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: P638969

Luminaire Tested: GWS-SA4F-830-U-SL3-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:	P638969
	TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-33)
Test Lab:	COOPER LIGHTING SOLUTIONS
Issue Date:	1/10/2023
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	McGRAW-EDISON
Catalog Number:	GWS-SA4F-830-U-SL3-W-GRSWH
Description:	GALLEON WALL SLIM LUMINAIRE. (4) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III SPILL LIGHT ELIMINATOR OPTICS W/ FACTORY INSTALLED GLARE SHIELD, WH
Light Source:	(64) 3000K CCT, 80 CRI LEDS
Ballast/Driver:	-

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	22635.2 lumens
Efficiency:	N/A
Efficacy:	100.5 lumens/watt
Luminous Opening:	Rectangular (W 1' x L: 1' x H: 0')
IES Classification:	Type II - Short
BUG Rating:	B3 - U0 - G3

Input Watts (W):	225.3
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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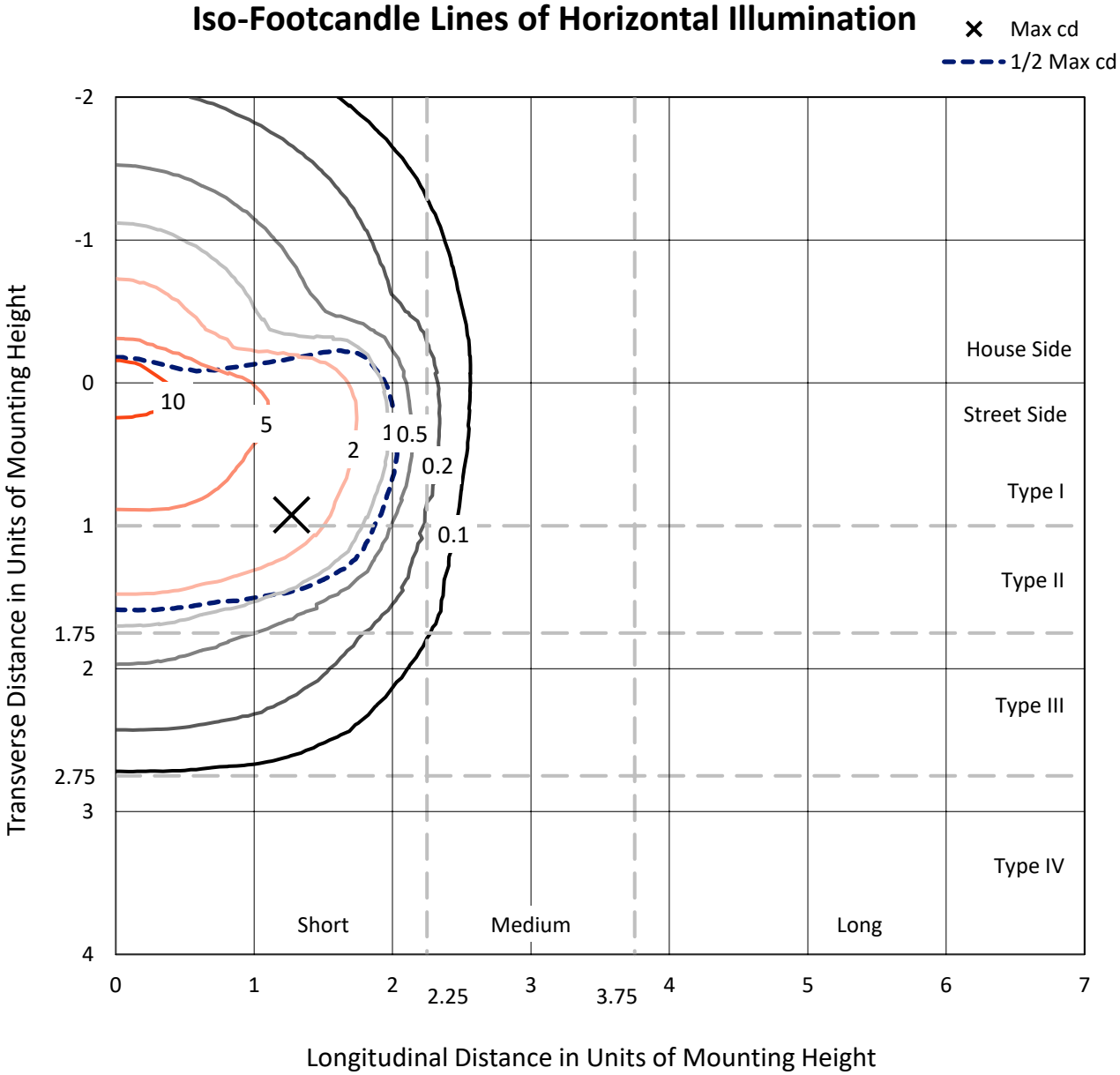
REPORT NUMBER: P638969
CATALOG NUMBER: GWS-SA4F-830-U-SL3-W-GRSWH

Iso-Footcandle Lines of Horizontal Illumination



Based on 25 foot mounting height. Maximum calculated value = 13.9 fc
Type II - Short - N/A

