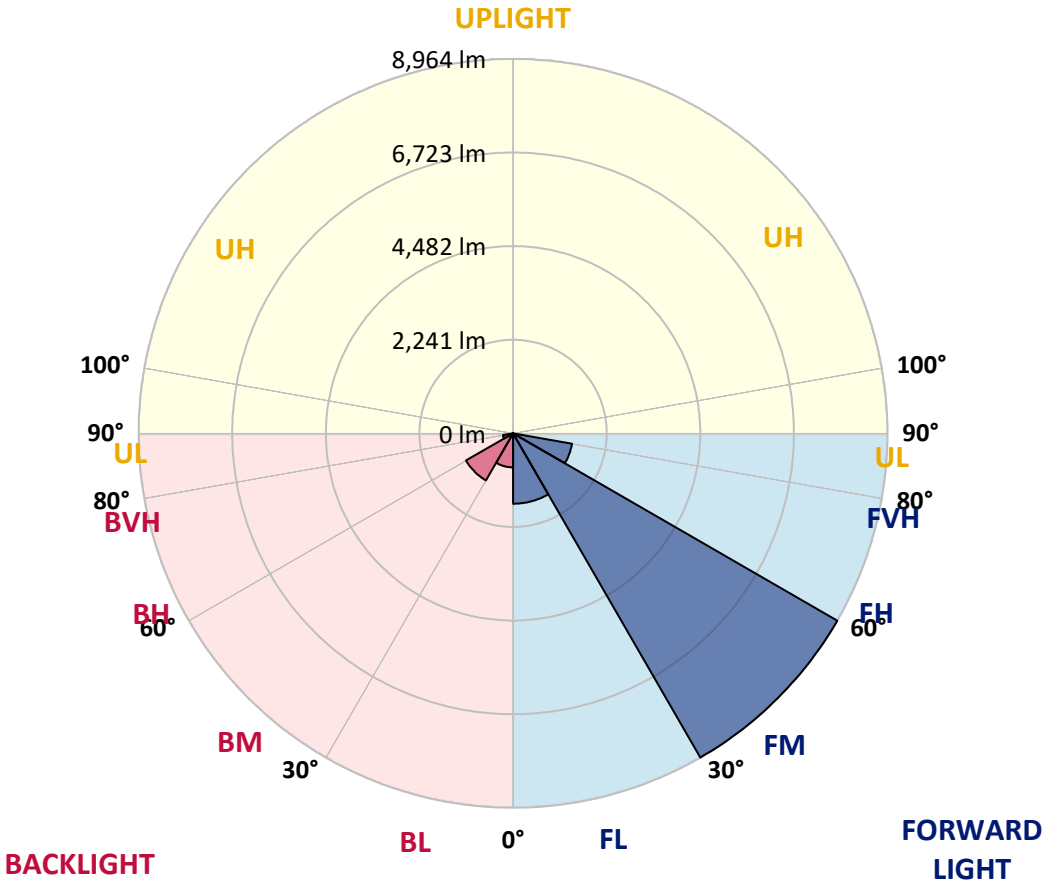
LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	1685.2	11.7			
FM	(30°-60°)	8963.9	62.1			
FH	(60°-80°)	1432.4	9.9			G1/1800
FVH	(80°-90°)	0.1	0.0			G0/10
BL	(0°-30°)	813.9	5.6	B2/1000		
BM	(30°-60°)	1299.9	9.0	B2/2500		
BH	(60°-80°)	245.0	1.7	B1/500		G1/500
BVH	(80°-90°)	0.1	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G1
Type II Short



