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: P635988

Luminaire Tested: GWS-SA3E-830-U-AFL-W-GRSWH

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:	P635988
	TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-47)
Test Lab:	COOPER LIGHTING SOLUTIONS
Issue Date:	1/10/2023
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	McGRAW-EDISON
Catalog Number:	GWS-SA3E-830-U-AFL-W-GRSWH
Description:	GALLEON WALL SLIM LUMINAIRE. (3) LIGHTSQUARES WITH 16 LEDS EACH AND AUTOMOTIVE FRONTLINE OPTICS W/ FACTORY INSTALLED GLARE SHIELD, WH
Light Source:	(48) 3000K CCT, 80 CRI LEDS
Ballast/Driver:	-

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	15848.6 lumens
Efficiency:	N/A
Efficacy:	99.6 lumens/watt
Luminous Opening:	Rectangular (W 1.5' x L: 0.5' x H: 0')
IES Classification:	Type II - Short
BUG Rating:	B3 - U0 - G1

Input Watts (W):	159.2
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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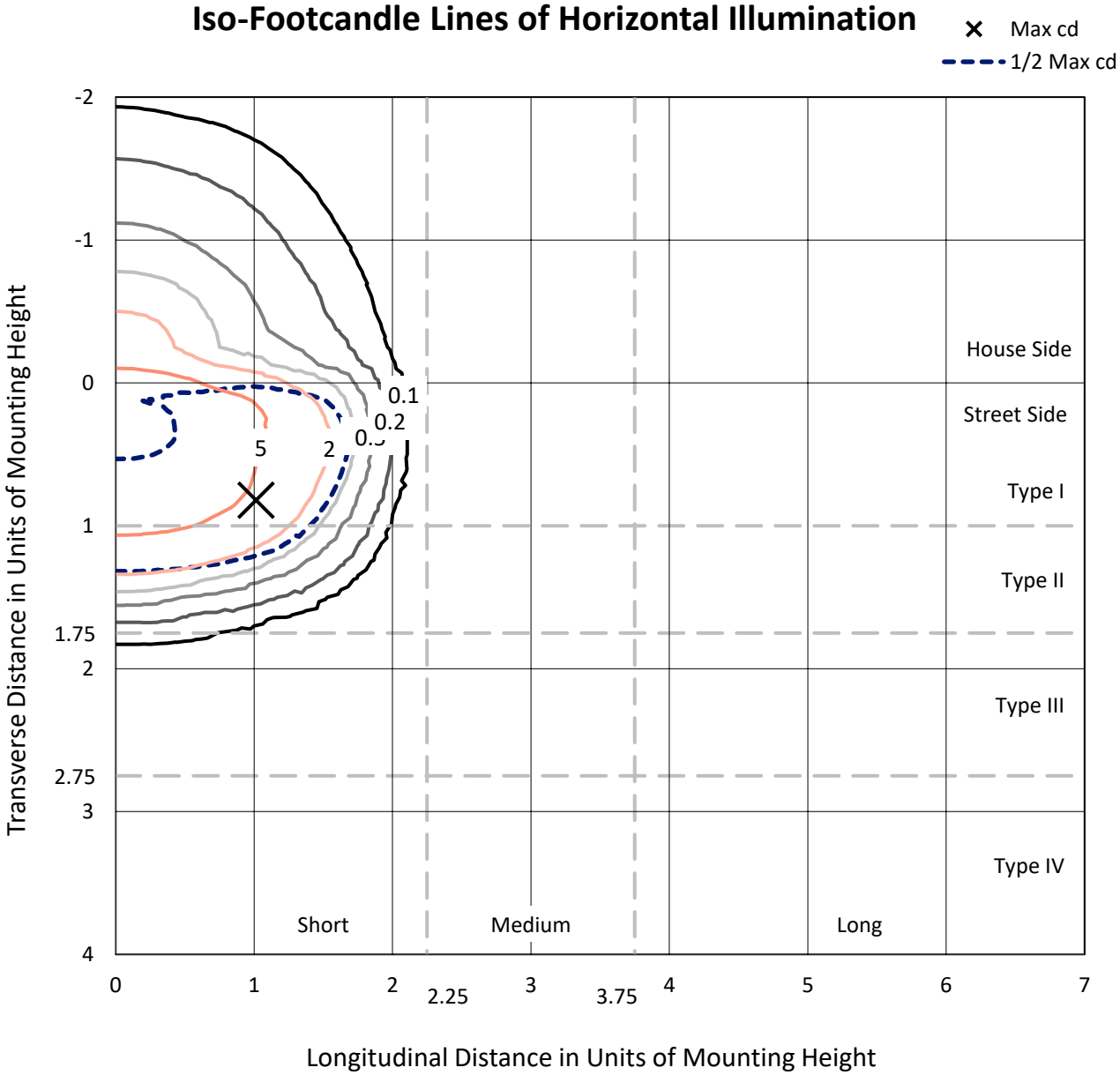
Scaled Data Report

REPORT NUMBER: P635988
CATALOG NUMBER: GWS-SA3E-830-U-AFL-W-GRSWH

Iso-Footcandle Lines of Horizontal Illumination



Based on 25 foot mounting height. Maximum calculated value = 9.2 fc
Type II - Short - N/A