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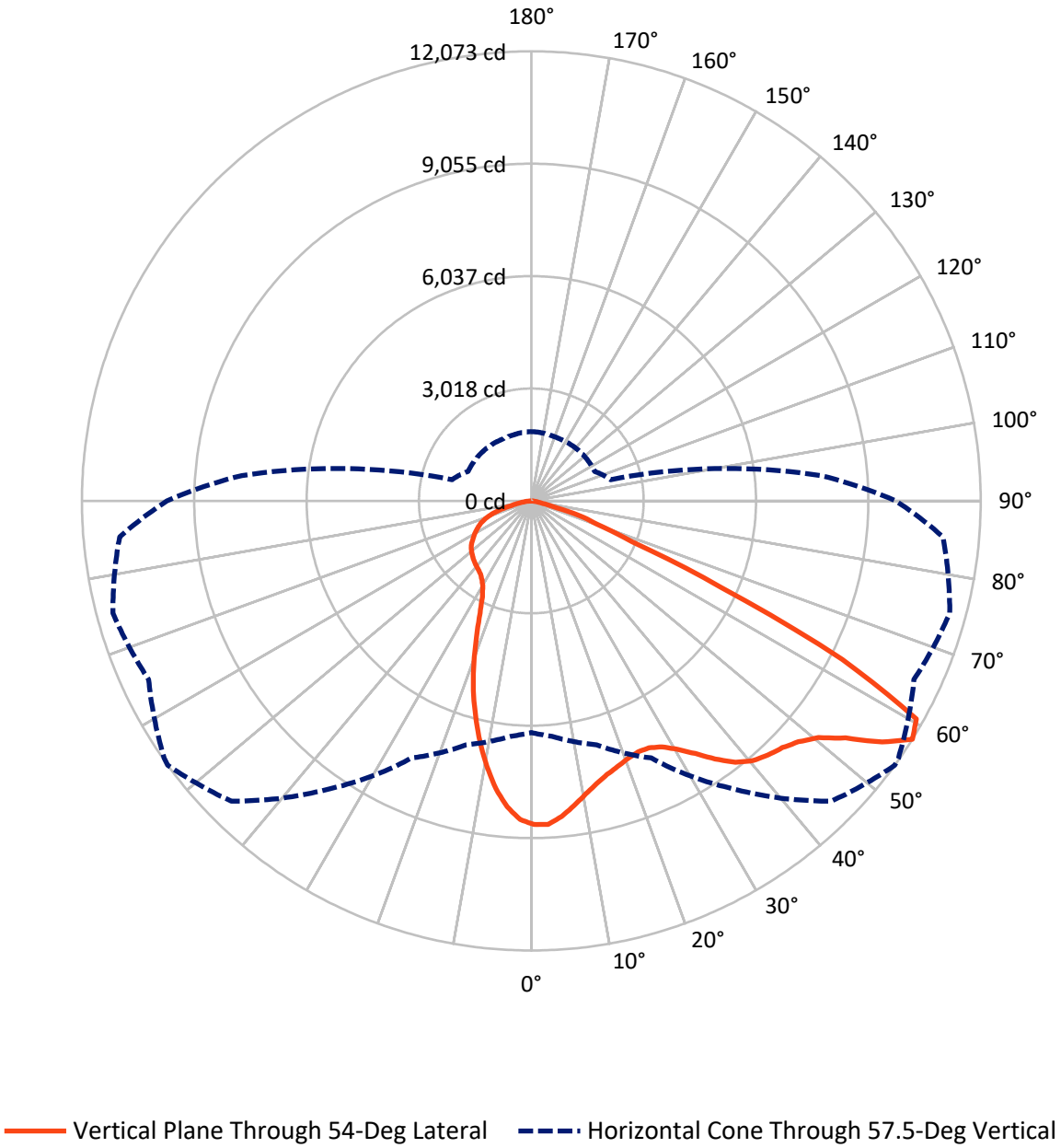
Luminous Intensity Polar Plot



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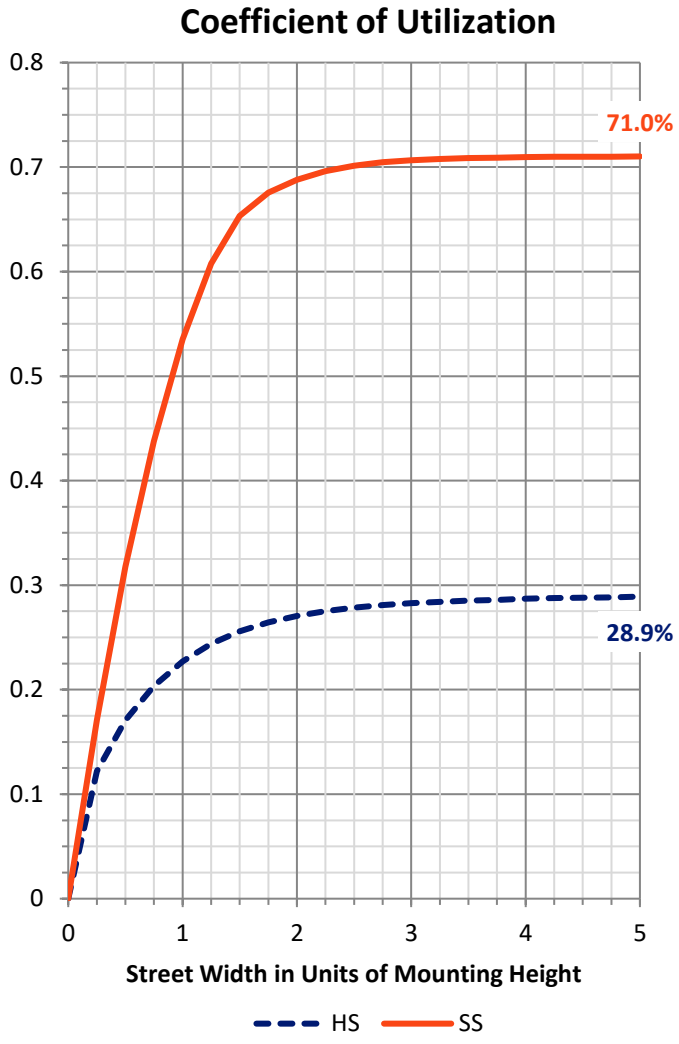
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6580.3	0.0	6580.3
	% Fixture	29.1	0.0	29.1
Street Side	Lumens	16054.9	0.0	16054.9
	% Fixture	70.9	0.0	70.9
Total	Lumens	22635.2	0.0	22635.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	763.9	3.4
10°-20°	1822.7	8.1
20°-30°	2522.3	11.1
30°-40°	3504.7	15.5
40°-50°	4628.7	20.4
50°-60°	5500.5	24.3
60°-70°	3047.4	13.5
70°-80°	758.9	3.4
80°-90°	86.3	0.4
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°	22635.2	100.0
0°-180°	22635.2	100.0