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REPORT NUMBER: P638488
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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	76°	85°
0°	2408.5	2408.5	2408.5	2408.5	2408.5	2408.5	2408.5	2408.5	*2408.5*	2408.5	2408.5
2.5°	2690.8	2718.7	2710.0	2692.5	2682.1	2645.5	2622.8	2556.6	*2509.5*	2504.3	2460.7
5°	3030.6	3025.4	3018.4	2997.5	2980.1	2922.6	2854.6	2743.1	*2643.7*	2631.5	2539.2
7.5°	3217.1	3220.6	3224.1	3220.6	3208.4	3164.8	3089.9	2959.2	*2807.5*	2797.1	2650.7
10°	3293.8	3300.7	3318.2	3351.3	3380.9	3377.4	3333.8	3199.7	*3013.2*	2995.8	2798.8
12.5°	3330.4	3339.1	3367.0	3429.7	3509.9	3572.6	3579.6	3459.3	*3253.7*	3225.8	2974.8
15°	3380.9	3389.6	3424.5	3506.4	3623.1	3746.9	3827.0	3750.4	*3520.3*	3490.7	3168.3
17.5°	3403.6	3415.8	3466.3	3574.3	3726.0	3915.9	4097.2	4090.2	*3835.8*	3813.1	3393.1
20°	3447.1	3455.8	3501.2	3617.9	3800.9	4074.5	4379.5	4489.3	*4220.9*	4187.8	3665.0
22.5°	3584.8	3588.3	3609.2	3682.4	3853.2	4189.5	4667.0	4954.6	*4675.8*	4632.2	3969.9
25°	3809.6	3807.9	3816.6	3828.8	3954.3	4306.3	4944.1	5479.2	*5196.8*	5149.8	4315.0
27.5°	4095.4	4095.4	4116.3	4081.5	4132.0	4450.9	5217.7	6082.1	*5803.3*	5737.1	4693.2
30°	4431.8	4430.0	4478.8	4423.1	4438.7	4679.2	5512.3	6739.2	*6535.3*	6453.3	5128.9
32.5°	4888.4	4877.9	4933.7	4857.0	4804.7	5024.3	5871.3	7425.8	*7411.8*	7286.4	5676.1
35°	5465.2	5447.8	5465.2	5390.3	5296.2	5507.0	6341.8	8110.7	*8384.3*	8251.8	6327.9
37.5°	6038.6	6094.3	6113.5	5984.5	5907.9	6118.7	6908.2	8724.1	*9313.2*	9175.5	7005.8
40°	6714.8	6697.3	6763.5	6618.9	6570.1	6803.6	7462.4	9180.7	*10048.6*	9917.9	7608.8
42.5°	7213.2	7244.5	7326.5	7246.3	7207.9	7427.5	7927.7	9447.4	*10559.2*	10430.3	8039.2
45°	7810.9	7833.6	7865.0	7798.7	7758.6	7974.7	8264.0	9564.1	*10947.9*	10808.4	8328.5
47.5°	8457.5	8474.9	8474.9	8339.0	8210.0	8298.9	8488.9	9630.3	*11305.1*	11170.9	8542.9
50°	8921.1	8929.8	9006.4	8910.6	8630.0	8492.3	8591.7	9694.8	*11542.1*	11416.6	8612.6
52.5°	8509.8	8499.3	8752.0	8950.7	9025.6	8752.0	8769.4	9788.9	*11657.1*	11549.1	8668.4
55°	7166.1	7148.7	7504.2	7986.9	8647.4	8997.7	8983.8	9844.7	*11784.4*	11718.1	8870.5
57.5°	*5195.1*	*5165.5*	*5660.4*	*6197.2*	*7063.3*	*8013.1*	*8570.8*	*9813.3*	*11840.1*	*11834.9*	*9105.8*
60°	3123.0	3098.6	3565.6	4130.3	4799.5	5754.5	6679.9	8790.3	*11094.2*	11104.7	8494.1
62.5°	1922.2	1944.9	2366.6	2654.2	2903.4	3190.9	3726.0	5913.1	*8218.7*	8286.7	5968.9
65°	1293.1	1310.5	1700.9	2063.4	2063.4	1687.0	1448.2	2826.7	*4384.7*	4269.7	2823.2
67.5°	867.9	887.1	1195.5	1619.0	1680.0	1176.3	587.3	843.5	*1221.7*	1185.1	698.8
70°	510.6	531.5	796.4	1110.1	1223.4	819.1	392.1	357.3	*346.8*	336.3	271.9
72.5°	228.3	237.0	406.1	564.6	515.8	345.1	277.1	285.8	*270.1*	264.9	221.3
75°	69.7	73.2	104.6	122.0	123.7	123.7	167.3	224.8	*212.6*	214.4	170.8
77.5°	17.4	17.4	27.9	26.1	13.9	12.2	31.4	50.5	*52.3*	47.1	34.9
80°	0.0	0.0	0.0	0.0	0.0	1.7	1.7	1.7	*1.7*	1.7	1.7
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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Scaled Data Report

