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: P641432

Luminaire Tested: GWS-SA5F-830-U-AFL-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:	P641432
	TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-46)
Test Lab:	COOPER LIGHTING SOLUTIONS
Issue Date:	1/10/2023
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	McGRAW-EDISON
Catalog Number:	GWS-SA5F-830-U-AFL-W-GRSBK
Description:	GALLEON WALL SLIM LUMINAIRE. (5) LIGHTSQUARES WITH 16 LEDS EACH AND AUTOMOTIVE FRONTLINE OPTICS W/ FACTORY INSTALLED GLARE SHIELD, BK
Light Source:	(80) 3000K CCT, 80 CRI LEDS
Ballast/Driver:	-

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	24971.6 lumens
Efficiency:	N/A
Efficacy:	80.5 lumens/watt
Luminous Opening:	Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification:	Type II - Short
BUG Rating:	B3 - U0 - G1

Input Watts (W):	310.3
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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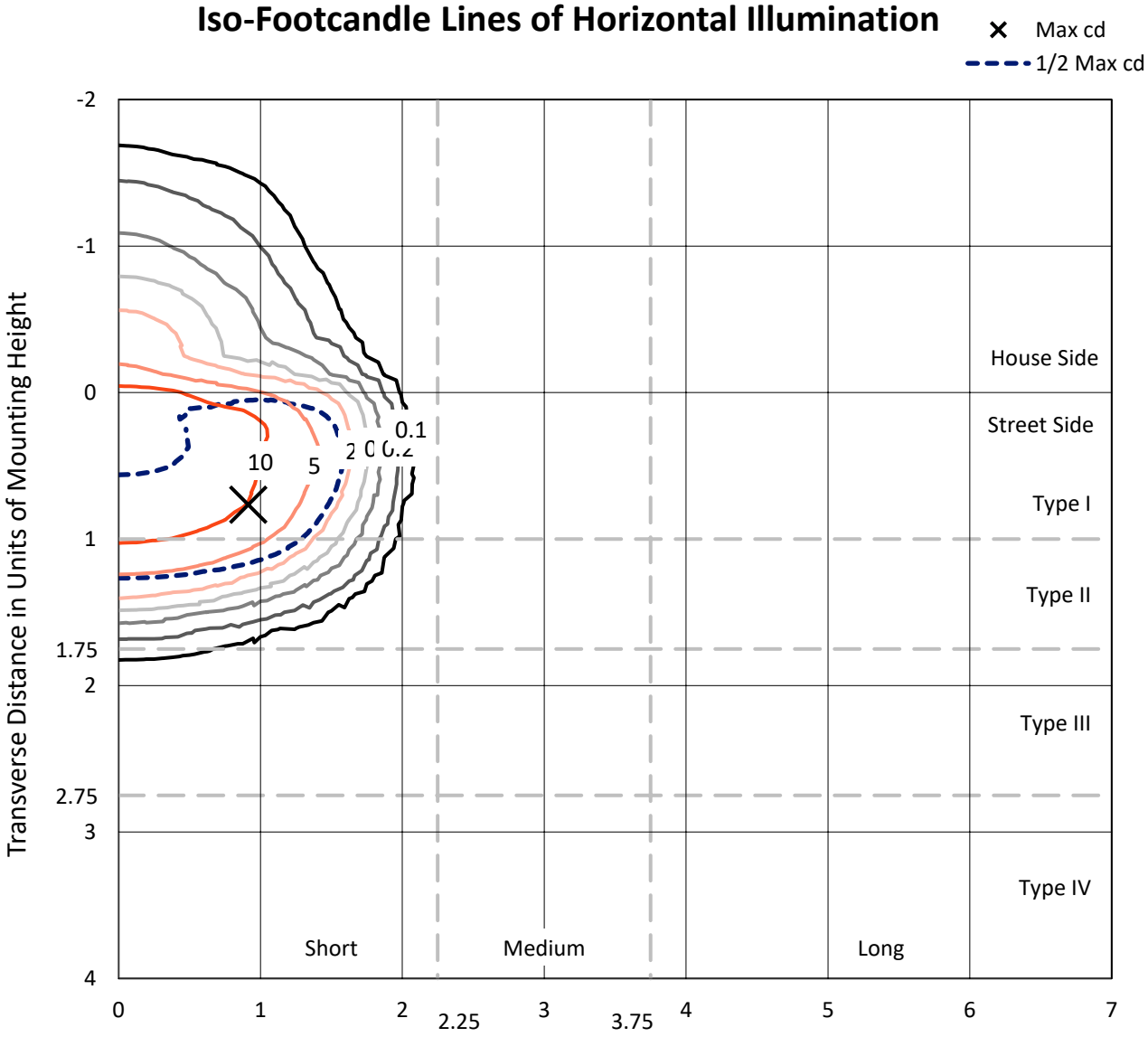
REPORT NUMBER: P641432
CATALOG NUMBER: GWS-SA5F-830-U-AFL-W-GRSBK

Iso-Footcandle Lines of Horizontal Illumination



Based on 25 foot mounting height. Maximum calculated value = 15.5 fc
Type II - Short - N/A