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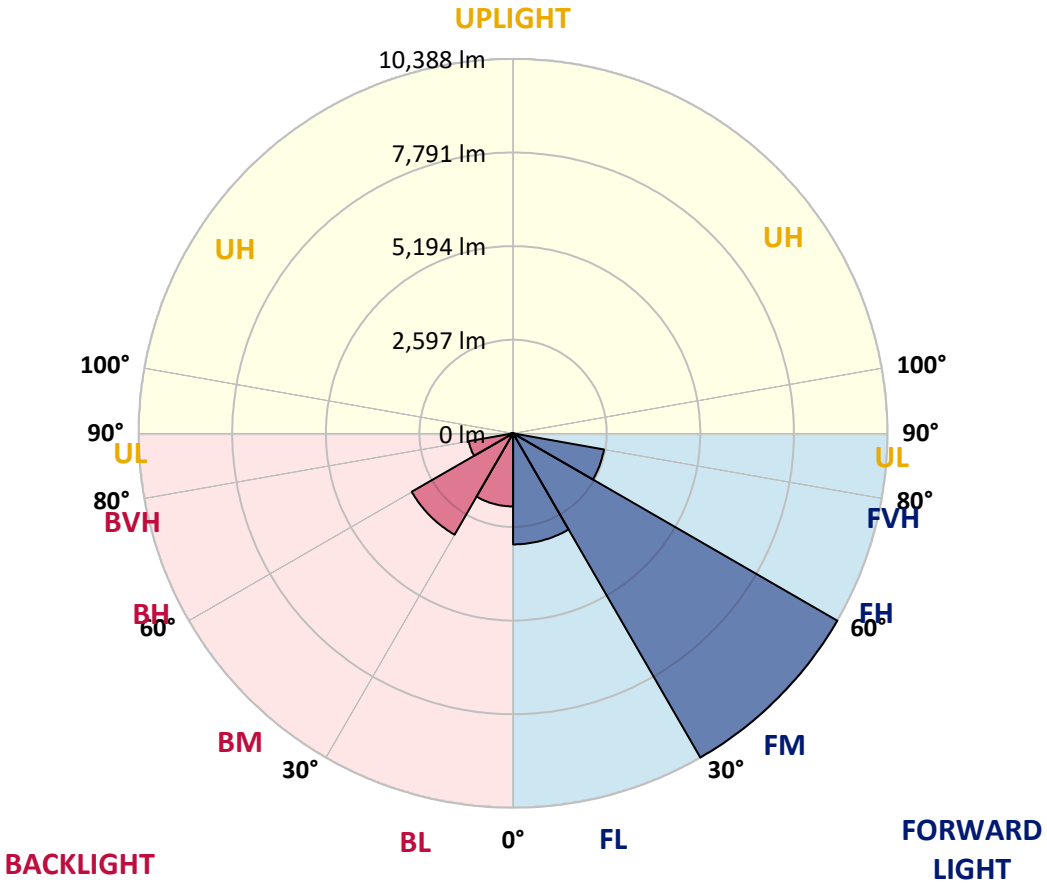
CATALOG NUMBER: GWS-SA4F-830-U-SL3-W-GRSWH

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	3081.0	13.6			
FM	(30°-60°)	10387.7	45.9			
FH	(60°-80°)	2559.2	11.3			G2/5000
FVH	(80°-90°)	27.0	0.1			G1/100
BL	(0°-30°)	2027.8	9.0	B3/2500		
BM	(30°-60°)	3246.2	14.3	B3/5000		
BH	(60°-80°)	1247.0	5.5	B3/2500		G3/2500
BVH	(80°-90°)	59.3	0.3			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3
Type II Short



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REPORT NUMBER: P638969
CATALOG NUMBER: GWS-SA4F-830-U-SL3-W-GRSWH

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	54°	55°	65°	75°	85°
0°	8690.2	8690.2	8690.2	8690.2	8690.2	8690.2	*8690.2*	8690.2	8690.2	8690.2	8690.2
2.5°	8527.4	8544.8	8556.5	8597.2	8632.0	8663.0	*8696.0*	8696.0	8694.0	8688.2	8676.6
5°	8190.3	8209.6	8236.8	8293.0	8368.5	8422.8	*8511.9*	8519.7	8558.4	8573.9	8566.2
7.5°	7798.9	7804.7	7839.6	7913.2	8033.3	8130.2	*8258.1*	8273.6	8366.6	8420.8	8411.2
10°	7370.7	7351.3	7413.3	7521.8	7678.7	7841.5	*8006.2*	8019.8	8169.0	8271.6	8263.9
12.5°	6979.3	6981.2	7043.2	7175.0	7370.7	7572.2	*7793.1*	7824.1	8008.1	8139.9	8126.3
15°	6651.8	6659.6	6735.1	6884.3	7107.1	7347.4	*7622.5*	7651.6	7884.1	8058.5	8019.8
17.5°	6390.2	6398.0	6463.9	6634.4	6872.7	7163.3	*7498.5*	7527.6	7816.3	8023.6	7944.2
20°	6210.0	6206.2	6270.1	6432.9	6678.9	6994.8	*7390.0*	7432.7	7795.0	8037.2	7893.8
22.5°	6136.4	6134.5	6181.0	6314.7	6545.2	6864.9	*7324.2*	7382.3	7818.2	8097.3	7862.8
25°	6173.2	6165.5	6206.2	6305.0	6489.0	6814.6	*7343.5*	7405.5	7917.1	8221.3	7868.6
27.5°	6287.5	6277.8	6312.7	6401.9	6541.4	6866.9	*7479.2*	7550.9	8126.3	8448.0	7946.1
30°	6461.9	6456.1	6491.0	6576.2	6698.3	7041.3	*7738.8*	7820.2	8449.9	8800.6	8114.7
32.5°	6665.4	6655.7	6717.7	6816.5	6957.9	7359.0	*8087.6*	8194.1	8833.6	9254.0	8397.6
35°	6894.0	6886.3	6971.5	7114.9	7318.3	7800.8	*8510.0*	8626.2	9224.9	9767.5	8773.5
37.5°	7116.8	7116.8	7281.5	7494.7	7750.4	8281.3	*8907.2*	8980.8	9496.2	10222.8	9176.5
40°	7314.5	7326.1	7574.1	7893.8	8219.3	8715.4	*9168.8*	9230.8	9616.3	10536.7	9527.2
42.5°	7533.4	7543.1	7831.8	8250.3	8637.9	9066.1	*9327.6*	9358.6	9639.6	10693.7	9775.2
45°	7707.8	7721.4	8079.8	8527.4	9002.1	9329.6	*9453.6*	9480.7	9672.5	10778.9	9955.4
47.5°	7798.9	7818.2	8229.0	8750.2	9248.2	9566.0	*9660.9*	9672.5	9808.2	10928.1	10172.4
50°	7783.4	7822.1	8285.2	8860.7	9430.3	9804.3	*9994.2*	10013.6	10085.2	11147.1	10426.3
52.5°	7920.9	7938.4	8405.3	8992.4	9690.0	10244.1	*10573.5*	10600.6	10567.7	11311.7	10577.4
55°	7692.3	7775.6	8256.1	8973.1	10085.2	10924.2	*11431.9*	11418.3	11005.6	11495.8	10829.3
57.5°	*6221.7*	*6343.7*	*6783.6*	*7616.7*	*9434.2*	*11400.9*	*12073.2*	*12040.3*	*11344.7*	*11637.3*	*11102.5*
60°	4307.3	4326.7	4723.9	5314.9	7281.5	10071.7	*11885.3*	11957.0	11406.7	11459.0	10596.8
62.5°	3445.1	3439.3	3476.1	3491.6	4630.9	7080.0	*9381.9*	9643.5	9476.8	8928.5	7510.2
65°	2941.3	2962.6	3071.1	3014.9	3022.7	3987.6	*5605.5*	5642.3	5526.1	5328.4	3972.1
67.5°	2301.9	2338.7	2530.5	2749.5	2679.7	2567.3	*2908.3*	2890.9	2278.6	1763.2	1457.1
70°	1441.6	1464.8	1670.2	2158.5	2332.9	2108.1	*1869.8*	1862.0	1220.7	1003.7	1100.6
72.5°	840.9	844.8	902.9	1203.3	1548.1	1441.6	*1375.7*	1325.3	784.7	800.2	877.7
75°	463.1	463.1	461.2	519.3	610.3	540.6	*523.2*	509.6	525.1	594.8	653.0
77.5°	96.9	98.8	104.6	137.6	178.3	217.0	*273.2*	275.1	343.0	397.2	443.7
80°	44.6	46.5	58.1	73.6	94.9	125.9	*166.6*	168.6	207.3	250.0	281.0
82.5°	23.3	25.2	31.0	38.8	50.4	65.9	*93.0*	93.0	124.0	147.3	166.6
85°	7.8	7.8	11.6	15.5	21.3	27.1	*36.8*	36.8	54.3	71.7	83.3
87.5°	0.0	0.0	0.0	0.0	1.9	3.9	*7.8*	7.8	9.7	11.6	19.4
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: P638969
CATALOG NUMBER: GWS-SA4F-830-U-SL3-W-GRSWH