REPORT NUMBER: P638488
CATALOG NUMBER: GWS-SA4E-830-U-T2-W-GRSBK

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2408.5	2408.5	2408.5	2408.5	2408.5	2408.5	2408.5	2408.5	2408.5	2408.5	2408.5
2.5°	2441.6	2396.3	2366.6	2324.8	2295.2	2263.8	2235.9	2213.3	2201.1	2197.6	2199.3
5°	2497.3	2425.9	2356.2	2276.0	2220.2	2168.0	2126.1	2093.0	2077.3	2072.1	2072.1
7.5°	2582.7	2483.4	2359.7	2234.2	2140.1	2058.2	2009.4	1972.8	1958.8	1955.3	1944.9
10°	2694.3	2558.3	2354.4	2159.2	2026.8	1941.4	1906.6	1896.1	1901.3	1903.1	1901.3
12.5°	2828.5	2636.8	2321.3	2049.5	1906.6	1854.3	1857.8	1885.6	1917.0	1932.7	1936.2
15°	2971.4	2708.2	2246.4	1918.7	1803.7	1802.0	1852.5	1917.0	1978.0	2004.1	2011.1
17.5°	3131.7	2765.7	2131.4	1779.3	1714.8	1765.4	1856.0	1955.3	2037.3	2080.8	2089.5
20°	3307.7	2812.8	1985.0	1648.6	1636.4	1727.0	1852.5	1974.5	2075.6	2124.4	2133.1
22.5°	3490.7	2845.9	1815.9	1528.4	1565.0	1683.5	1819.4	1937.9	2033.8	2089.5	2096.5
25°	3699.8	2849.4	1643.4	1427.3	1498.8	1624.2	1739.2	1836.8	1917.0	1965.8	1971.0
27.5°	3882.8	2807.5	1490.0	1345.4	1437.8	1551.0	1627.7	1681.7	1737.5	1765.4	1767.1
30°	4093.7	2734.3	1345.4	1279.2	1375.0	1460.4	1498.8	1510.9	1516.2	1521.4	1514.4
32.5°	4344.6	2645.5	1237.3	1214.7	1303.6	1361.1	1371.5	1347.1	1317.5	1275.7	1265.2
35°	4653.1	2565.3	1148.5	1151.9	1225.1	1260.0	1251.3	1199.0	1141.5	1091.0	1082.2
37.5°	4987.7	2497.3	1080.5	1091.0	1139.7	1164.1	1138.0	1080.5	1054.4	1010.8	1012.5
40°	5284.0	2441.6	1019.5	1030.0	1052.6	1075.3	1033.4	995.1	1043.9	1040.4	1043.9
42.5°	5494.8	2394.5	967.2	962.0	977.7	993.4	962.0	942.8	1024.7	1002.1	1014.3
45°	5618.6	2350.9	923.6	892.3	916.7	944.6	923.6	899.3	927.1	822.6	813.9
47.5°	5702.2	2326.5	885.3	824.3	867.9	916.7	873.1	813.9	773.8	683.2	676.2
50°	5710.9	2314.4	840.0	754.6	810.4	862.7	812.1	730.2	672.7	632.6	627.4
52.5°	5756.2	2338.7	777.3	665.7	726.7	810.4	775.5	693.6	615.2	580.3	573.4
55°	5958.4	2441.6	672.7	543.7	632.6	770.3	745.9	618.7	543.7	522.8	517.6
57.5°	*6167.5*	*2462.5*	*529.8*	*430.5*	*550.7*	*712.8*	*681.4*	*569.9*	*496.7*	*472.3*	*467.1*
60°	5639.5	2028.5	397.3	355.5	486.2	658.8	630.9	540.2	454.9	425.2	420.0
62.5°	3705.1	1096.2	315.4	301.5	409.5	557.7	575.1	488.0	406.1	374.7	372.9
65°	1707.9	508.9	242.2	238.8	320.7	444.4	494.9	427.0	343.3	315.4	315.4
67.5°	465.3	252.7	190.0	176.0	217.8	298.0	360.7	318.9	244.0	210.9	209.1
70°	231.8	203.9	170.8	151.6	156.8	184.7	212.6	177.8	123.7	101.1	99.3
72.5°	190.0	167.3	144.6	129.0	118.5	113.3	109.8	88.9	57.5	43.6	41.8
75°	141.2	120.2	102.8	83.7	71.5	66.2	59.3	43.6	24.4	13.9	12.2
77.5°	31.4	29.6	27.9	20.9	19.2	15.7	12.2	8.7	3.5	0.0	0.0
80°	1.7	1.7	1.7	1.7	1.7	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

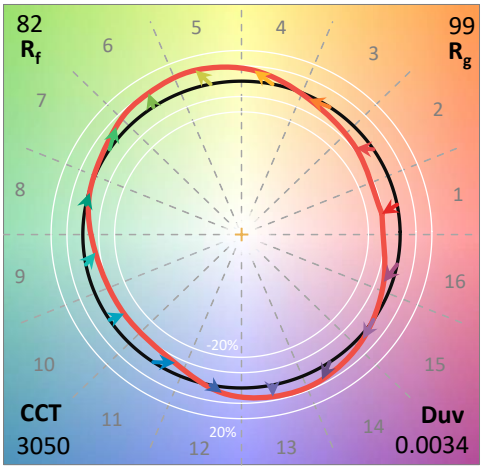
Test Information

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

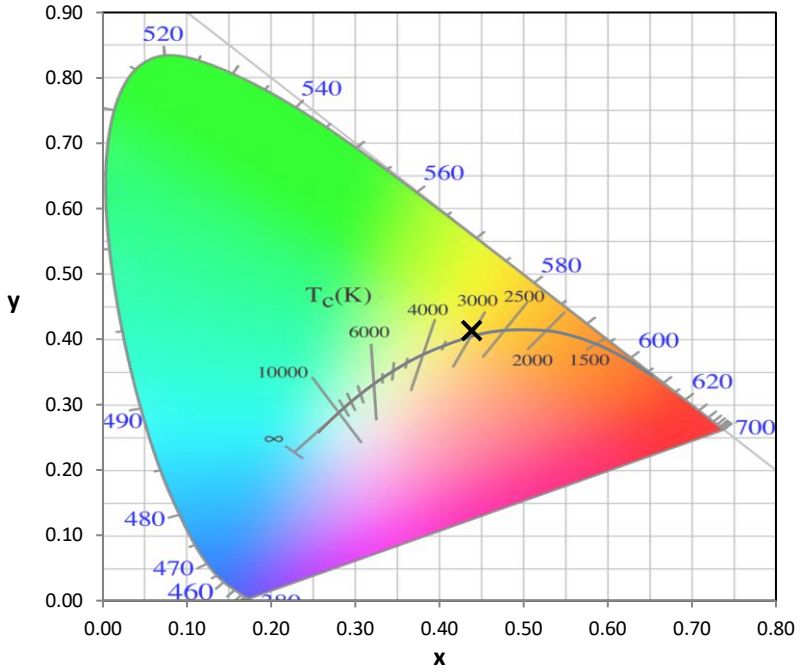
Stabilization Time:	20M
Operation Time:	1H 20M
Sphere Temperature (°C):	24.2