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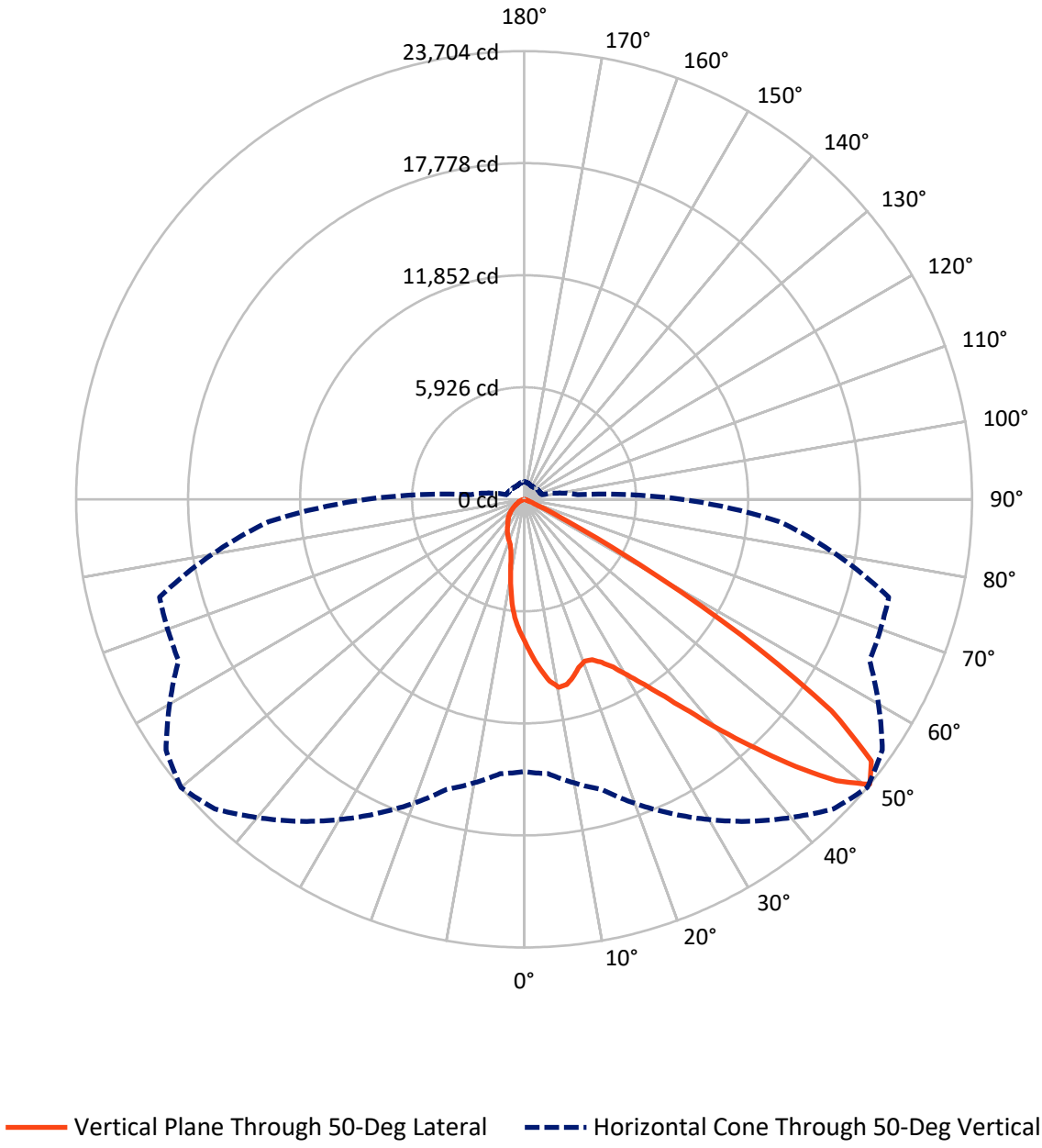
Luminous Intensity Polar Plot



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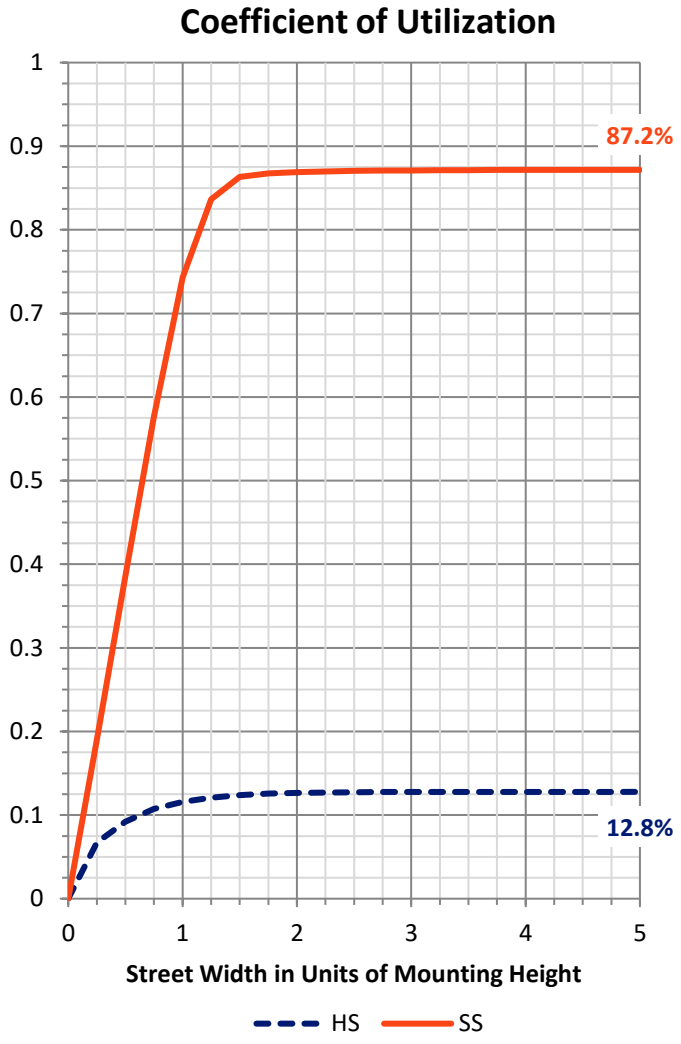
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3208.5	0.0	3208.5
	% Fixture	12.8	0.0	12.8
Street Side	Lumens	21763.1	0.0	21763.1
	% Fixture	87.2	0.0	87.2
Total	Lumens	24971.6	0.0	24971.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	701.8	2.8
10°-20°	1810.7	7.3
20°-30°	2988.3	12.0
30°-40°	4931.4	19.7
40°-50°	7802.6	31.2
50°-60°	5907.4	23.7
60°-70°	739.3	3.0
70°-80°	83.6	0.3
80°-90°	6.4	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°	24971.6	100.0
0°-180°	24971.6	100.0