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	8690.2	8690.2	8690.2	8690.2	8690.2	8690.2	8690.2	8690.2	8690.2	8690.2	8690.2
2.5°	8651.4	8591.3	8593.3	8604.9	8568.1	8511.9	8475.1	8428.6	8399.5	8393.7	8415.0
5°	8527.4	8457.7	8409.2	8358.8	8254.2	8130.2	8033.3	7953.9	7901.6	7882.2	7858.9
7.5°	8356.9	8265.8	8143.8	8002.3	7812.4	7591.5	7436.5	7291.2	7190.5	7161.4	7147.8
10°	8186.4	8054.6	7837.6	7574.1	7258.3	6959.9	6678.9	6463.9	6293.3	6196.5	6227.5
12.5°	8010.1	7847.3	7508.2	7103.3	6663.4	6213.9	5845.8	5489.2	5214.1	5076.5	5035.8
15°	7855.1	7634.2	7161.4	6613.1	6027.9	5462.1	4929.3	4394.5	4045.7	3855.8	3803.5
17.5°	7723.3	7436.5	6795.2	6113.2	5413.7	4607.6	3952.7	3456.7	3218.4	3113.7	3106.0
20°	7593.5	7242.8	6432.9	5574.5	4704.5	3801.6	3216.4	2983.9	2898.7	2861.8	2859.9
22.5°	7477.2	7039.3	6051.1	5035.8	3999.2	3195.1	2873.5	2772.7	2749.5	2749.5	2745.6
25°	7378.4	6835.9	5659.7	4464.2	3361.7	2844.4	2695.2	2652.6	2662.3	2679.7	2681.6
27.5°	7337.7	6677.0	5281.9	3877.2	2921.9	2641.0	2573.1	2567.3	2594.5	2621.6	2625.5
30°	7380.3	6568.5	4894.4	3315.2	2658.4	2517.0	2485.9	2497.6	2530.5	2557.6	2557.6
32.5°	7512.1	6514.2	4499.1	2904.5	2505.3	2429.8	2420.1	2431.7	2456.9	2472.4	2474.3
35°	7734.9	6535.5	4090.3	2627.4	2406.5	2365.8	2363.9	2371.6	2381.3	2391.0	2392.9
37.5°	8015.9	6630.5	3652.4	2466.6	2342.6	2319.3	2315.4	2313.5	2315.4	2315.4	2317.4
40°	8291.0	6773.9	3261.0	2371.6	2298.0	2278.6	2268.9	2255.4	2253.4	2249.6	2247.6
42.5°	8494.5	6884.3	2949.0	2303.8	2257.3	2234.1	2222.4	2201.1	2199.2	2197.2	2195.3
45°	8647.5	6977.3	2689.4	2237.9	2214.7	2193.4	2168.2	2148.8	2152.7	2156.6	2156.6
47.5°	8820.0	7058.7	2499.5	2175.9	2162.4	2141.1	2110.1	2096.5	2110.1	2123.6	2123.6
50°	9029.2	7173.0	2344.5	2113.9	2108.1	2082.9	2055.8	2050.0	2065.5	2084.9	2084.9
52.5°	9182.3	7271.8	2234.1	2051.9	2051.9	2019.0	1995.7	1993.8	2011.2	2030.6	2032.5
55°	9469.1	7502.4	2195.3	1980.2	1972.5	1947.3	1929.9	1916.3	1937.6	1955.0	1955.0
57.5°	*9792.7*	*7808.6*	*2205.0*	*1877.5*	*1867.9*	*1860.1*	*1846.5*	*1831.0*	*1836.9*	*1856.2*	*1858.2*
60°	9106.8	7215.6	2098.4	1774.8	1769.0	1765.2	1747.7	1720.6	1728.3	1743.8	1745.8
62.5°	6361.2	4795.6	1697.3	1647.0	1666.3	1664.4	1641.2	1610.2	1612.1	1633.4	1633.4
65°	3301.7	2594.5	1490.0	1530.7	1559.8	1548.1	1509.4	1482.3	1478.4	1505.5	1499.7
67.5°	1424.1	1416.4	1356.3	1408.6	1439.6	1414.5	1373.8	1329.2	1333.1	1342.8	1335.0
70°	1147.1	1181.9	1207.1	1263.3	1288.5	1242.0	1197.4	1172.3	1150.9	1149.0	1135.4
72.5°	916.5	964.9	1021.1	1079.2	1087.0	1040.5	984.3	961.1	928.1	926.2	912.6
75°	689.8	730.5	775.0	821.5	821.5	777.0	740.2	728.5	689.8	678.2	666.5
77.5°	470.8	496.0	530.9	542.5	554.2	536.7	499.9	480.5	436.0	424.3	408.8
80°	296.5	313.9	335.2	343.0	354.6	333.3	304.2	282.9	251.9	242.2	234.5
82.5°	178.3	189.9	203.4	207.3	217.0	201.5	174.4	158.9	141.4	133.7	127.9
85°	91.1	96.9	104.6	106.6	104.6	89.1	79.4	71.7	60.1	58.1	54.3
87.5°	23.3	27.1	29.1	27.1	25.2	19.4	13.6	9.7	3.9	3.9	1.9
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