REPORT NUMBER: SP1-2408-195-9

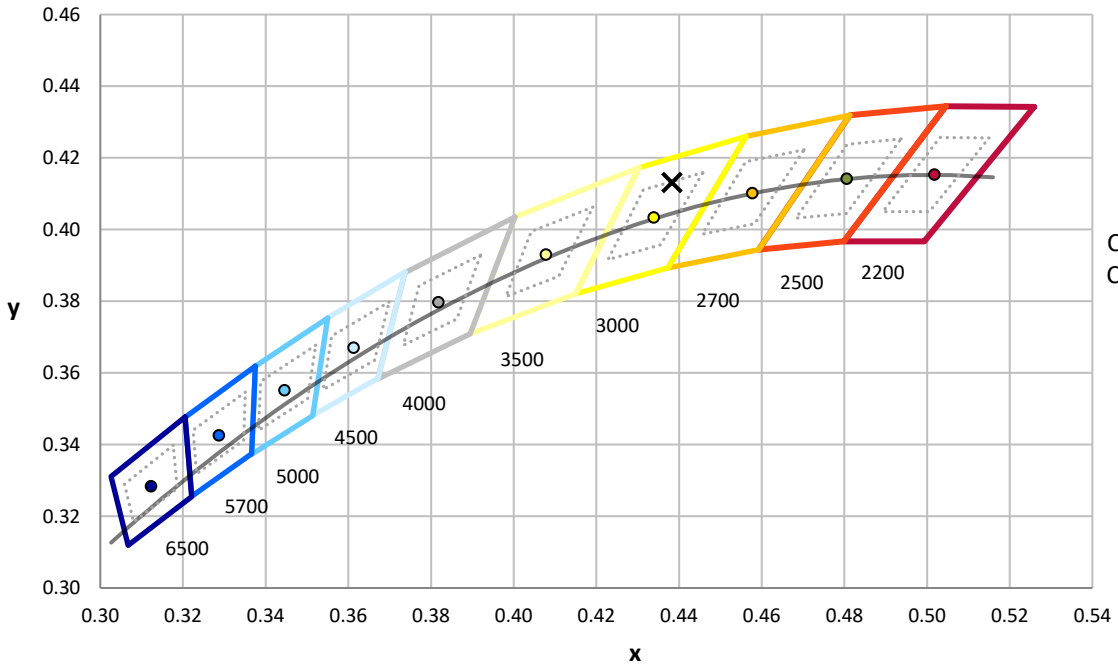
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