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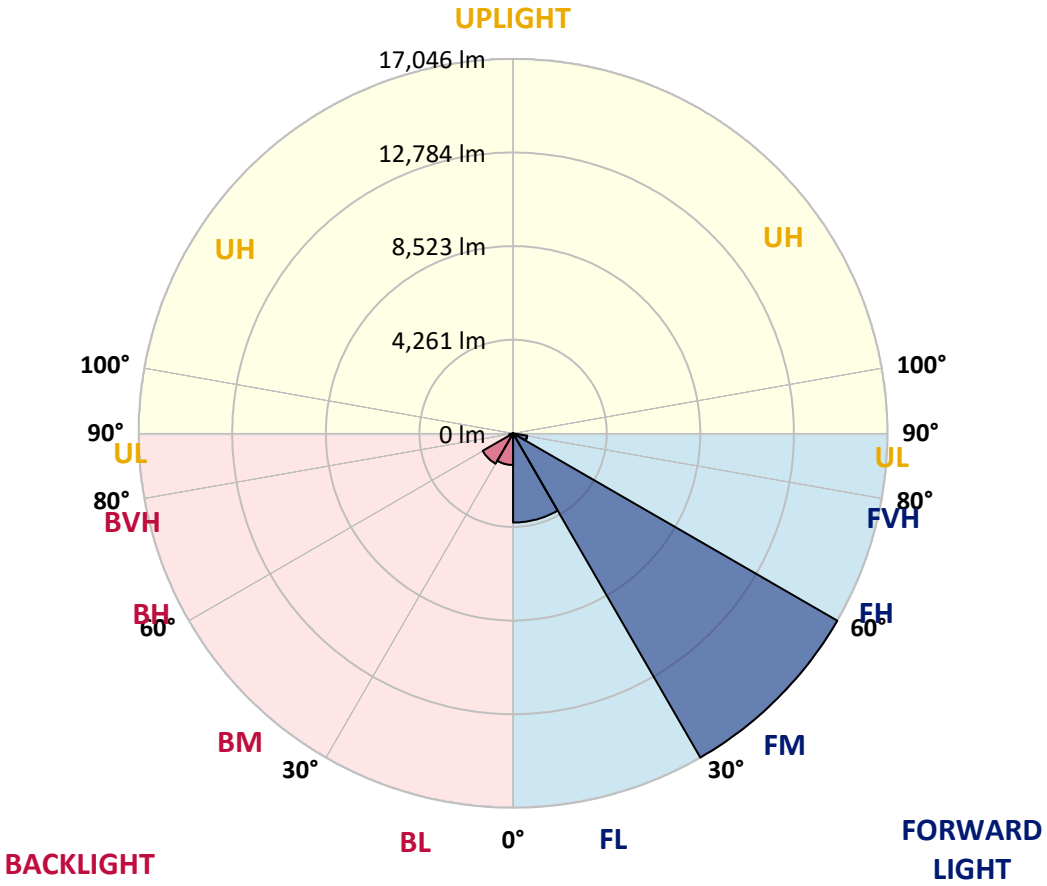
CATALOG NUMBER: GWS-SA5F-830-U-AFL-W-GRSBK

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	4060.7	16.3			
FM	(30°-60°)	17045.7	68.3			
FH	(60°-80°)	653.7	2.6			G0/660
FVH	(80°-90°)	3.0	0.0			G0/10
BL	(0°-30°)	1440.1	5.8	B3/2500		
BM	(30°-60°)	1595.6	6.4	B2/2500		
BH	(60°-80°)	169.3	0.7	B1/500		G1/500
BVH	(80°-90°)	3.4	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-G1
Type II Short



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REPORT NUMBER: P641432
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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	50°	55°	65°	75°	85°
0°	7565.4	7565.4	7565.4	7565.4	7565.4	7565.4	*7565.4*	7565.4	7565.4	7565.4	7565.4
2.5°	8620.7	8689.6	8670.6	8580.3	8482.9	8413.9	*8307.0*	8273.7	8031.3	7862.5	7684.2
5°	9661.8	9683.1	9659.4	9550.0	9378.9	9214.9	*9039.0*	8936.8	8530.4	8164.4	7791.2
7.5°	9911.3	9885.2	9930.3	9985.0	9961.2	9889.9	*9704.5*	9592.8	9108.0	8511.4	7945.7
10°	9131.7	9072.3	9241.1	9523.9	9821.0	10156.1	*10108.6*	10118.1	9671.3	8948.7	8147.7
12.5°	8097.8	8074.0	8200.0	8528.0	9110.3	9870.9	*10053.9*	10360.5	10187.0	9421.7	8378.3
15°	7643.8	7655.7	7731.8	7938.6	8356.9	9302.9	*9742.6*	10296.4	10648.1	9880.4	8632.6
17.5°	7712.8	7755.5	7753.2	7822.1	8076.4	8834.6	*9348.0*	10094.3	11004.7	10408.1	8924.9
20°	8181.0	8223.8	8159.6	8107.3	8192.9	8715.8	*9141.2*	9889.9	11244.7	10940.5	9233.9
22.5°	8882.2	8932.1	8780.0	8630.2	8575.5	8910.7	*9219.7*	9806.7	11427.7	11427.7	9509.6
25°	9730.7	9799.6	9564.3	9298.1	9146.0	9321.9	*9554.8*	9994.5	11615.5	11865.1	9697.4
27.5°	10679.0	10681.4	10479.4	10179.9	9894.7	9916.1	*10056.3*	10417.6	11822.3	12335.7	9844.8
30°	11746.2	11753.4	11484.8	11125.9	10767.0	10669.5	*10788.4*	11061.7	12252.5	12927.5	10049.2
32.5°	13124.8	13158.0	12773.0	12245.4	11779.5	11596.5	*11665.4*	11953.0	12937.0	13669.1	10355.8
35°	14988.2	15023.8	14455.8	13759.4	13017.8	12742.1	*12811.0*	13101.0	13928.1	14722.0	10845.4
37.5°	16827.8	16875.4	16300.2	15651.3	14634.0	14177.7	*14249.0*	14524.7	15416.0	16176.6	11629.8
40°	18099.4	18163.6	17985.4	17548.0	16604.4	16005.5	*16091.0*	16190.9	17053.6	17916.4	12647.0
42.5°	18769.7	18860.0	18936.1	19159.5	18662.8	18161.2	*18016.3*	18023.4	18719.8	19689.5	13704.7
45°	18810.1	18898.1	19287.9	20150.6	20528.6	20424.0	*20160.1*	19981.9	19991.4	20870.8	14365.5
47.5°	17502.9	17666.9	18396.5	20086.5	21507.8	22375.3	*22242.2*	21819.2	20526.2	20949.2	14294.2
50°	*14405.9*	*14567.5*	*15893.8*	*18325.2*	*20794.8*	*23154.9*	*23704.0*	*23135.9*	*20176.8*	*19972.4*	*13559.7*
52.5°	10462.7	10479.4	11339.8	14180.1	17904.5	21717.0	*23009.9*	22955.3	19644.4	18788.7	12556.7
55°	4969.9	4910.5	5877.9	8002.7	12383.2	17564.7	*19744.2*	20362.2	18888.5	17933.1	11779.5
57.5°	1447.5	1476.0	1906.2	3123.1	6194.0	11225.7	*13521.7*	14672.1	15504.0	14743.4	9136.5
60°	648.9	651.2	724.9	950.7	2063.1	5221.9	*6990.2*	8413.9	9269.6	8589.8	4532.6
62.5°	470.6	473.0	501.5	537.2	701.2	1768.4	*2621.6*	3493.9	3558.1	2329.3	1148.0
65°	392.2	392.2	396.9	396.9	420.7	632.2	*796.2*	1026.8	865.2	641.7	449.2
67.5°	316.1	318.5	323.2	323.2	316.1	316.1	*342.3*	375.5	401.7	496.8	413.6
70°	247.2	244.8	244.8	247.2	240.1	204.4	*221.0*	251.9	275.7	387.4	358.9
72.5°	192.5	194.9	192.5	183.0	166.4	121.2	*130.7*	164.0	175.9	242.4	242.4
75°	145.0	147.4	137.9	104.6	68.9	38.0	*49.9*	80.8	102.2	118.8	87.9
77.5°	19.0	19.0	14.3	14.3	11.9	14.3	*14.3*	19.0	28.5	28.5	21.4
80°	2.4	2.4	2.4	4.8	7.1	9.5	*9.5*	9.5	9.5	11.9	11.9
82.5°	2.4	2.4	2.4	2.4	7.1	7.1	*9.5*	9.5	9.5	9.5	9.5
85°	0.0	0.0	0.0	2.4	4.8	7.1	*7.1*	9.5	9.5	9.5	9.5
87.5°	0.0	0.0	0.0	2.4	4.8	7.1	*7.1*	7.1	9.5	9.5	9.5
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-SA5F-830-U-AFL-W-GRSBK