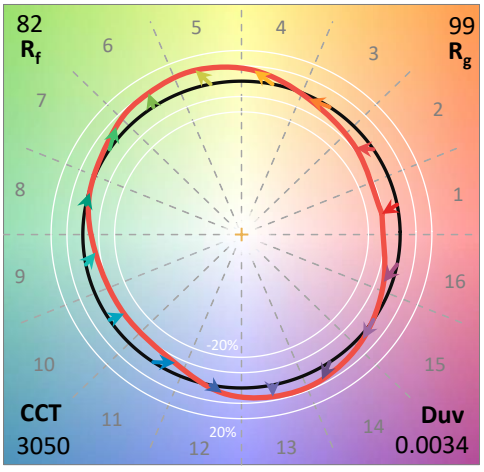
Test Information

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

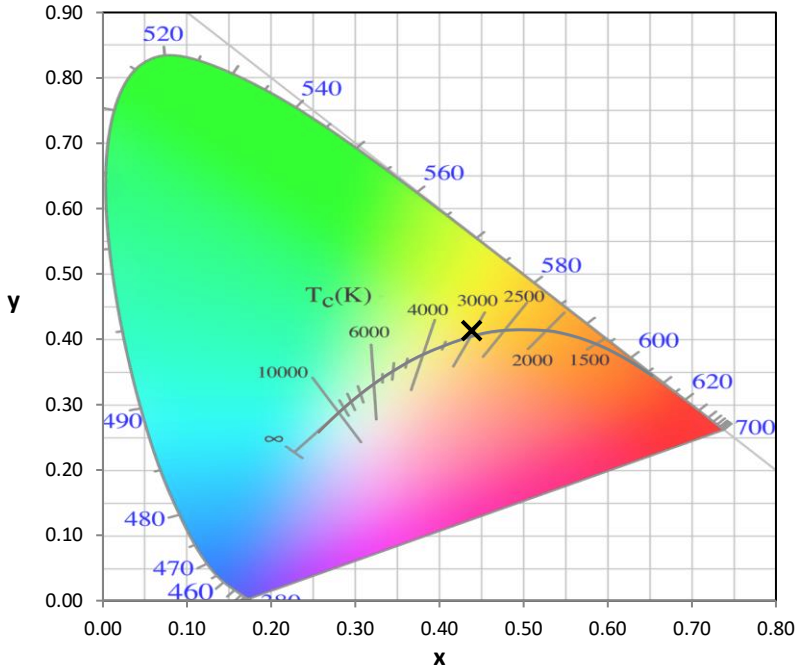
Stabilization Time:	20M
Operation Time:	1H 20M
Sphere Temperature (°C):	24.2

REPORT NUMBER: SP1-2408-195-9

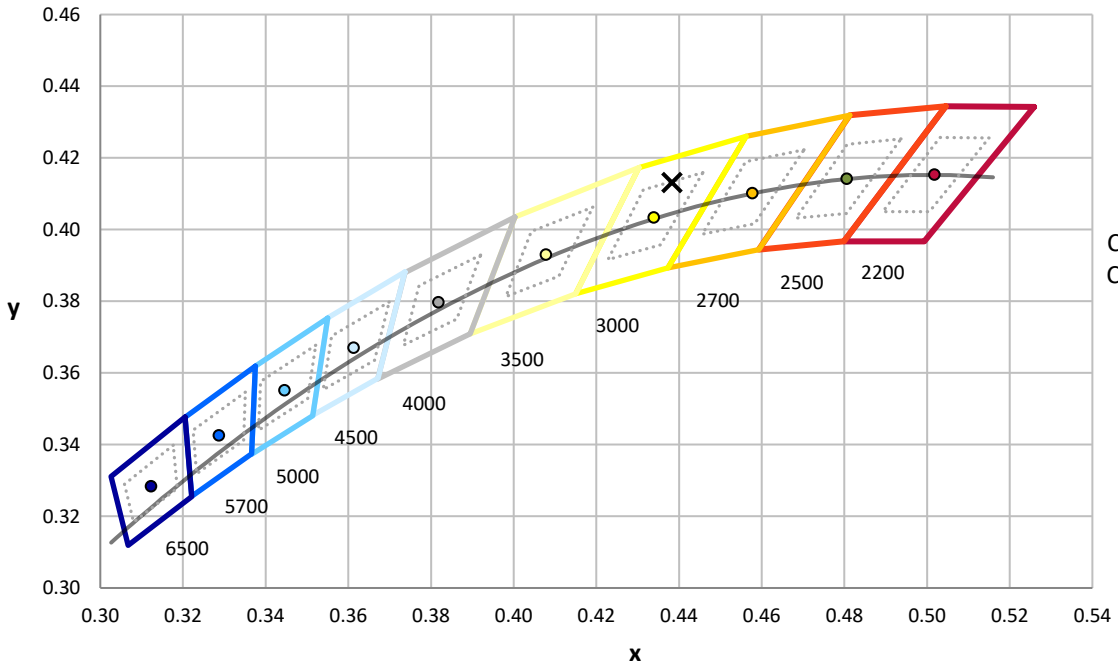
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

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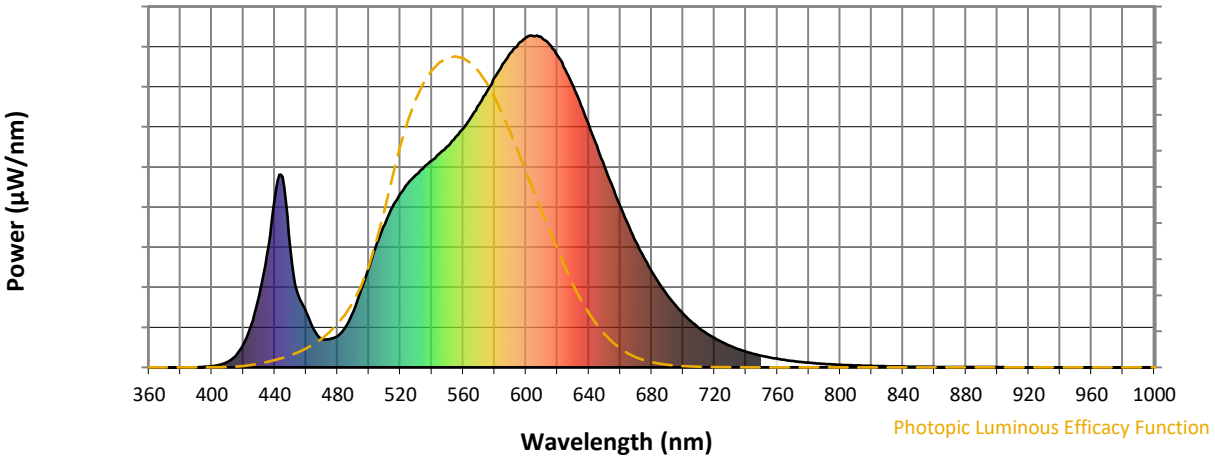
Photopic Flux vs. Wavelength



