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: P637013

Luminaire Tested: GWS-SA4B-830-U-T3-W-HSS

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:	P637013
	TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-26)
Test Lab:	COOPER LIGHTING SOLUTIONS
Issue Date:	1/10/2023
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	McGRAW-EDISON
Catalog Number:	GWS-SA4B-830-U-T3-W-HSS
Description:	GALLEON WALL SLIM LUMINAIRE. (4) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III OPTICS WITH HOUSE SIDE SHIELD
Light Source:	(64) 3000K CCT, 80 CRI LEDS
Ballast/Driver:	-

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	8441.4 lumens
Efficiency:	N/A
Efficacy:	89.4 lumens/watt
Luminous Opening:	Rectangular (W 1' x L: 1' x H: 0')
IES Classification:	Type III - Short
BUG Rating:	B1 - U0 - G2

Input Watts (W):	94.4
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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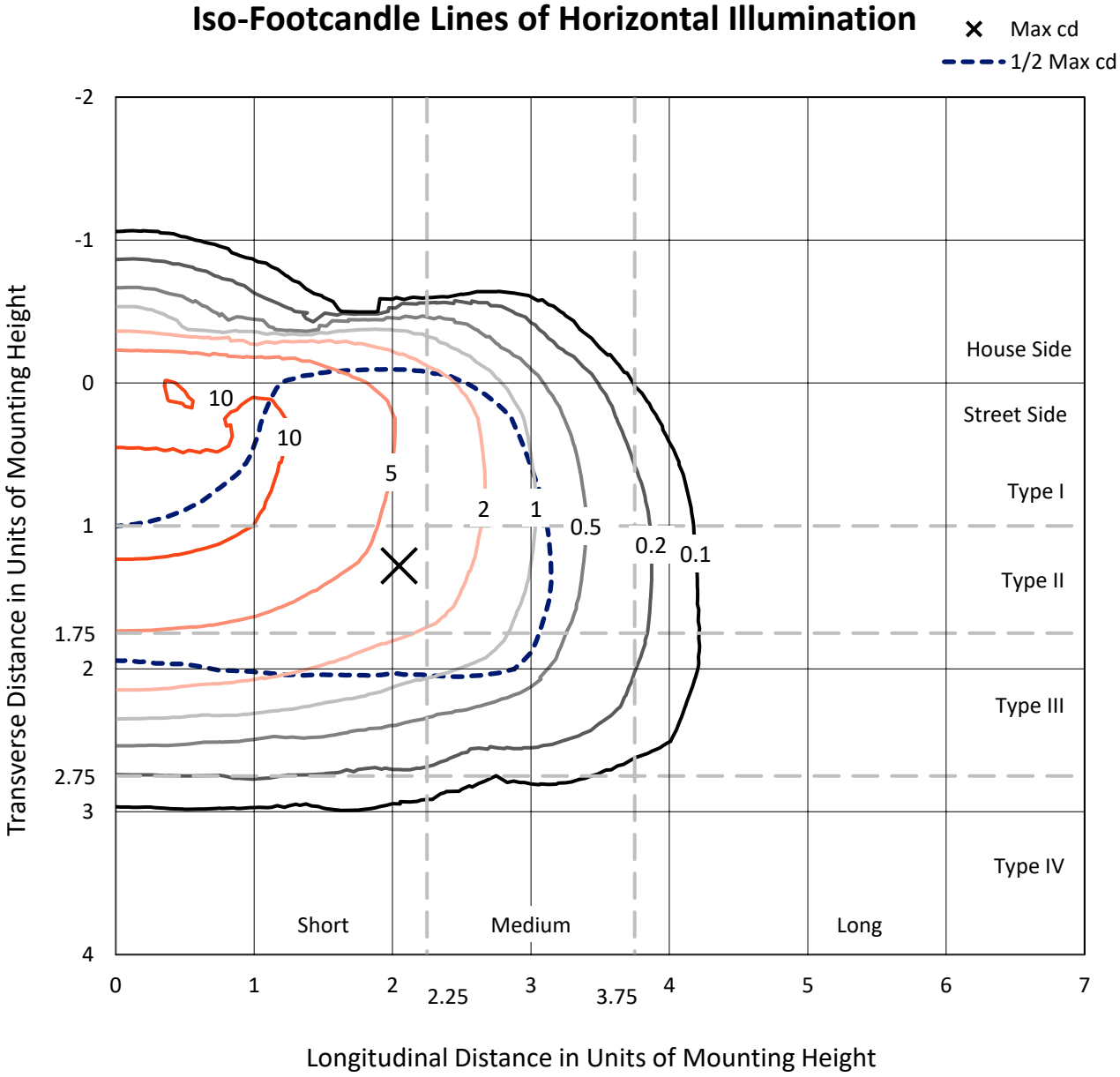
REPORT NUMBER: P637013
CATALOG NUMBER: GWS-SA4B-830-U-T3-W-HSS