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	7565.4	7565.4	7565.4	7565.4	7565.4	7565.4	7565.4	7565.4	7565.4	7565.4	7565.4
2.5°	7577.3	7439.4	7273.1	7159.0	6997.3	6890.4	6738.3	6636.1	6548.1	6479.2	6517.2
5°	7579.7	7361.0	7021.1	6731.1	6415.0	6125.1	5813.7	5568.9	5347.8	5248.0	5302.7
7.5°	7627.2	7313.5	6792.9	6277.2	5671.1	5072.1	4511.2	4054.8	3829.0	3722.1	3755.4
10°	7719.9	7292.1	6538.6	5683.0	4699.0	3881.3	3337.0	3028.1	2902.1	2835.5	2847.4
12.5°	7805.5	7277.8	6208.2	4901.0	3707.8	3011.4	2728.6	2685.8	2711.9	2714.3	2711.9
15°	7921.9	7251.7	5799.4	4097.6	2966.3	2602.6	2609.7	2671.5	2733.3	2752.4	2747.6
17.5°	8045.5	7211.3	5271.8	3327.5	2517.0	2483.8	2567.0	2650.1	2711.9	2721.5	2723.8
20°	8173.9	7128.1	4670.4	2716.7	2307.9	2393.5	2486.1	2547.9	2593.1	2607.4	2612.1
22.5°	8233.3	6952.2	3976.4	2279.4	2167.7	2281.7	2350.7	2431.5	2445.7	2393.5	2403.0
25°	8202.4	6655.1	3299.0	1984.6	2027.4	2141.5	2243.7	2203.3	2143.9	2105.9	2117.7
27.5°	8104.9	6260.5	2635.9	1768.4	1877.7	2022.7	2034.6	1989.4	1979.9	1949.0	1958.5
30°	8000.4	5806.6	2120.1	1594.8	1725.6	1877.7	1842.0	1858.7	1861.0	1825.4	1837.3
32.5°	7936.2	5331.2	1687.5	1478.4	1628.1	1656.6	1727.9	1761.2	1763.6	1680.4	1694.7
35°	7957.6	4863.0	1428.5	1383.3	1537.8	1530.7	1630.5	1649.5	1511.7	1397.6	1409.5
37.5°	8131.1	4430.4	1281.1	1309.6	1380.9	1435.6	1511.7	1385.7	1354.8	1302.5	1309.6
40°	8454.3	4062.0	1193.2	1264.5	1274.0	1361.9	1245.5	1262.1	1264.5	1231.2	1238.3
42.5°	8832.2	3755.4	1140.9	1238.3	1214.6	1228.8	1112.3	1145.6	1181.3	1167.0	1169.4
45°	9022.4	3455.9	1095.7	1148.0	1155.1	1019.7	993.5	1029.2	1074.3	1081.5	1083.8
47.5°	8853.6	3170.7	1048.2	1017.3	1064.8	929.3	898.4	910.3	962.6	991.1	995.9
50°	*8337.9*	*2842.7*	*976.9*	*900.8*	*874.7*	*834.3*	*805.7*	*808.1*	*867.5*	*917.5*	*927.0*
52.5°	7612.9	2500.4	860.4	763.0	703.5	734.4	741.6	727.3	782.0	831.9	841.4
55°	6909.4	2072.6	682.1	620.3	565.7	632.2	651.2	632.2	648.9	682.1	684.5
57.5°	4865.3	1171.8	522.9	513.4	468.2	541.9	572.8	544.3	515.8	537.2	541.9
60°	2255.6	613.2	401.7	401.7	389.8	465.9	518.1	477.7	423.1	432.6	439.7
62.5°	705.9	387.4	294.7	278.1	318.5	396.9	439.7	399.3	335.1	335.1	344.6
65°	399.3	332.8	232.9	213.9	259.1	318.5	344.6	301.9	244.8	240.1	240.1
67.5°	370.8	316.1	206.8	173.5	183.0	204.4	213.9	185.4	168.8	166.4	168.8
70°	306.6	263.8	166.4	118.8	111.7	109.3	114.1	107.0	102.2	104.6	111.7
72.5°	190.1	159.2	104.6	71.3	61.8	59.4	59.4	59.4	57.0	57.0	57.0
75°	68.9	59.4	47.5	35.7	30.9	28.5	28.5	30.9	28.5	26.1	23.8
77.5°	21.4	19.0	19.0	19.0	16.6	14.3	11.9	11.9	9.5	7.1	7.1
80°	11.9	11.9	11.9	11.9	9.5	9.5	7.1	4.8	2.4	2.4	0.0
82.5°	11.9	11.9	11.9	9.5	9.5	9.5	7.1	4.8	2.4	0.0	0.0
85°	9.5	9.5	9.5	9.5	9.5	9.5	7.1	4.8	2.4	0.0	0.0
87.5°	9.5	9.5	9.5	9.5	9.5	9.5	7.1	4.8	2.4	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