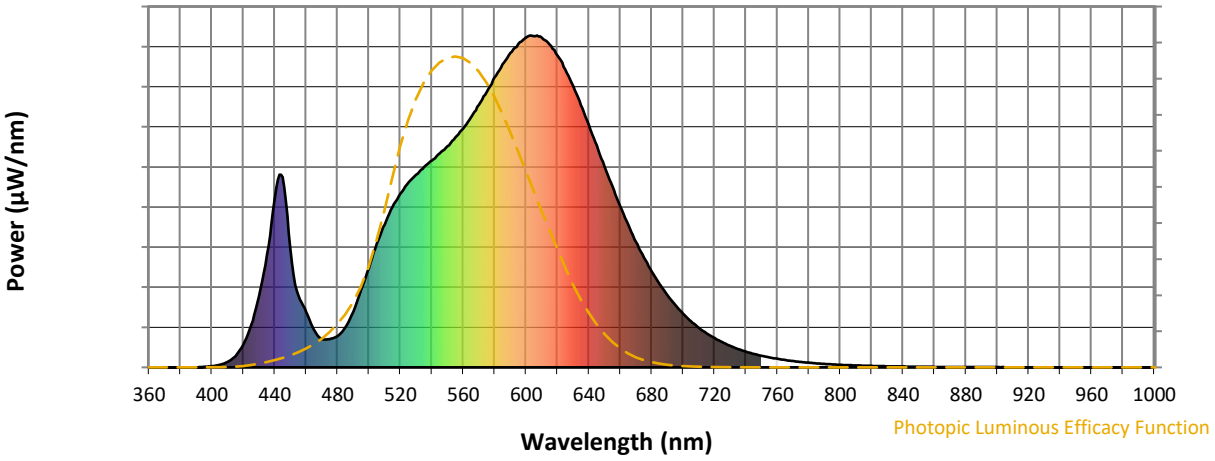


CCT = 3050K
CIE x = 0.4383
CIE y = 0.4131
Duv = 0.0034

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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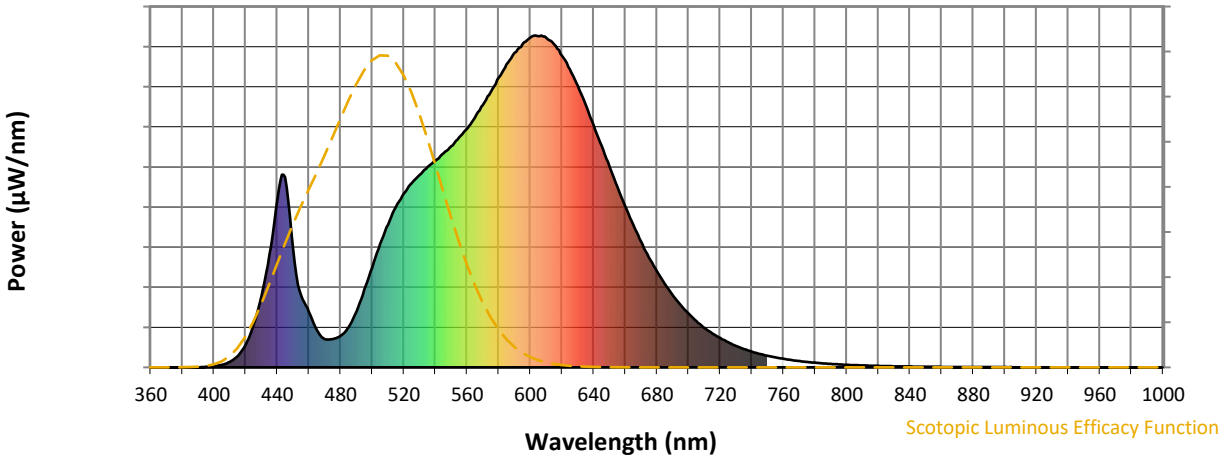
Scotopic Flux vs. Wavelength



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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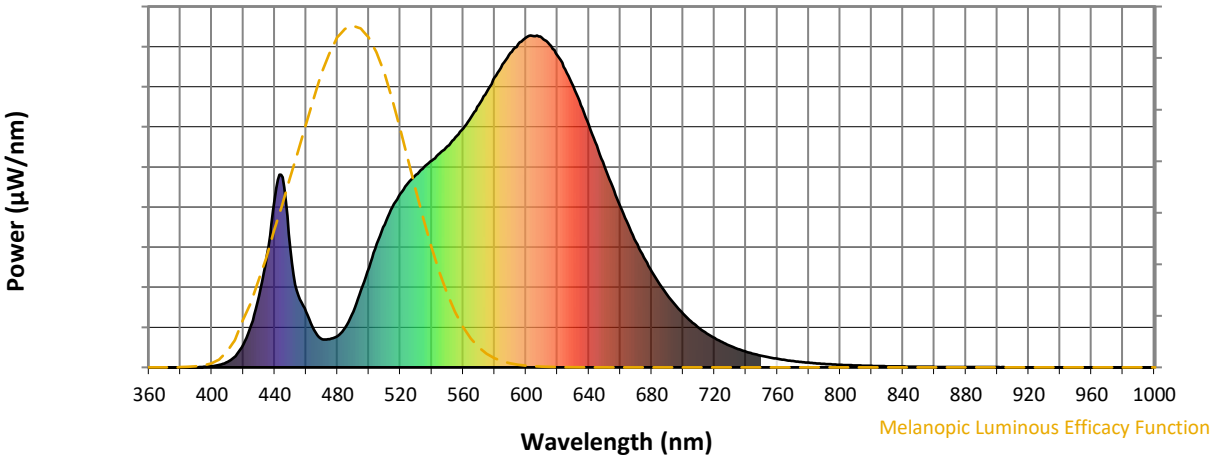
Melanopic Flux vs. Wavelength