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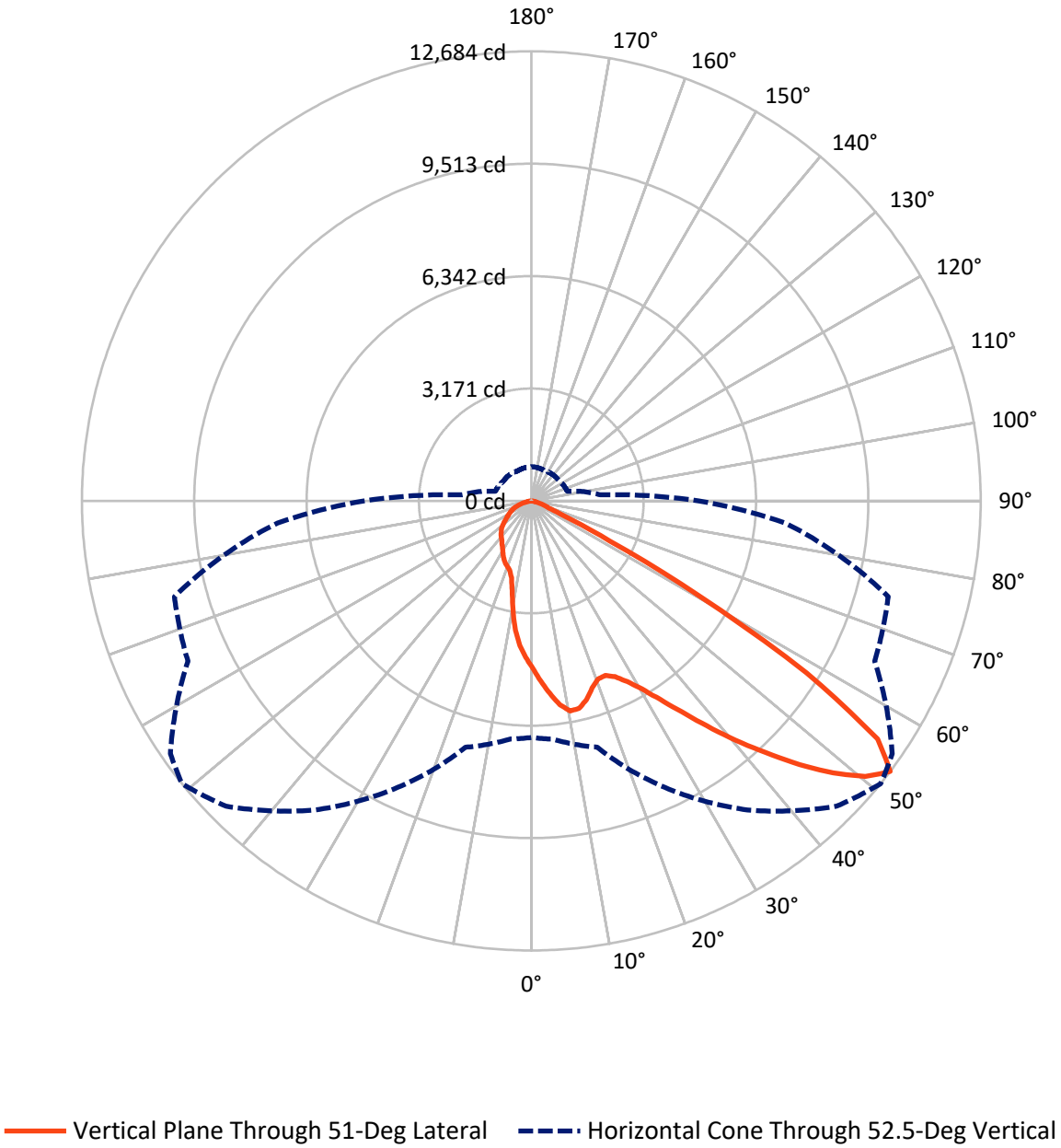
Luminous Intensity Polar Plot



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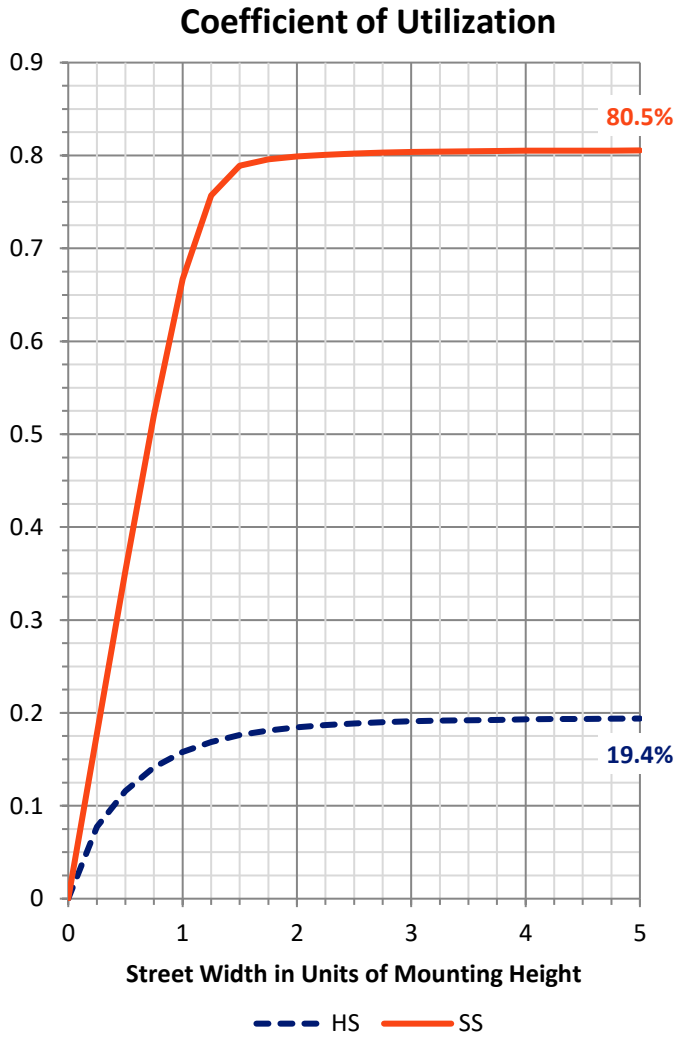
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3088.0	0.0	3088.0
	% Fixture	19.5	0.0	19.5
Street Side	Lumens	12760.6	0.0	12760.6
	% Fixture	80.5	0.0	80.5
Total	Lumens	15848.6	0.0	15848.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	440.3	2.8
10°-20°	1144.2	7.2
20°-30°	1860.3	11.7
30°-40°	2948.2	18.6
40°-50°	4446.6	28.1
50°-60°	3846.6	24.3
60°-70°	872.1	5.5
70°-80°	257.1	1.6
80°-90°	33.1	0.2
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°	15848.6	100.0
0°-180°	15848.6	100.0