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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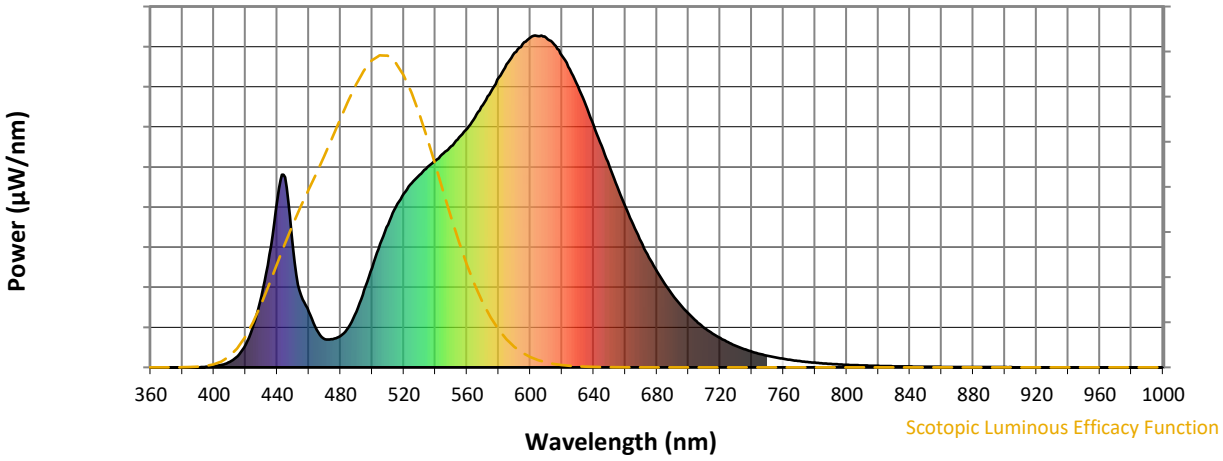
Scotopic Flux vs. Wavelength



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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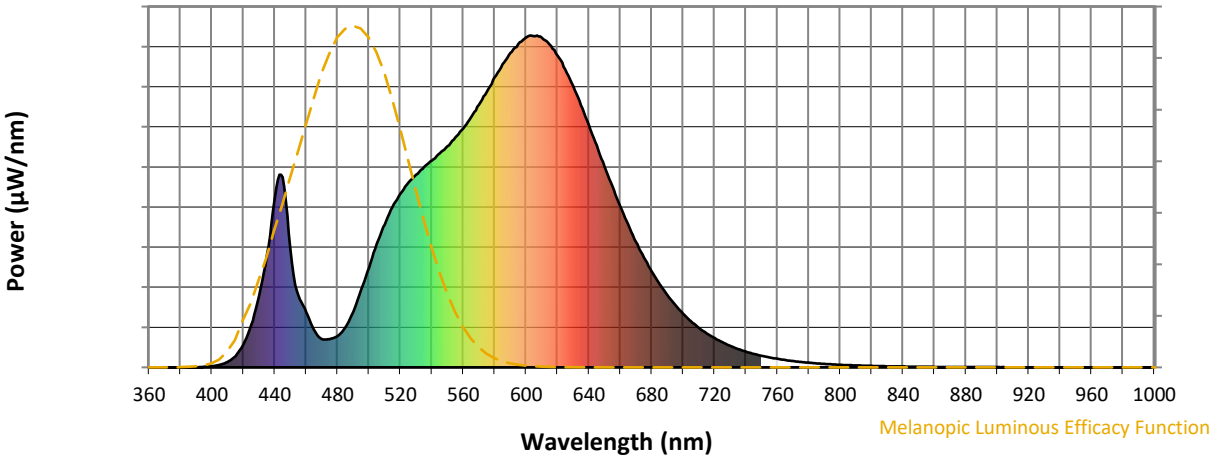
Melanopic Flux vs. Wavelength



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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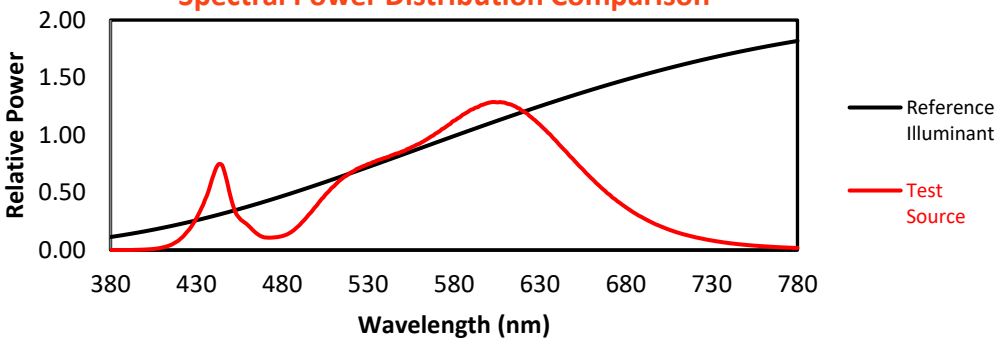
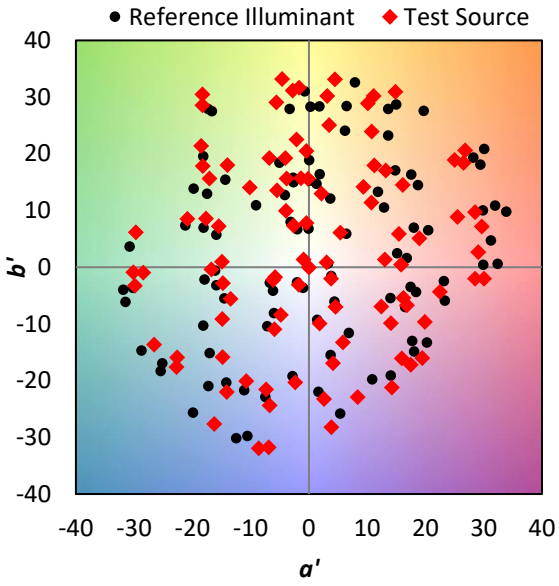
Summary

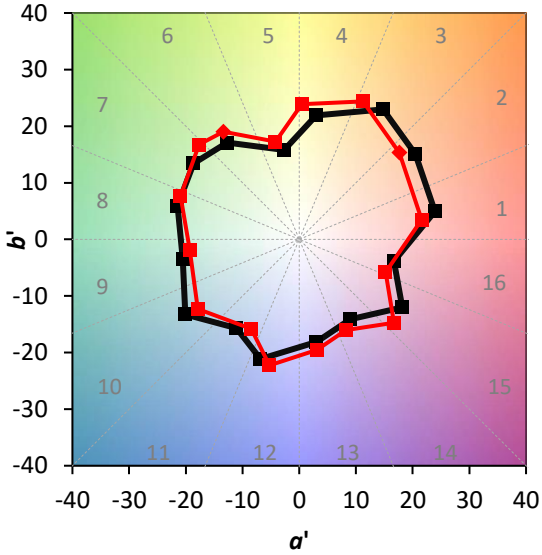
R_f = 81.5
R_g = 99.2
CIE R_a = 81.0
R_9 = 7.1