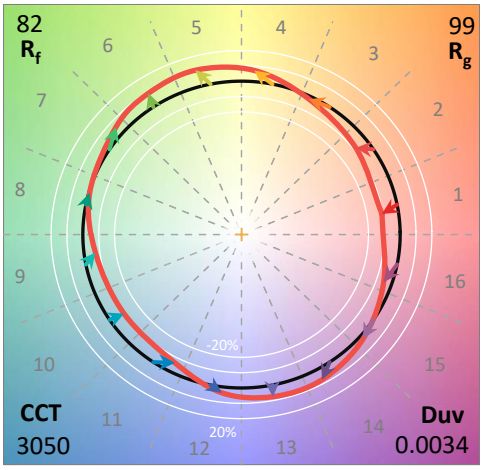
Test Information

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

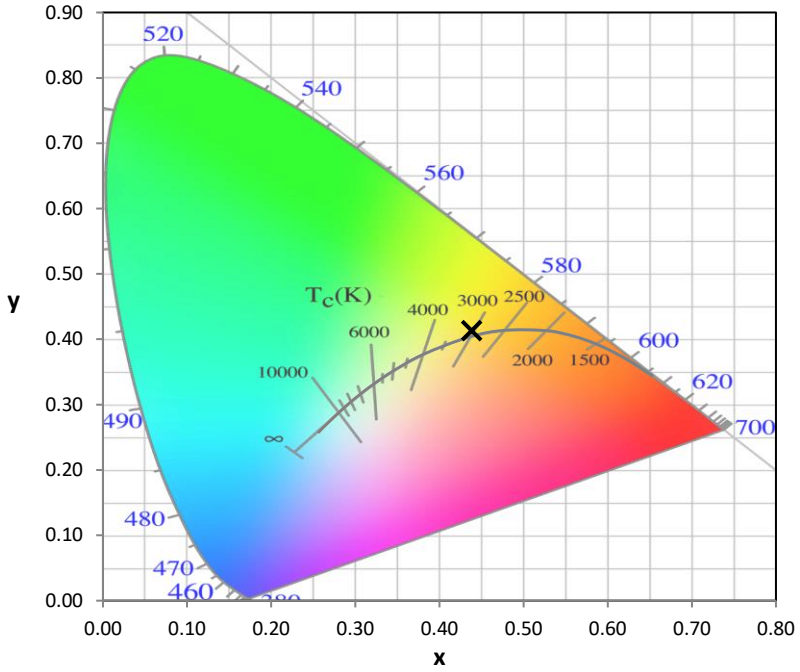
Stabilization Time:	20M
Operation Time:	1H 20M
Sphere Temperature (°C):	24.2

REPORT NUMBER: SP1-2408-195-9

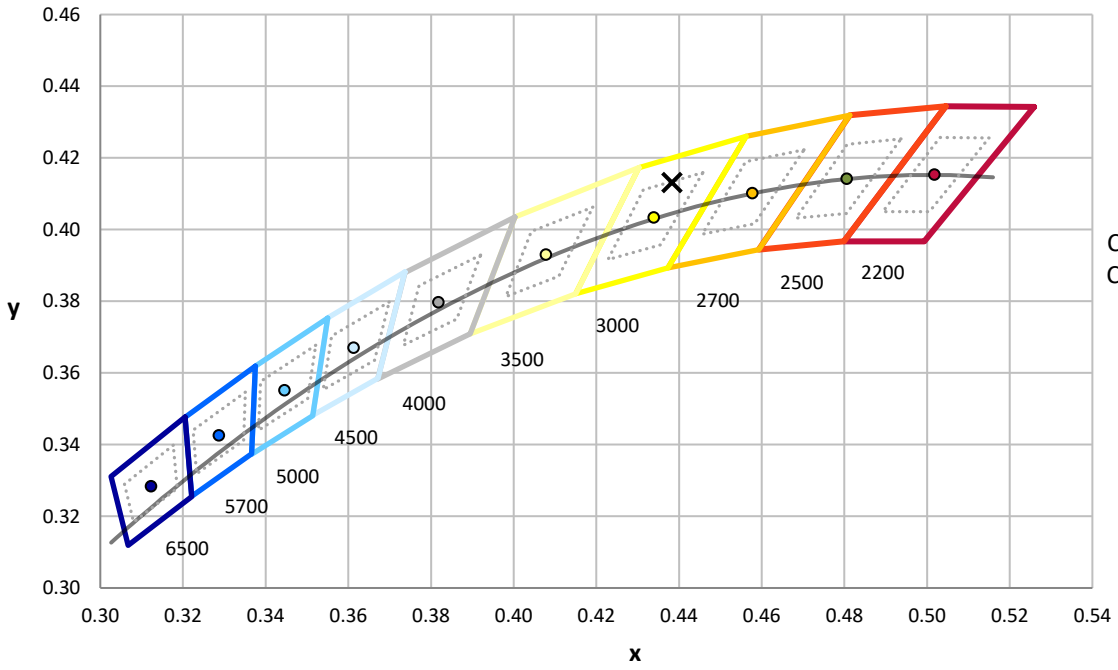
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