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REPORT NUMBER: P635988
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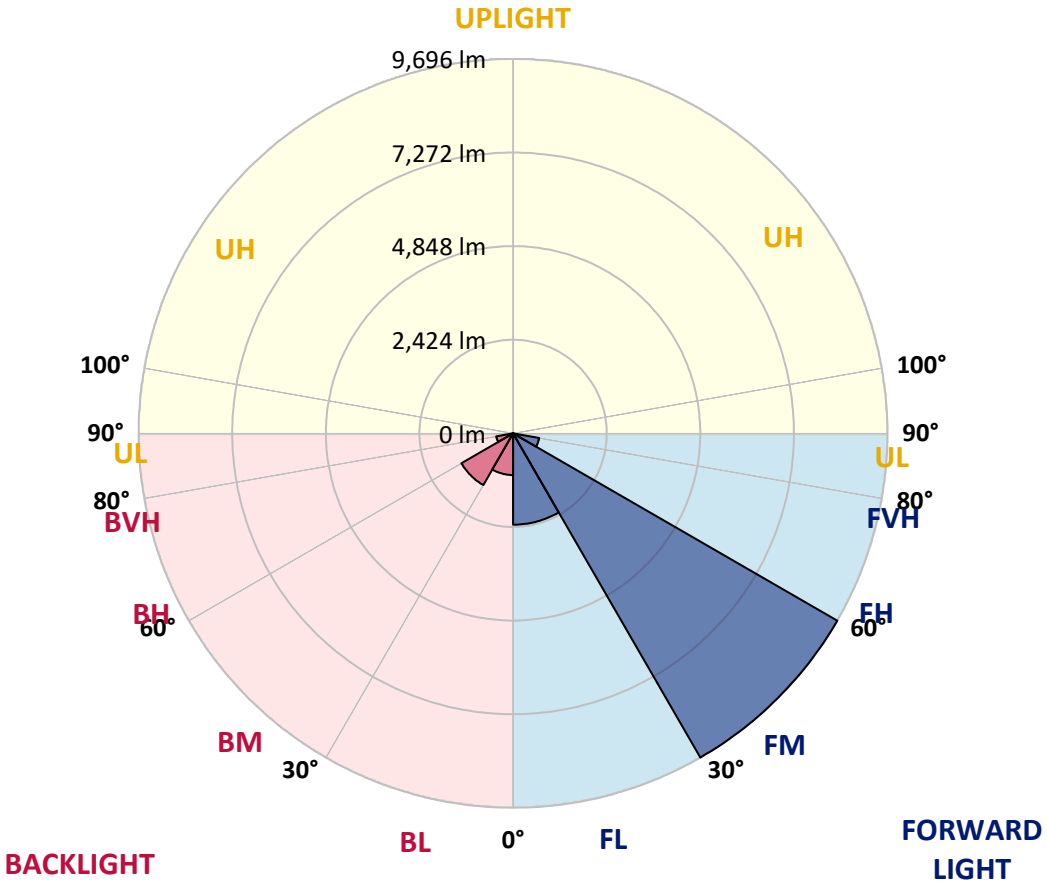
LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	2365.4	14.9			
FM	(30°-60°)	9696.4	61.2			
FH	(60°-80°)	686.3	4.3			G1/1800
FVH	(80°-90°)	12.5	0.1			G1/100
BL	(0°-30°)	1079.4	6.8	B3/2500		
BM	(30°-60°)	1545.0	9.7	B2/2500		
BH	(60°-80°)	442.9	2.8	B1/500		G1/500
BVH	(80°-90°)	20.6	0.1			G1/100
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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Scaled Data Report

REPORT NUMBER: P635988
CATALOG NUMBER: GWS-SA3E-830-U-AFL-W-GRSWH

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	51°	55°	65°	75°	85°
0°	4718.9	4718.9	4718.9	4718.9	4718.9	4718.9	*4718.9*	4718.9	4718.9	4718.9	4718.9
2.5°	5258.7	5288.7	5242.4	5224.9	5196.1	5146.0	*5088.4*	5072.1	4948.1	4866.7	4775.3
5°	5787.2	5803.5	5765.9	5728.3	5656.9	5568.0	*5456.6*	5432.8	5207.3	5020.7	4826.6
7.5°	5904.9	5898.6	5931.2	5952.5	5943.7	5908.7	*5809.7*	5763.4	5494.1	5198.6	4911.8
10°	5439.0	5404.0	5524.2	5667.0	5838.5	6036.4	*6025.1*	6021.4	5787.2	5437.8	5020.7
12.5°	4821.6	4804.1	4901.8	5080.9	5405.2	5843.5	*6007.6*	6135.3	6051.4	5665.7	5142.2
15°	4468.4	4462.2	4528.6	4657.6	4915.5	5469.1	*5819.7*	6072.7	6278.1	5909.9	5271.2
17.5°	4404.6	4408.3	4430.9	4504.8	4690.1	5146.0	*5551.7*	5904.9	6454.7	6177.9	5432.8
20°	4591.2	4616.2	4577.4	4588.7	4688.9	5029.5	*5368.9*	5735.8	6567.4	6447.2	5606.8
22.5°	5005.7	4996.9	4911.8	4861.7	4862.9	5100.9	*5348.9*	5656.9	6641.3	6708.9	5764.6
25°	5475.3	5465.3	5363.9	5252.4	5182.3	5295.0	*5492.9*	5740.9	6707.7	6948.1	5891.1
27.5°	6030.1	5998.8	5886.1	5743.4	5588.1	5636.9	*5770.9*	5967.5	6810.4	7183.6	5975.0
30°	6567.4	6603.7	6442.2	6273.1	6109.0	6079.0	*6156.6*	6334.5	7019.5	7459.1	6075.2
32.5°	7280.0	7267.5	7088.4	6868.0	6633.8	6611.2	*6672.6*	6835.4	7395.2	7839.8	6228.0
35°	8142.9	8145.4	7891.2	7593.1	7260.0	7199.9	*7302.6*	7460.4	7955.0	8355.8	6469.7
37.5°	9039.6	9035.8	8814.2	8476.0	8021.4	7936.2	*8054.0*	8171.7	8655.1	9058.4	6845.4
40°	9668.3	9693.3	9589.4	9411.5	8980.7	8772.8	*8876.8*	8958.2	9416.5	9884.9	7340.1
42.5°	10025.2	10062.8	10085.3	10191.8	9965.1	9743.4	*9705.8*	9748.4	10096.6	10652.6	7804.8
45°	10101.6	10151.7	10315.7	10710.2	10797.9	10735.3	*10612.6*	10509.9	10603.8	11197.4	8109.1
47.5°	9764.7	9852.4	10203.0	10893.1	11405.3	11601.9	*11465.4*	11308.9	10896.8	11337.7	8077.8
50°	8429.7	8532.4	9322.6	10519.9	11491.7	12208.1	*12220.6*	11988.9	10861.8	10933.2	7684.5
52.5°	*6673.9*	*6744.0*	*7196.1*	*8918.1*	*10643.9*	*12183.0*	*12684.0*	*12436.0*	*10692.7*	*10427.2*	*7192.3*
55°	3988.8	4101.5	4523.5	5883.6	8291.9	10797.9	*11864.9*	11985.2	10610.1	10002.7	6856.7
57.5°	1346.3	1401.4	1804.7	2598.7	4886.7	7906.2	*9167.3*	9655.7	9632.0	9353.9	6201.7
60°	641.2	653.7	735.1	985.6	1956.2	4131.6	*5426.5*	5990.1	6503.5	6554.9	3858.5
62.5°	488.4	495.9	537.3	591.1	786.5	1740.8	*2487.2*	2918.0	3117.1	2675.1	1405.2
65°	408.3	414.5	445.8	479.7	534.8	753.9	*954.3*	1100.8	991.9	772.7	670.0
67.5°	340.6	345.7	369.4	405.8	443.3	504.7	*529.8*	544.8	571.1	641.2	616.2
70°	266.8	271.8	296.8	328.1	364.4	379.5	*403.3*	418.3	470.9	561.1	558.6
72.5°	205.4	211.7	225.4	245.5	275.5	290.5	*316.8*	334.4	364.4	437.1	467.1
75°	150.3	154.0	166.6	172.8	176.6	172.8	*199.1*	219.2	259.2	286.8	294.3
77.5°	61.4	68.9	66.4	66.4	78.9	95.2	*109.0*	121.5	149.0	165.3	166.6
80°	25.0	27.6	32.6	36.3	43.8	56.4	*65.1*	70.1	82.7	92.7	100.2
82.5°	15.0	16.3	18.8	20.0	25.0	32.6	*37.6*	41.3	51.3	61.4	65.1
85°	7.5	7.5	8.8	10.0	12.5	15.0	*17.5*	20.0	26.3	32.6	36.3
87.5°	1.3	1.3	1.3	2.5	3.8	5.0	*6.3*	7.5	8.8	10.0	12.5
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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CATALOG NUMBER: GWS-SA3E-830-U-AFL-W-GRSWH