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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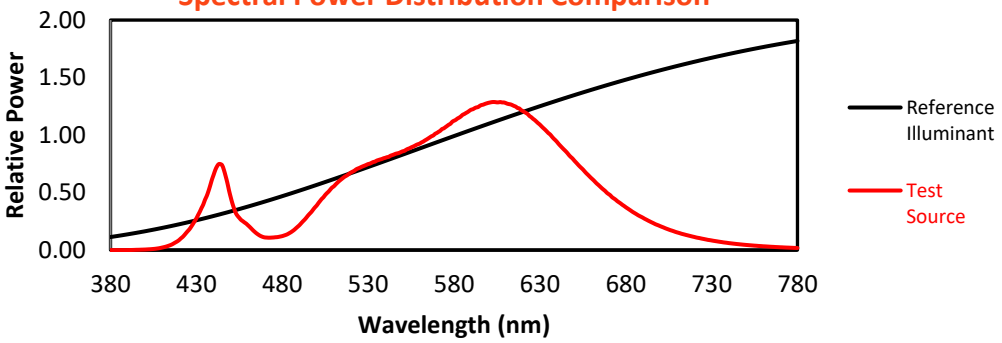
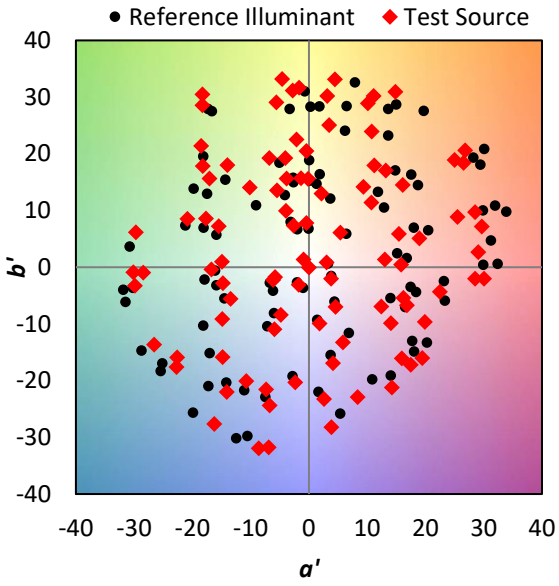
Summary

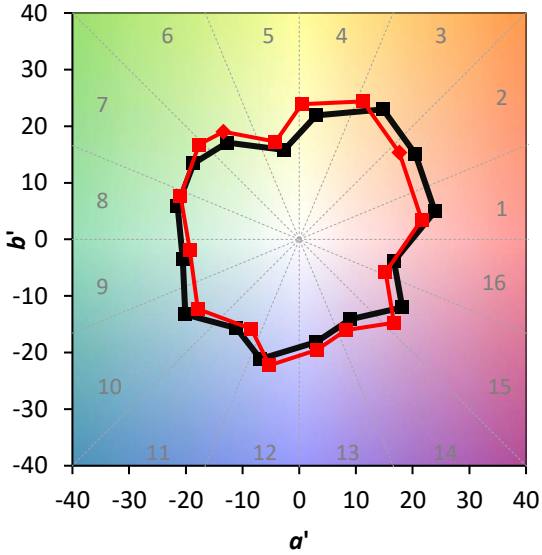
R_f = 81.5
R_g = 99.2
CIE R_a = 81.0
R_9 = 7.1