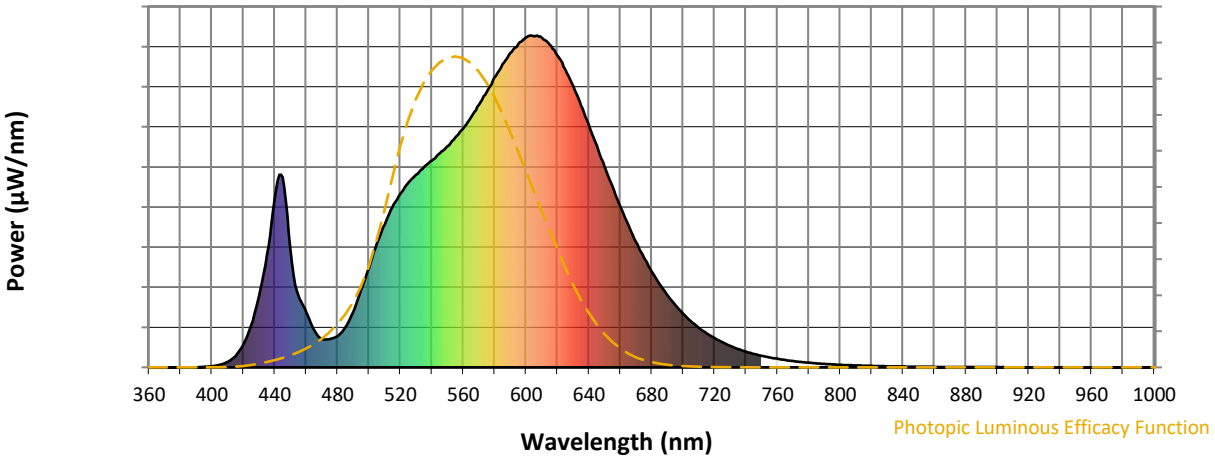


CCT = 3050K
CIE x = 0.4383
CIE y = 0.4131
Duv = 0.0034

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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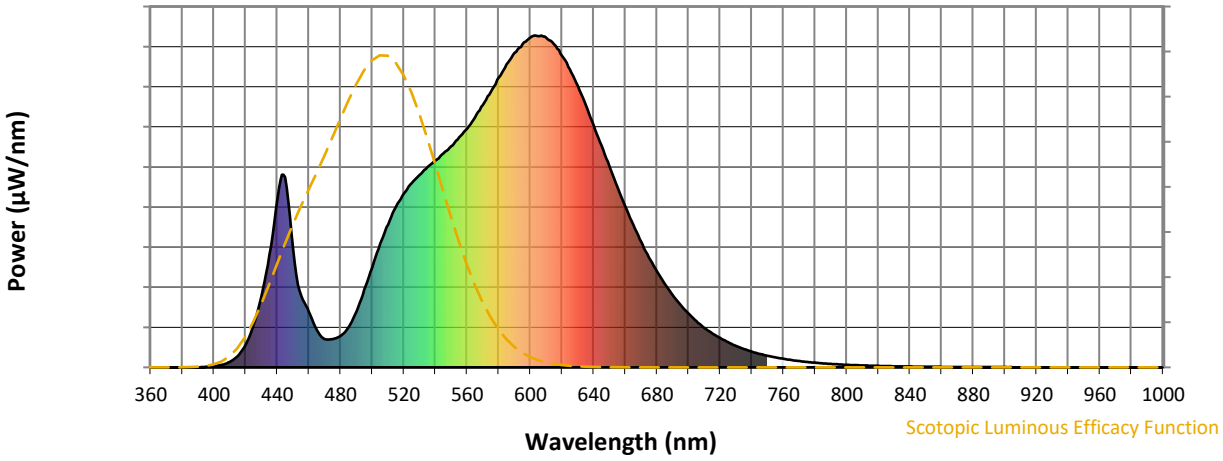
Scotopic Flux vs. Wavelength



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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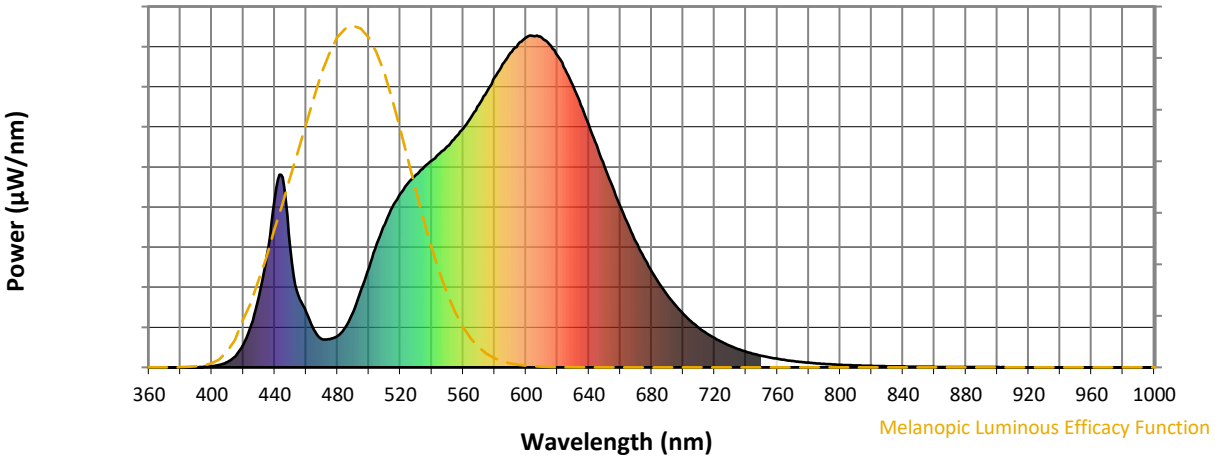
Melanopic Flux vs. Wavelength



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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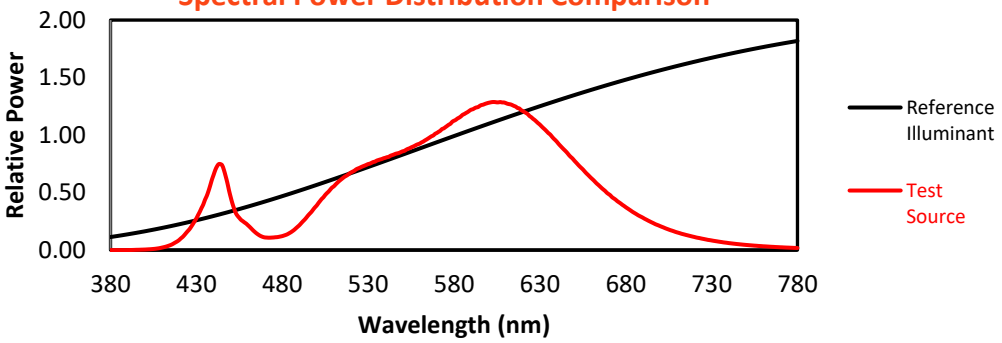
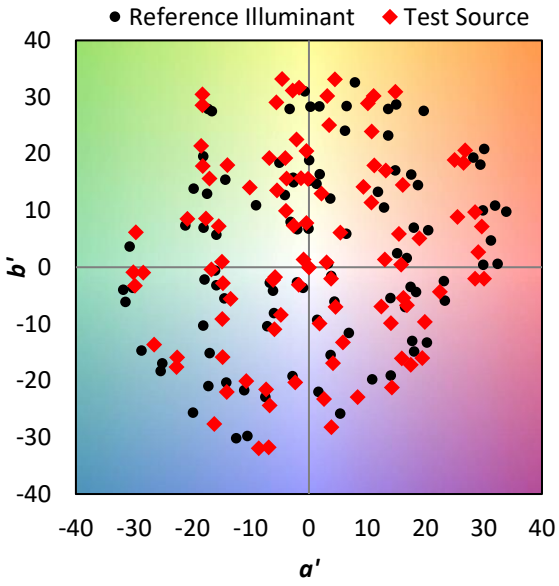
Summary

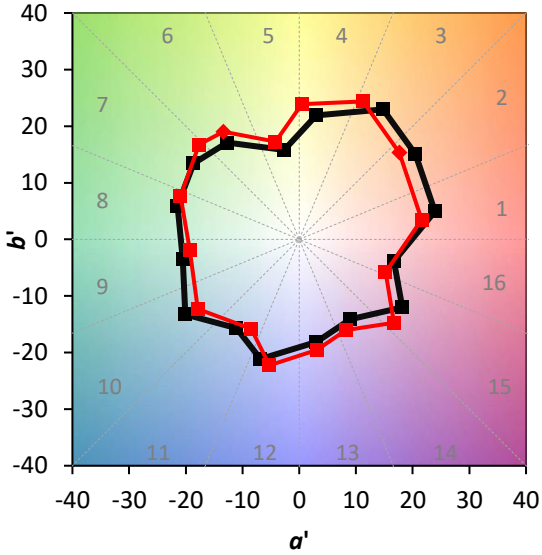
R_f = 81.5
R_g = 99.2
CIE R_a = 81.0
R_9 = 7.1