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	4718.9	4718.9	4718.9	4718.9	4718.9	4718.9	4718.9	4718.9	4718.9	4718.9	4718.9
2.5°	4721.4	4653.8	4574.9	4512.3	4439.6	4385.8	4309.4	4261.8	4216.7	4179.1	4151.6
5°	4726.4	4612.5	4448.4	4303.1	4152.8	4010.1	3863.6	3744.6	3638.1	3549.2	3541.7
7.5°	4755.2	4591.2	4334.4	4080.2	3787.2	3504.1	3221.1	2990.7	2815.3	2723.9	2705.1
10°	4804.1	4588.7	4218.0	3812.2	3312.5	2856.6	2521.0	2345.7	2244.2	2207.9	2195.4
12.5°	4855.4	4582.4	4068.9	3434.0	2740.2	2340.7	2156.6	2135.3	2154.1	2156.6	2155.3
15°	4918.0	4578.7	3881.1	2990.7	2321.9	2101.5	2114.0	2159.1	2202.9	2212.9	2212.9
17.5°	4994.4	4569.9	3625.6	2557.3	2060.1	2055.1	2121.5	2181.6	2223.0	2230.5	2230.5
20°	5074.6	4547.3	3311.3	2204.2	1953.7	2026.3	2097.7	2144.1	2172.9	2182.9	2184.1
22.5°	5129.7	4487.2	2949.3	1942.4	1887.3	1971.2	2022.6	2070.2	2070.2	2045.1	2037.6
25°	5141.0	4358.2	2557.3	1763.3	1808.4	1886.1	1938.7	1911.1	1859.8	1839.7	1838.5
27.5°	5099.6	4170.4	2170.4	1635.6	1713.2	1790.9	1782.1	1742.0	1719.5	1699.5	1707.0
30°	5049.5	3945.0	1834.7	1530.4	1603.0	1679.4	1649.4	1635.6	1619.3	1596.8	1601.8
32.5°	5015.7	3693.2	1576.7	1449.0	1529.1	1541.7	1563.0	1561.7	1546.7	1504.1	1501.6
35°	5025.7	3439.0	1403.9	1382.6	1467.8	1462.8	1502.8	1495.3	1391.4	1332.5	1328.8
37.5°	5105.9	3194.8	1302.5	1330.0	1370.1	1401.4	1436.5	1346.3	1310.0	1272.4	1274.9
40°	5258.7	2968.1	1247.4	1301.2	1311.2	1357.6	1276.2	1274.9	1258.6	1224.8	1223.6
42.5°	5431.5	2776.5	1209.8	1287.4	1273.7	1282.4	1196.0	1206.0	1204.8	1183.5	1177.2
45°	5536.7	2599.9	1179.7	1236.1	1239.8	1152.2	1125.9	1137.1	1143.4	1132.1	1130.9
47.5°	5427.8	2397.0	1148.4	1157.2	1189.7	1093.3	1060.8	1062.0	1073.3	1074.5	1069.5
50°	5122.2	2170.4	1110.8	1089.6	1068.3	1032.0	1001.9	995.6	1006.9	1018.2	1021.9
52.5°	*4727.7*	*1953.7*	*1048.2*	*1015.7*	*965.6*	*965.6*	*951.8*	*931.8*	*946.8*	*961.8*	*966.8*
55°	4438.4	1793.4	959.3	923.0	867.9	886.7	884.2	866.6	886.7	897.9	901.7
57.5°	3846.0	1441.5	844.1	832.8	786.5	809.0	814.0	791.5	781.5	784.0	787.7
60°	2283.1	930.5	761.4	760.2	718.9	745.2	760.2	737.6	707.6	711.3	716.4
62.5°	1024.4	711.3	657.5	652.5	651.2	685.0	701.3	680.0	637.5	641.2	646.2
65°	645.0	614.9	571.1	571.1	591.1	619.9	632.4	614.9	566.1	559.8	564.8
67.5°	598.6	572.3	527.2	518.5	528.5	552.3	553.5	519.7	490.9	485.9	485.9
70°	537.3	517.2	473.4	455.9	452.1	450.9	447.1	438.3	419.5	414.5	417.0
72.5°	444.6	430.8	403.3	384.5	374.5	373.2	358.2	350.7	334.4	331.9	330.6
75°	294.3	298.1	298.1	295.6	286.8	283.0	266.8	259.2	240.5	232.9	231.7
77.5°	174.1	177.8	182.8	184.1	182.8	182.8	167.8	159.1	140.3	130.2	127.7
80°	106.5	109.0	111.5	115.2	110.2	106.5	92.7	83.9	75.1	68.9	67.6
82.5°	68.9	71.4	72.6	75.1	72.6	67.6	56.4	51.3	45.1	40.1	38.8
85°	38.8	40.1	42.6	42.6	38.8	35.1	28.8	25.0	21.3	18.8	18.8
87.5°	13.8	13.8	13.8	15.0	12.5	11.3	7.5	5.0	3.8	3.8	3.8
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