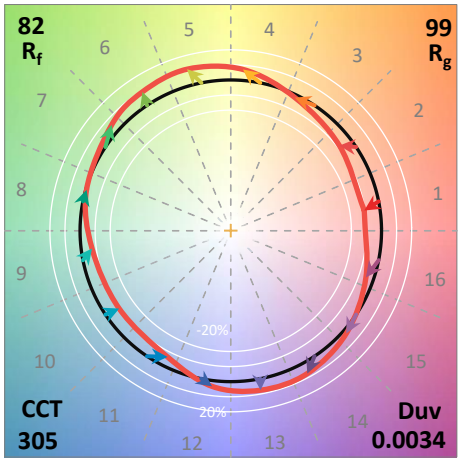
Spectral Power Distribution Comparison

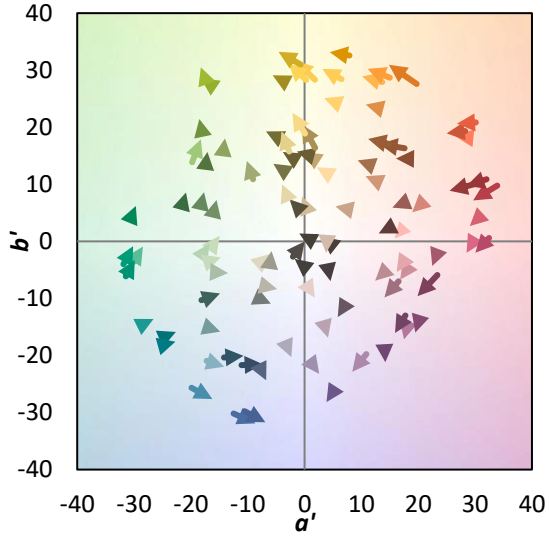


Color Vector Graphics









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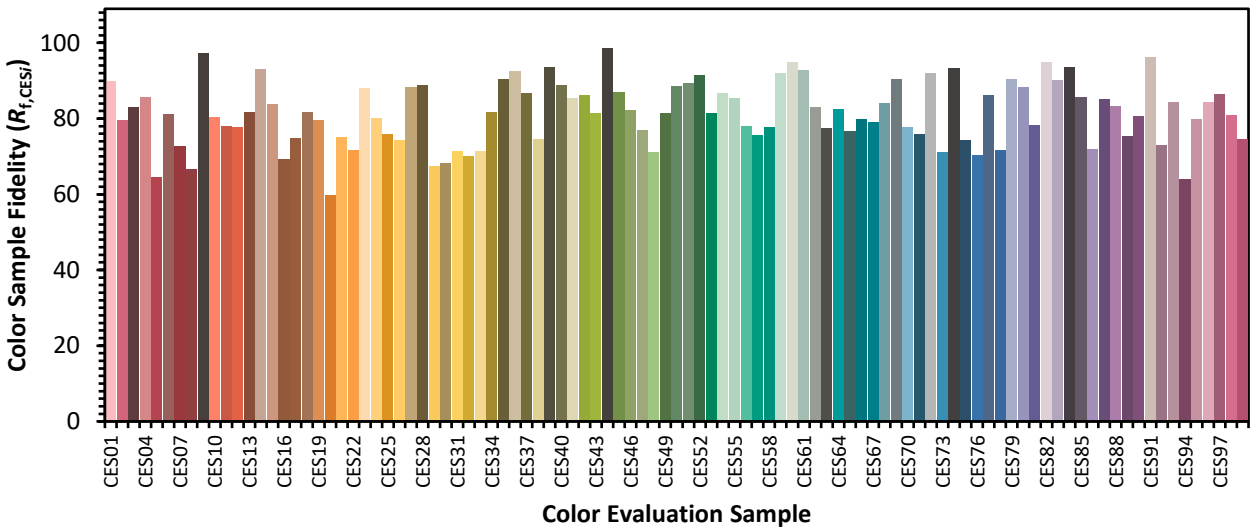
Individual Sample Fidelity Index ($R_{f,i}$)