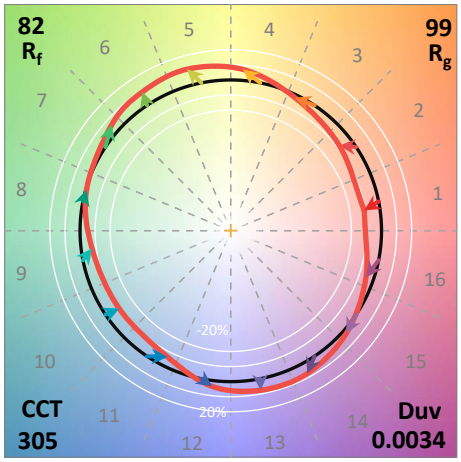
Spectral Power Distribution Comparison

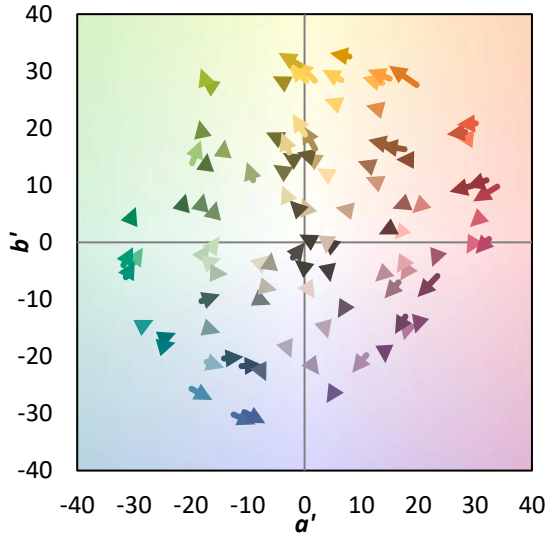


Color Vector Graphics









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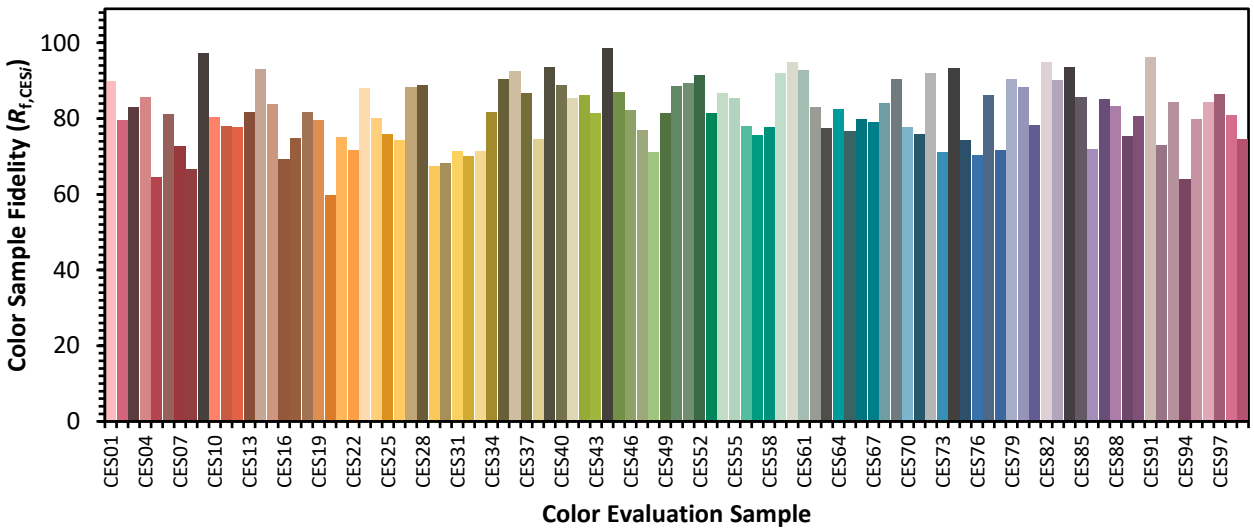
Individual Sample Fidelity Index ($R_{f,i}$)