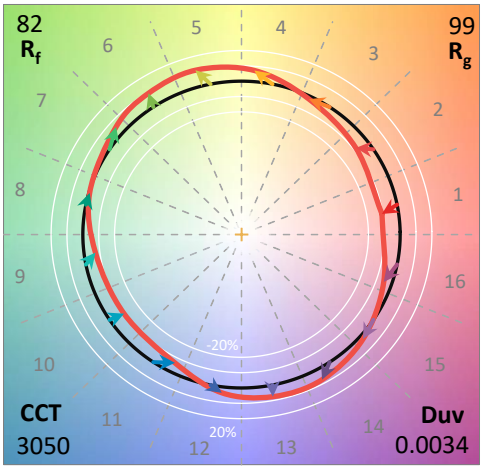
Test Information

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

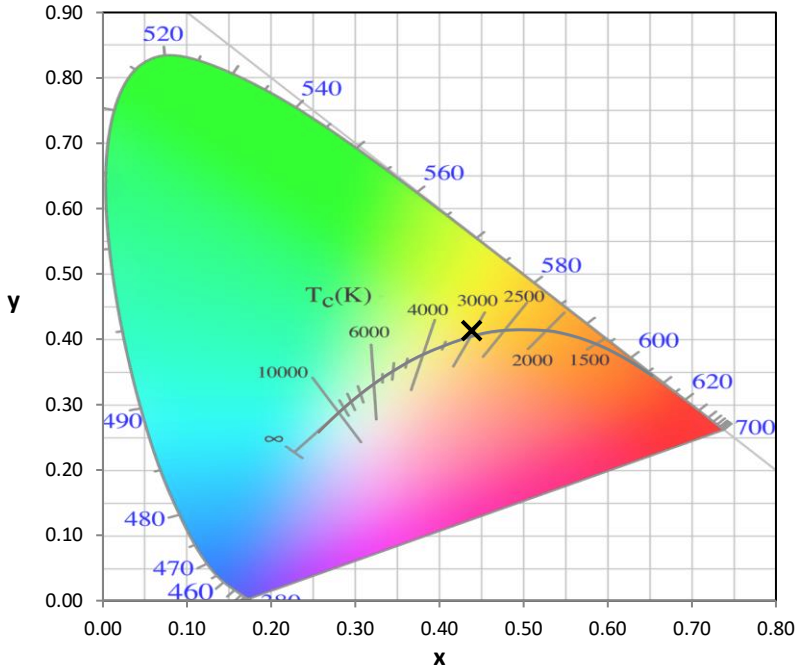
Stabilization Time:	20M
Operation Time:	1H 20M
Sphere Temperature (°C):	24.2

REPORT NUMBER: SP1-2408-195-9

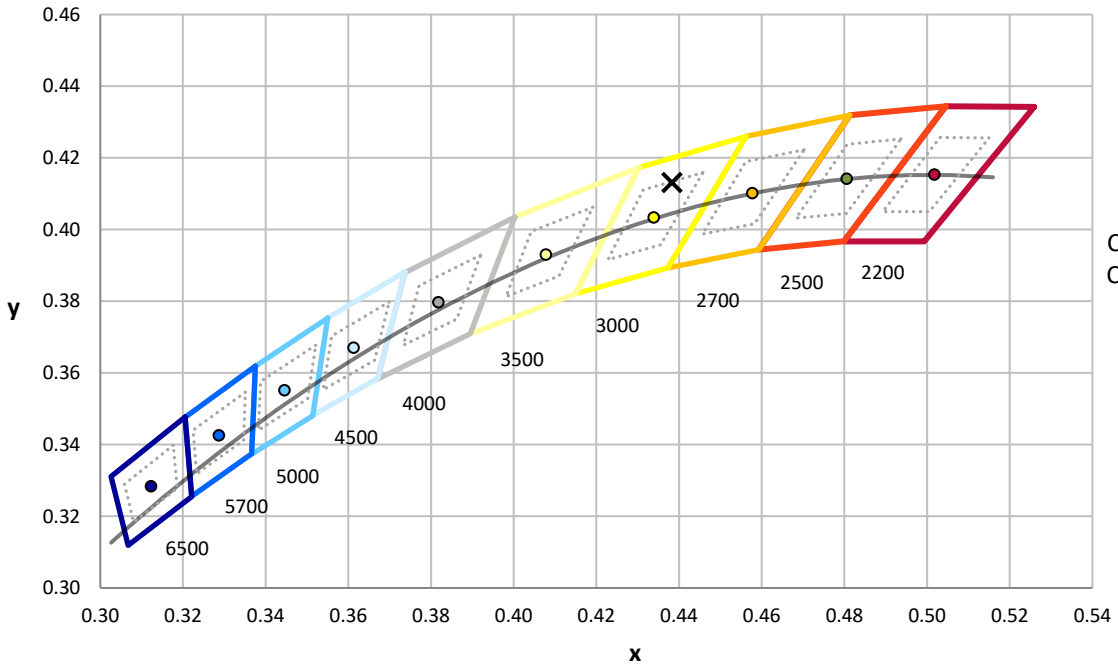
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