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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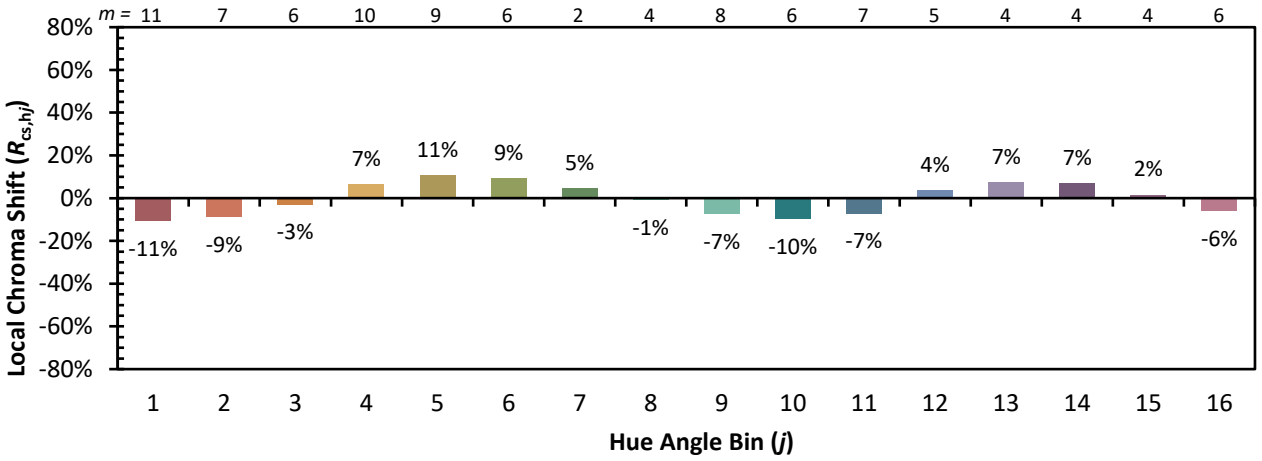
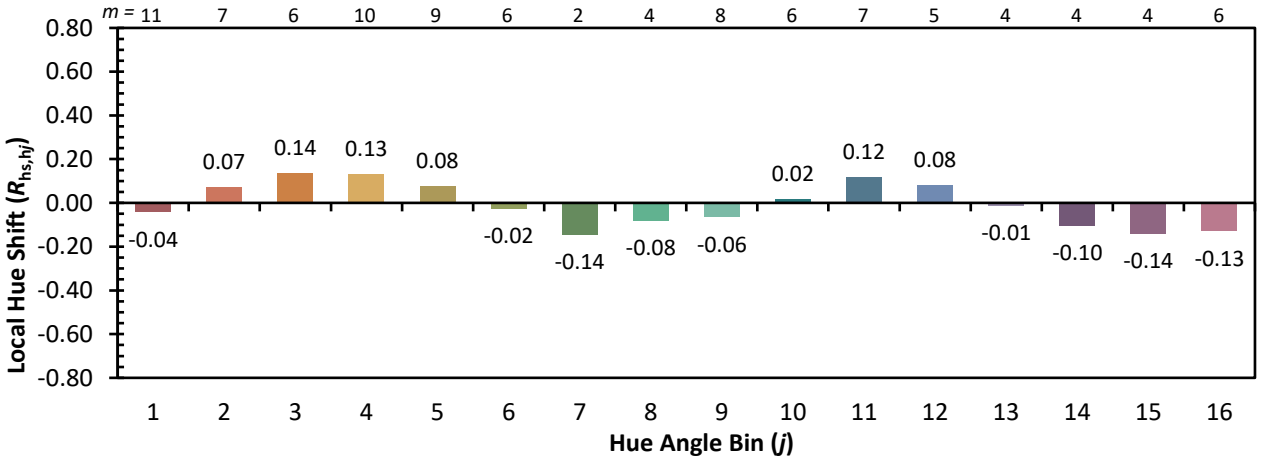
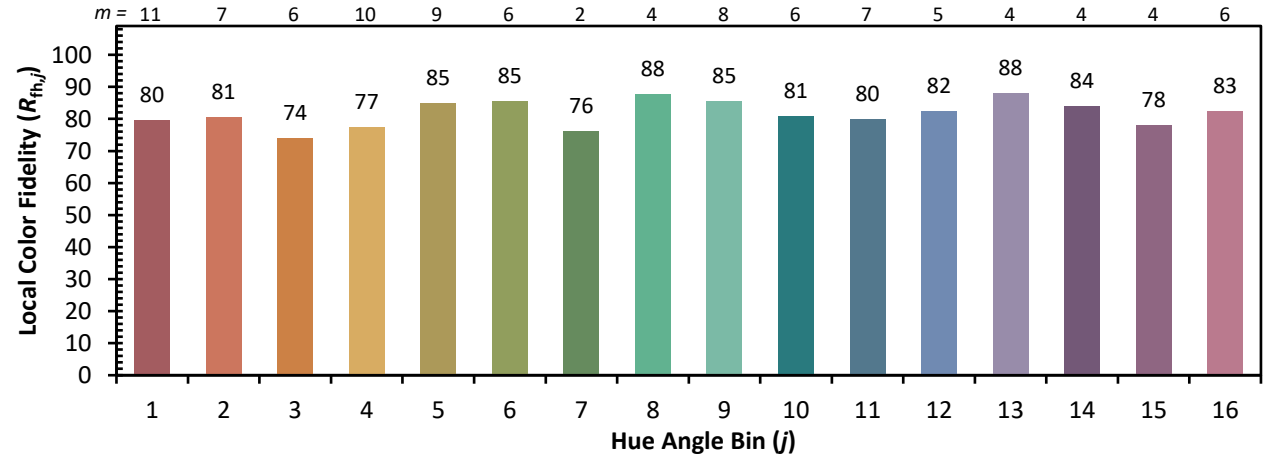
Color Rendition by Hue-Angle Bin







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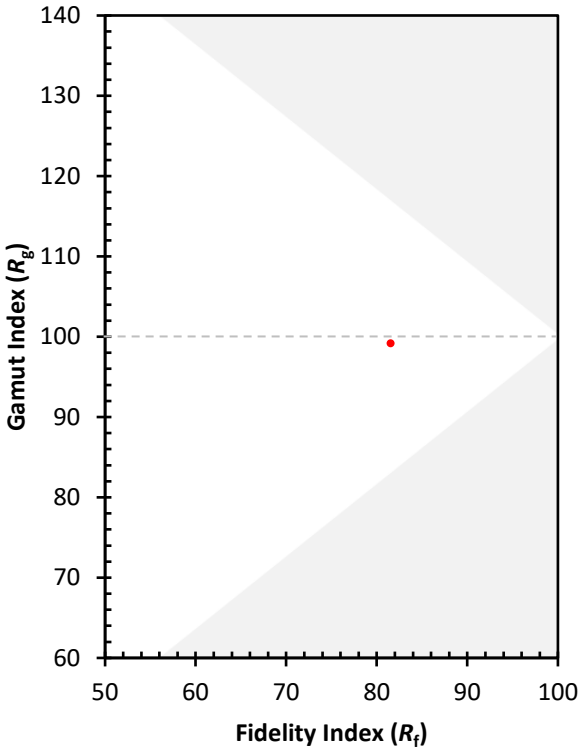
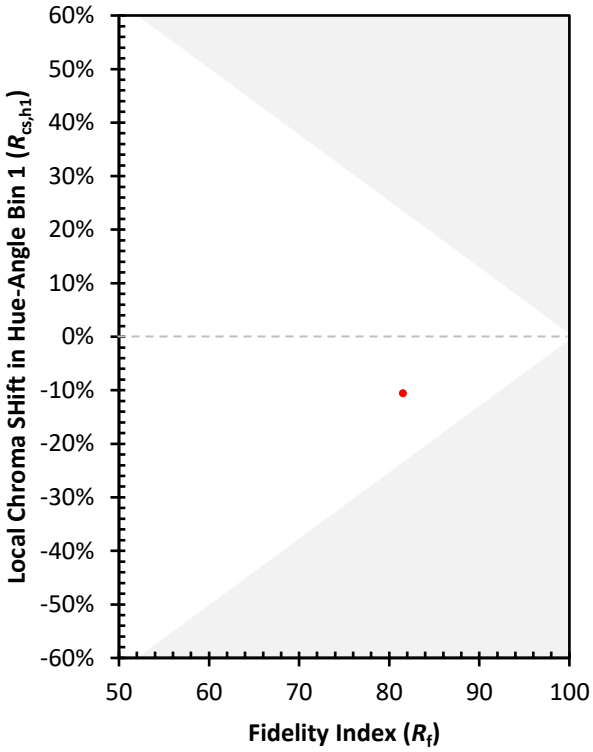
Measure Comparisons





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