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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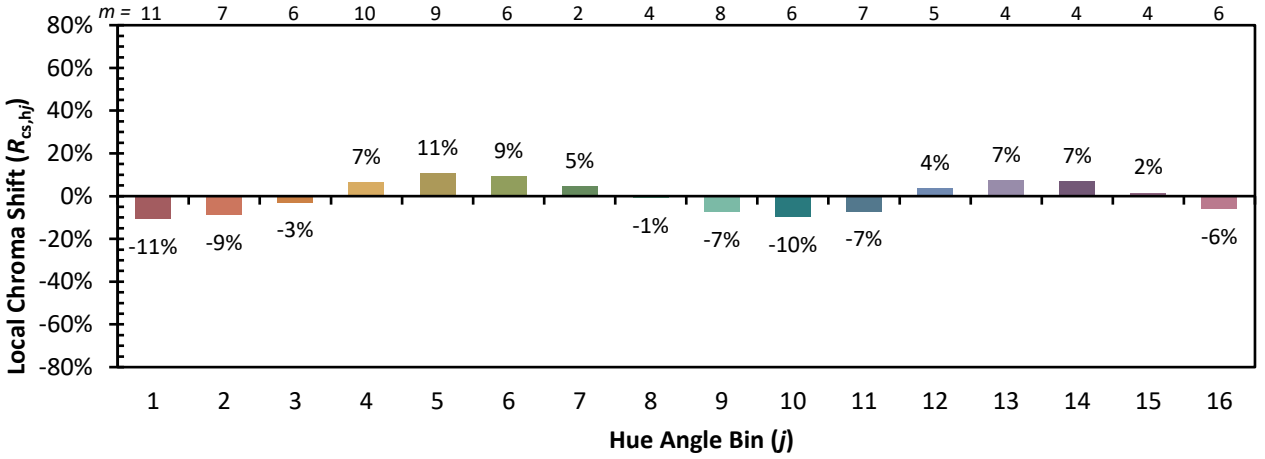
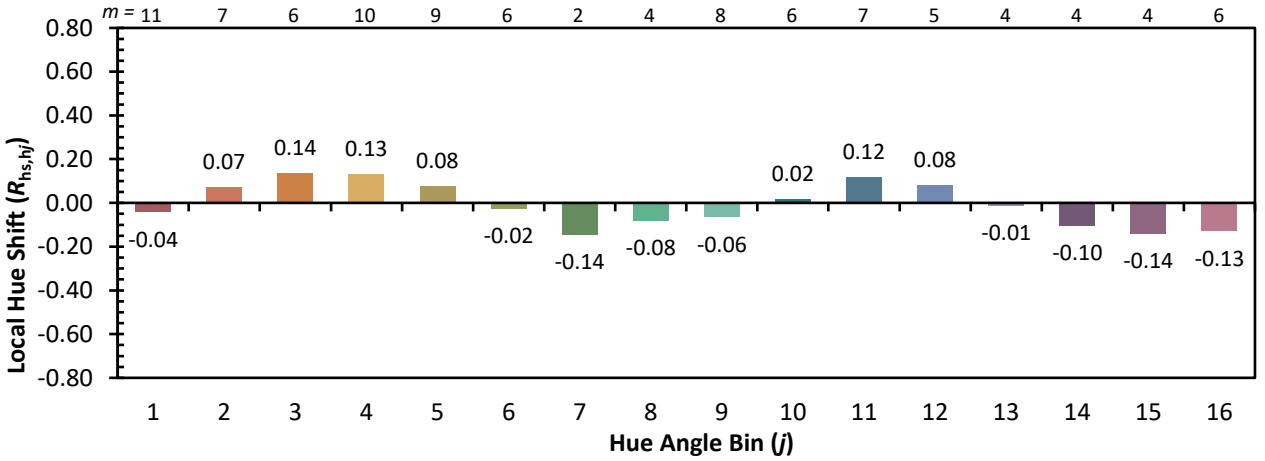
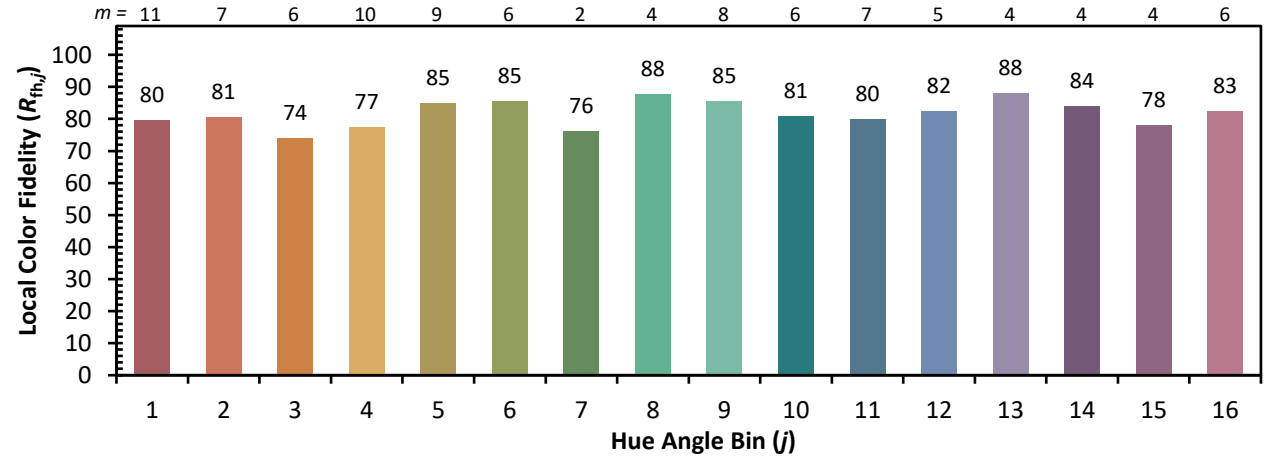
Color Rendition by Hue-Angle Bin







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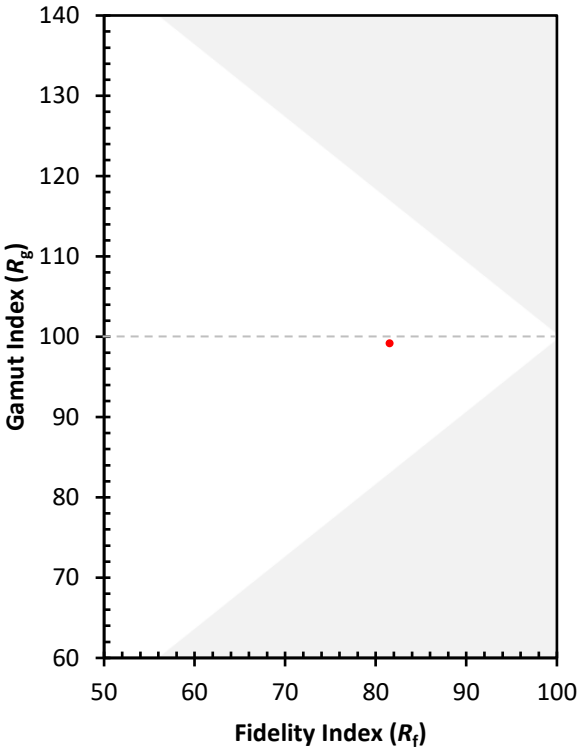
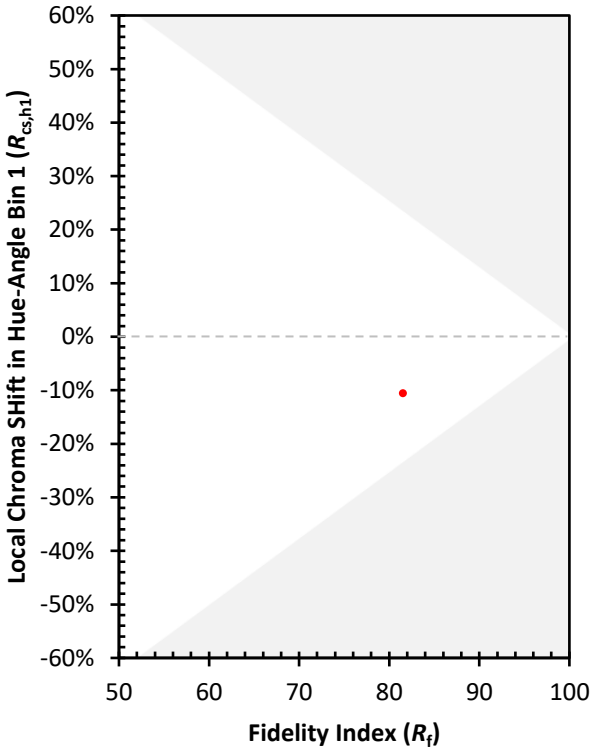
Measure Comparisons





(END OF REPORT)