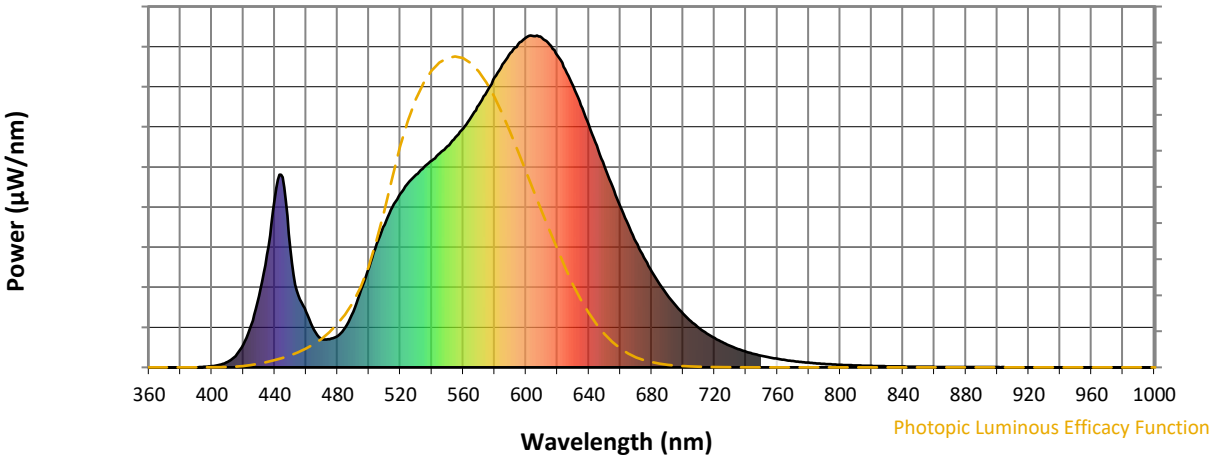


CCT = 3050K
CIE x = 0.4383
CIE y = 0.4131
Duv = 0.0034

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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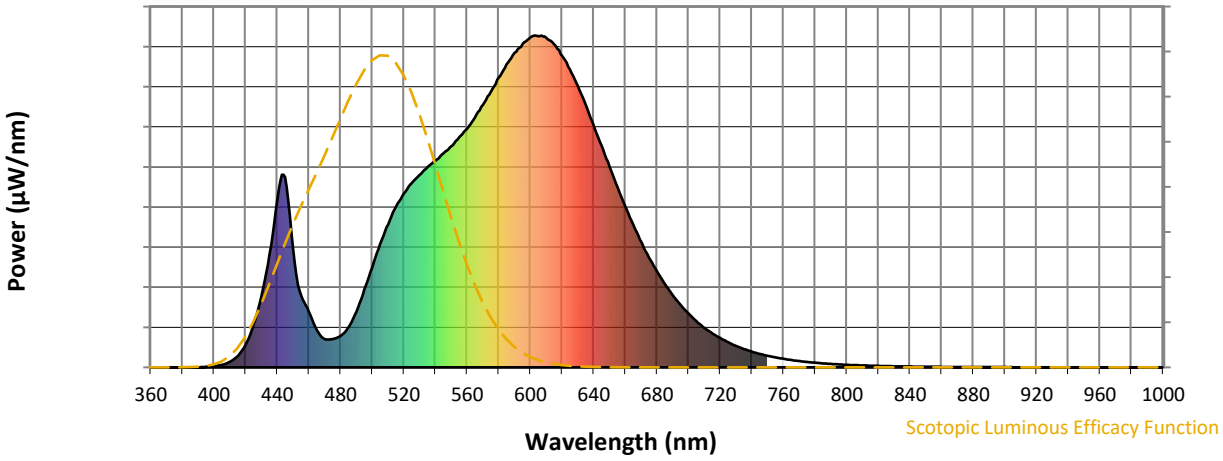
Scotopic Flux vs. Wavelength



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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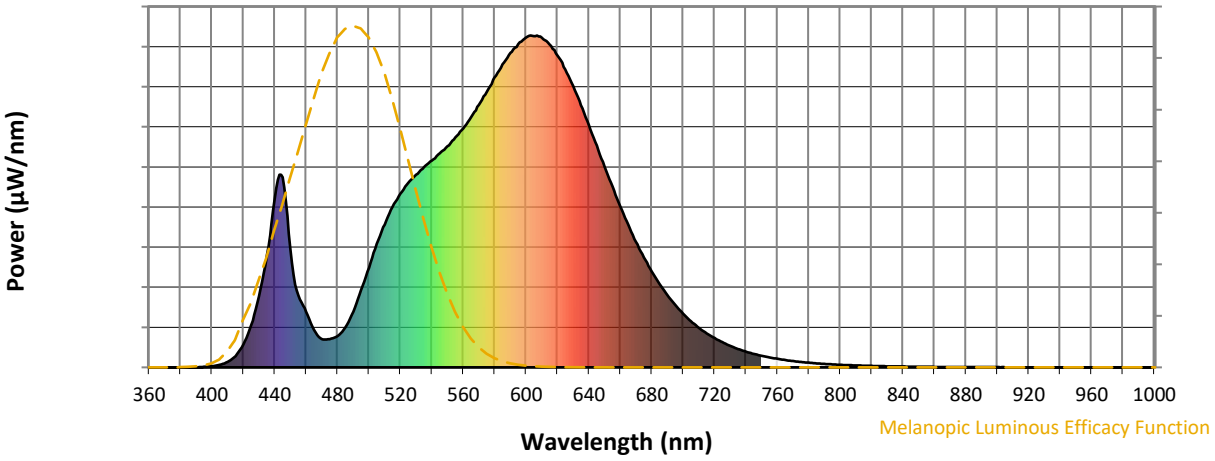
Melanopic Flux vs. Wavelength



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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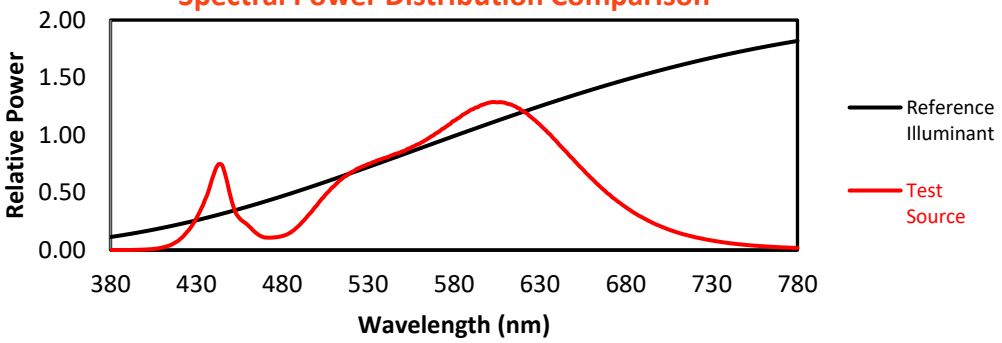
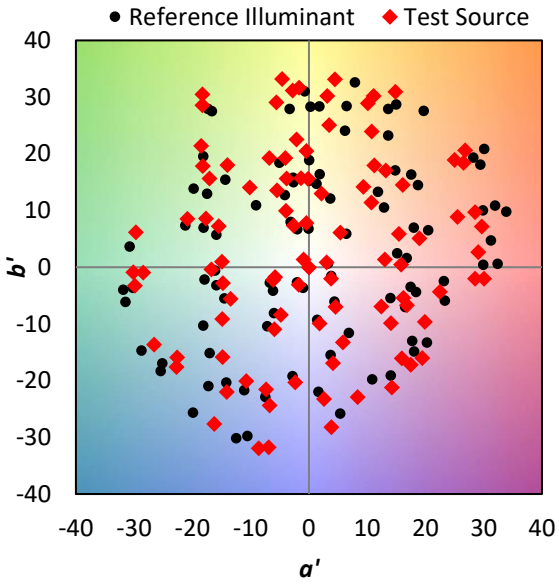
Summary

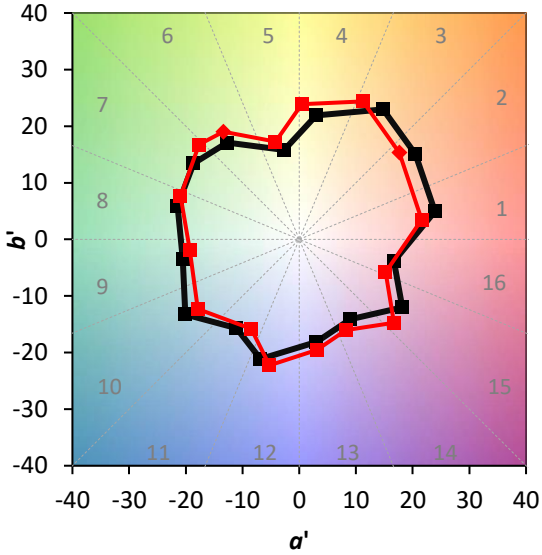
R_f = 81.5
R_g = 99.2
CIE R_a = 81.0
R_9 = 7.1