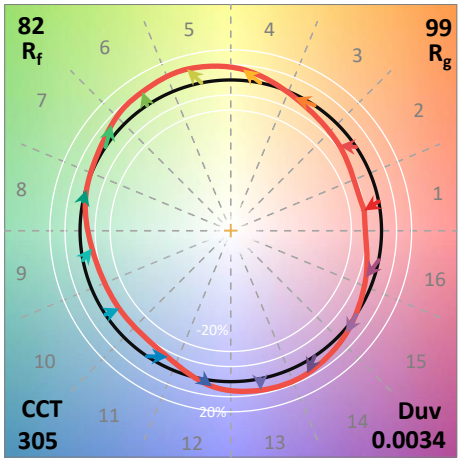
Spectral Power Distribution Comparison

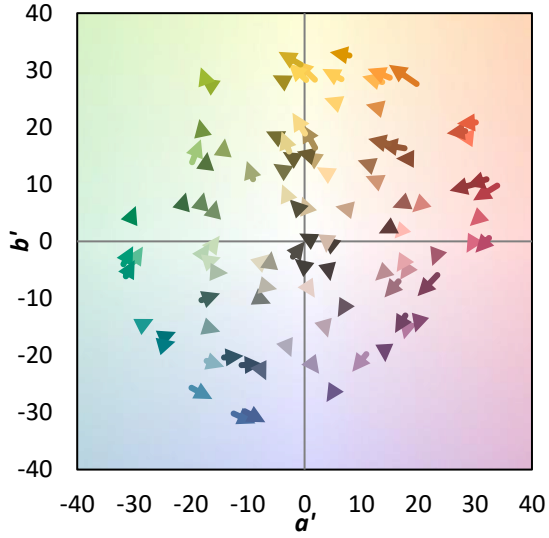


Color Vector Graphics









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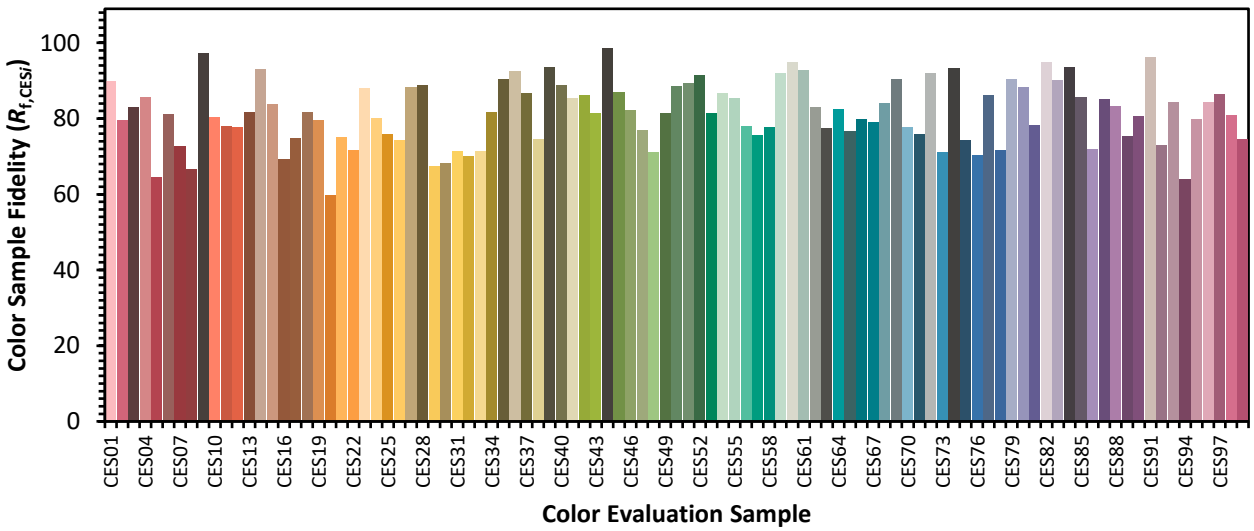
Individual Sample Fidelity Index ($R_{f,i}$)

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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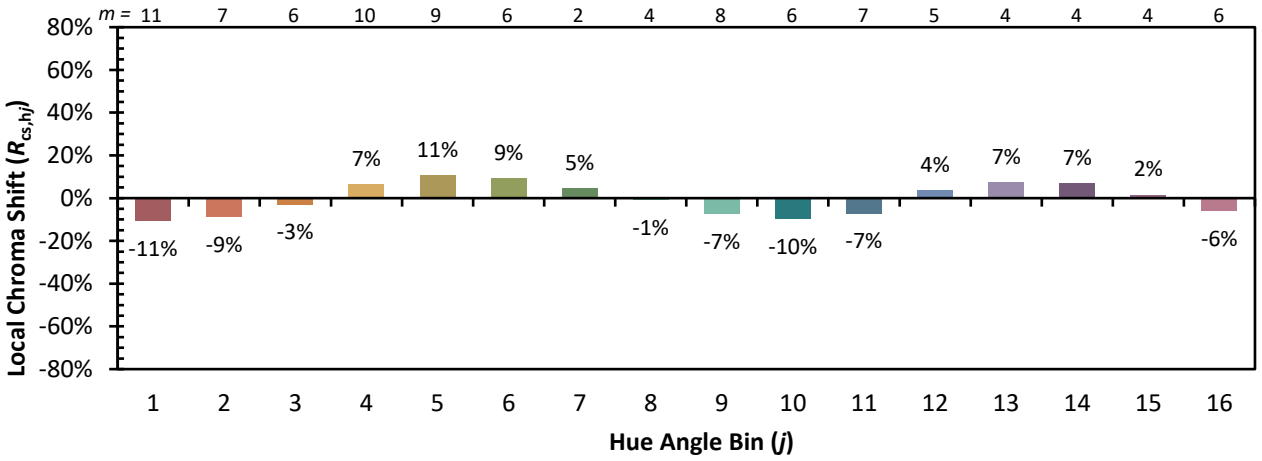
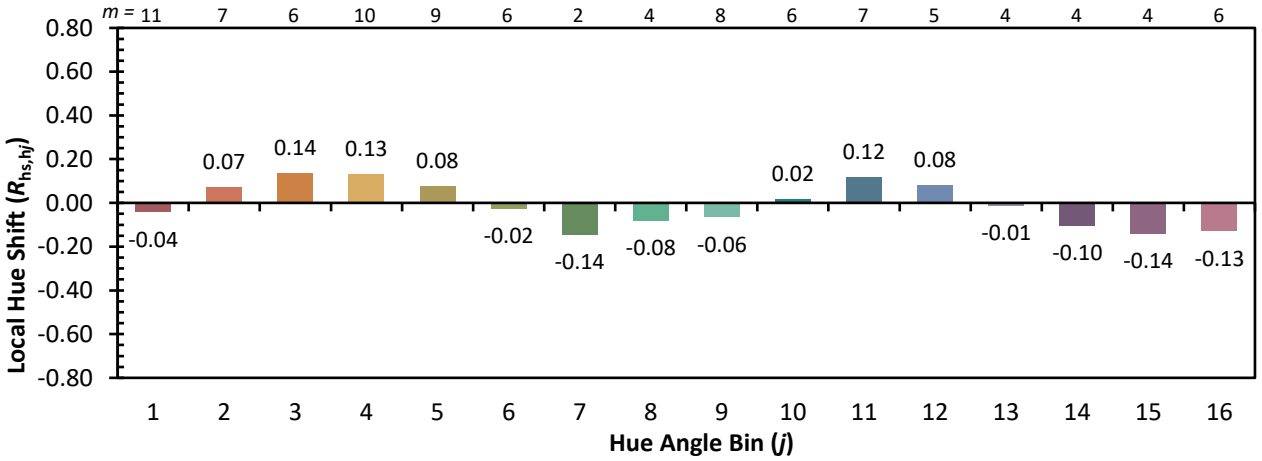
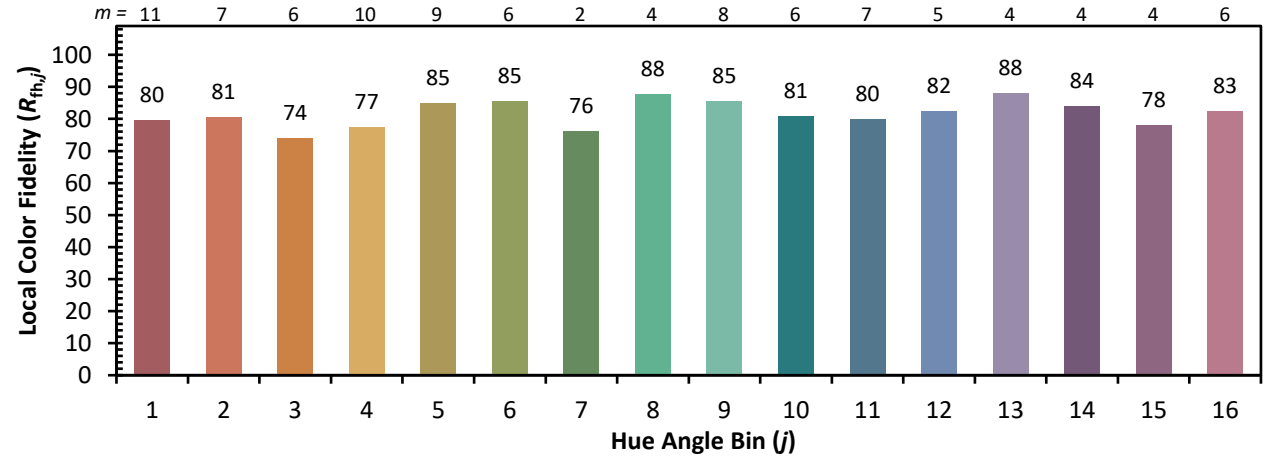
Color Rendition by Hue-Angle Bin