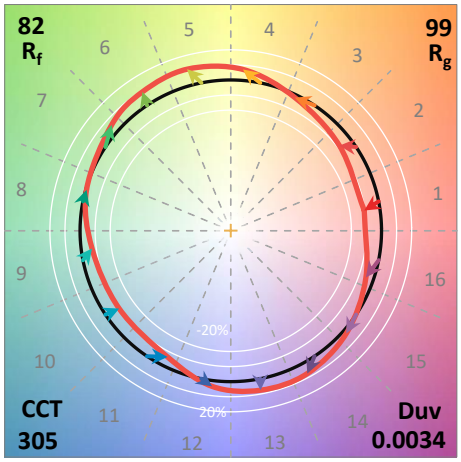
Spectral Power Distribution Comparison

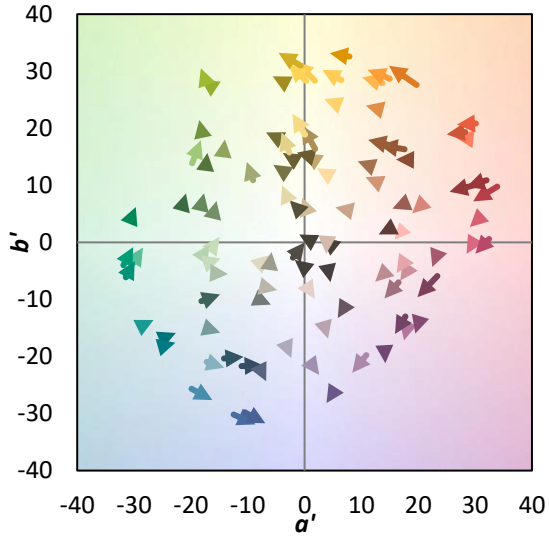


Color Vector Graphics









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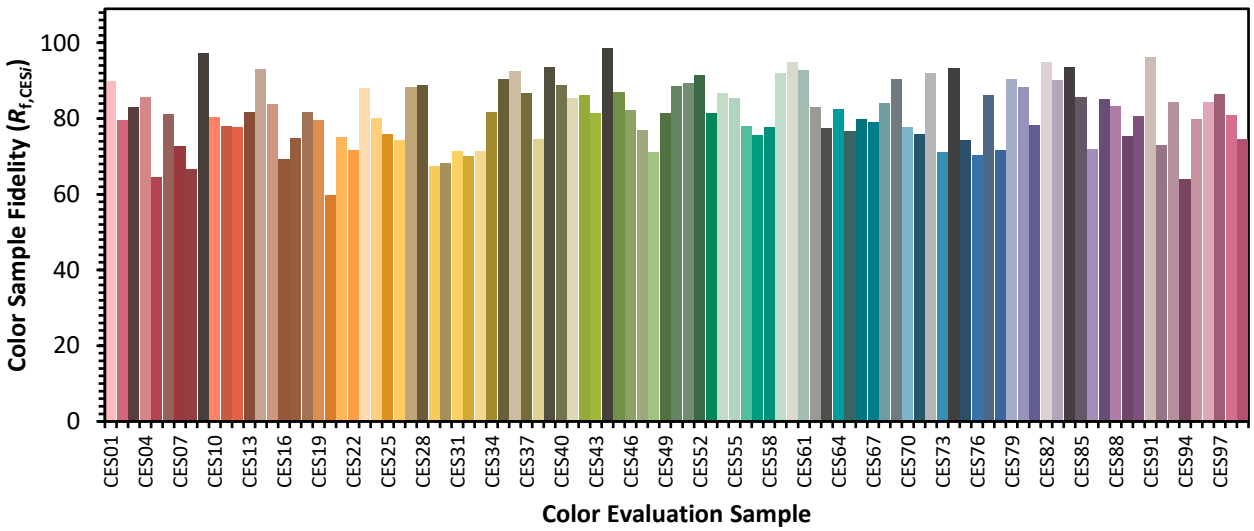
Individual Sample Fidelity Index ($R_{f,i}$)

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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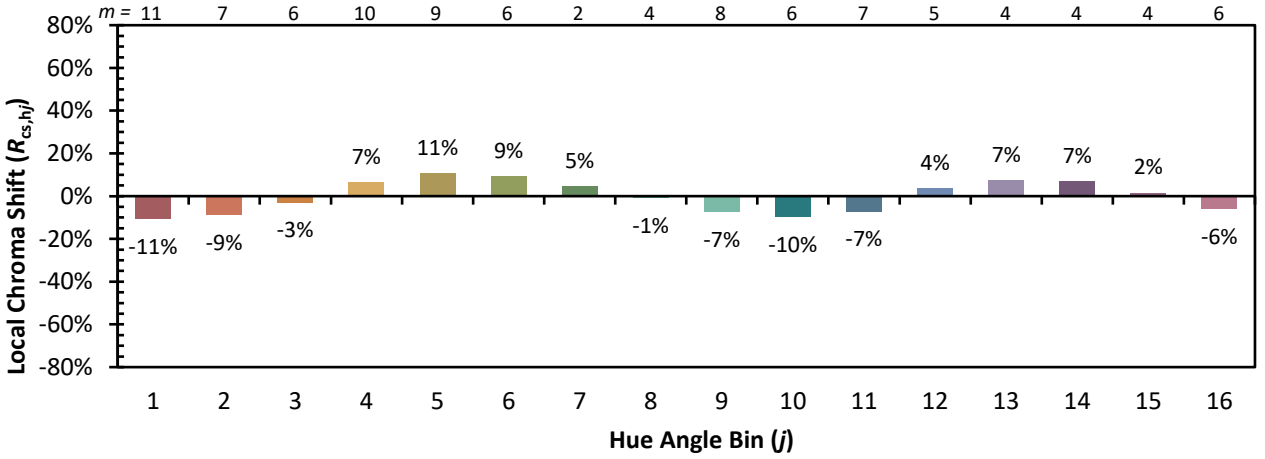
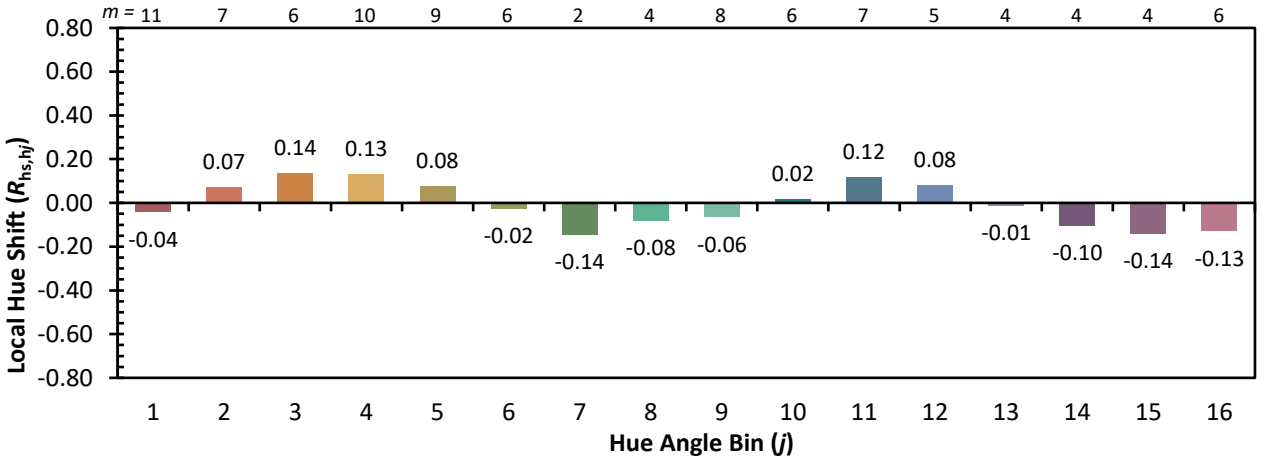
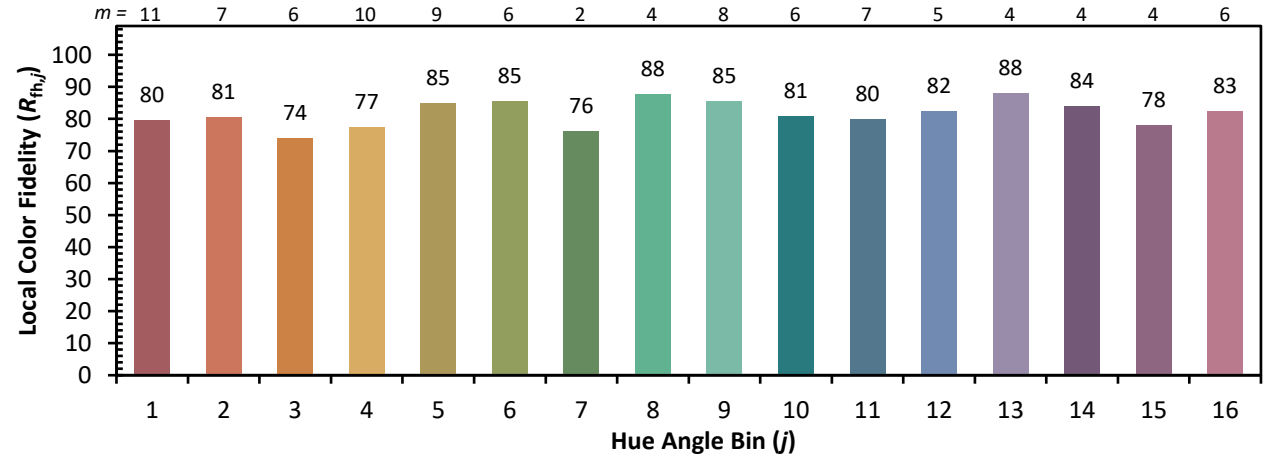
Color Rendition by Hue-Angle Bin







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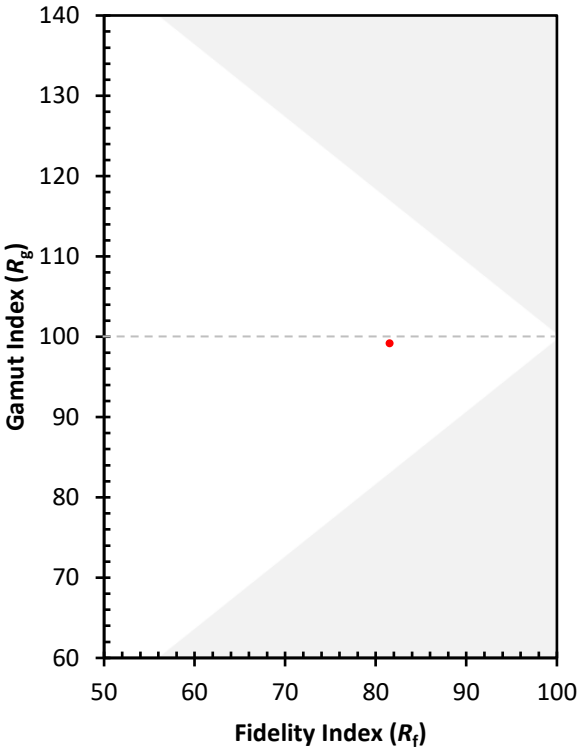
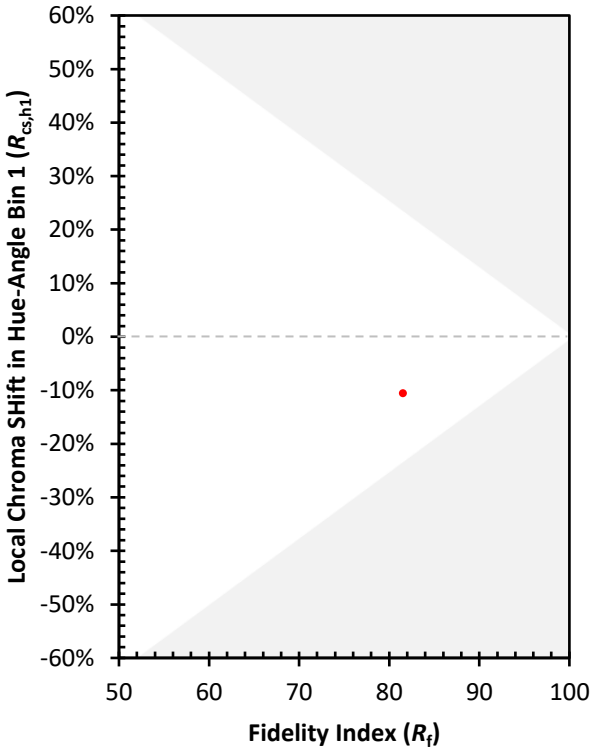
Measure Comparisons





(END OF REPORT)