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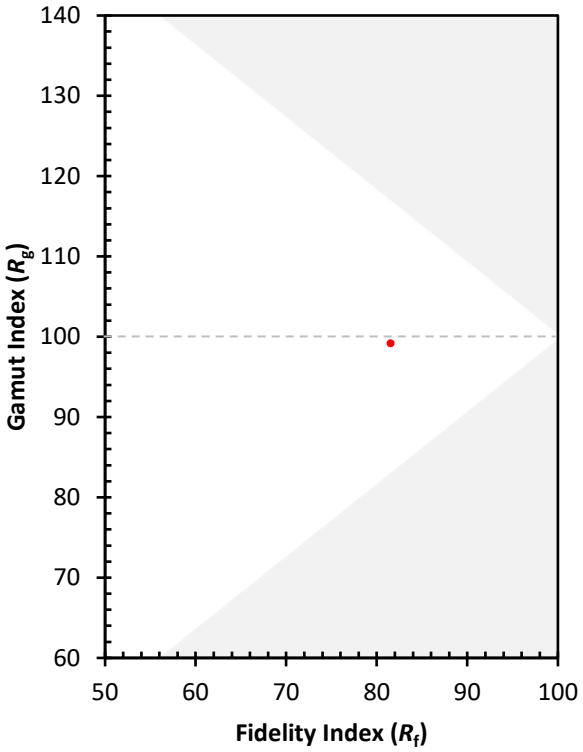
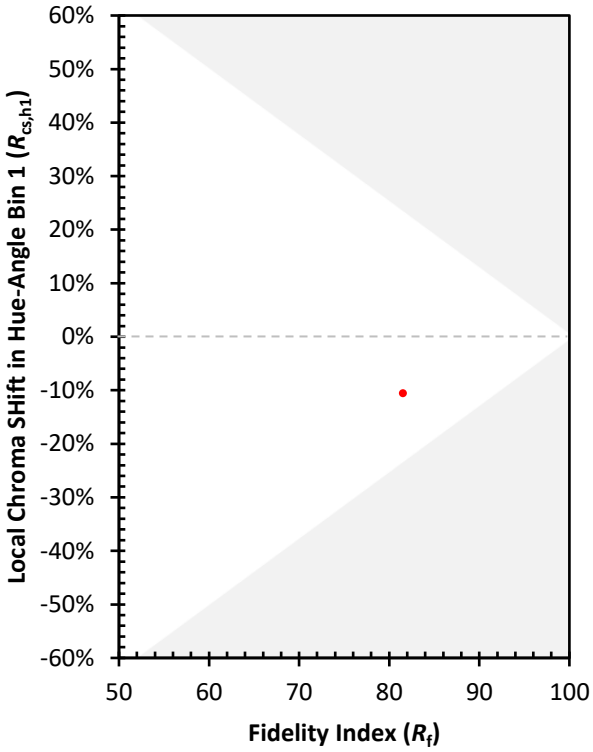
Measure Comparisons





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