Iso-Footcandle Lines of Horizontal Illumination



Based on 10 foot mounting height. Maximum calculated value = 12.8 fc
Type III - Short - N/A

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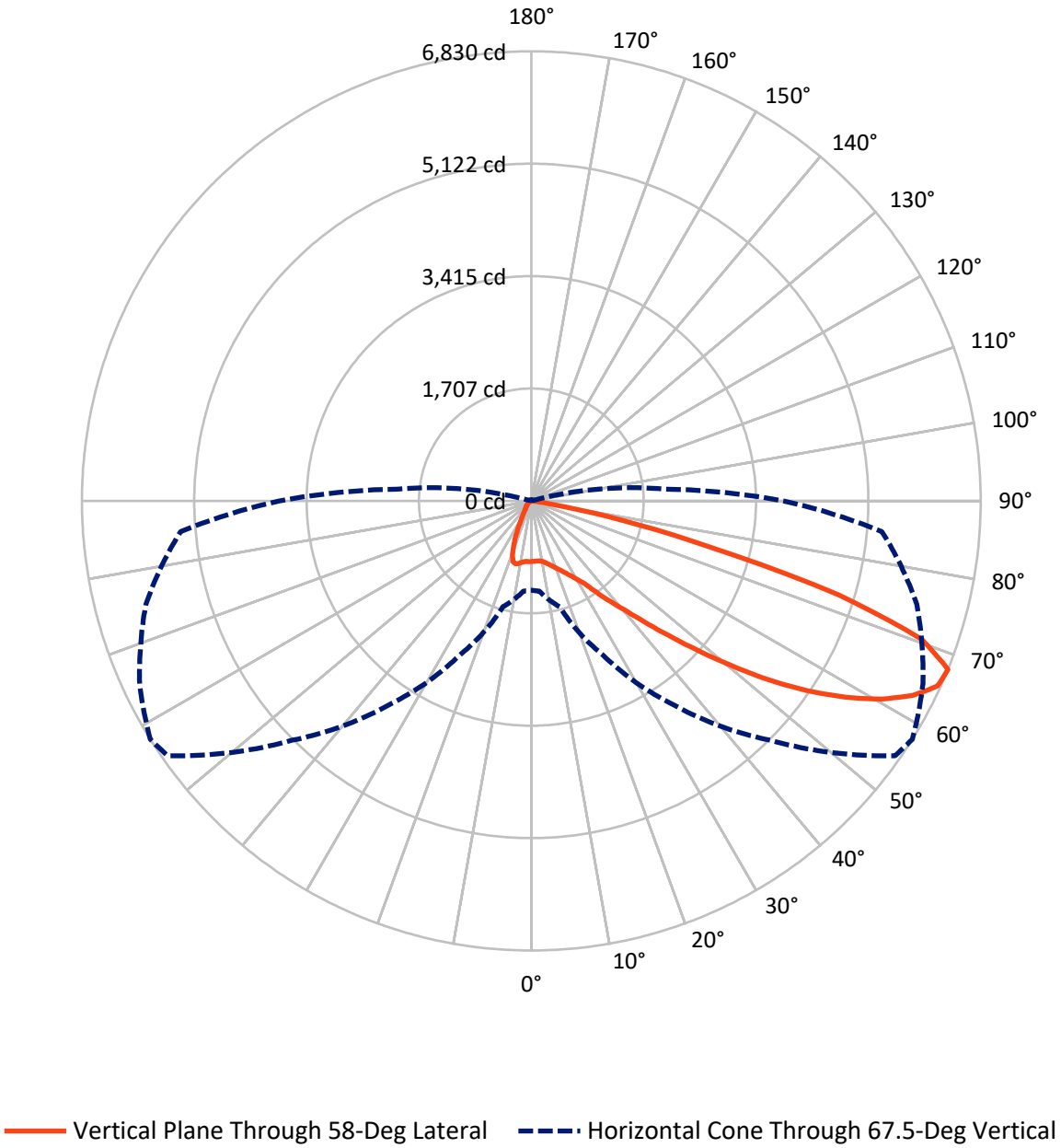
Luminous Intensity Polar Plot



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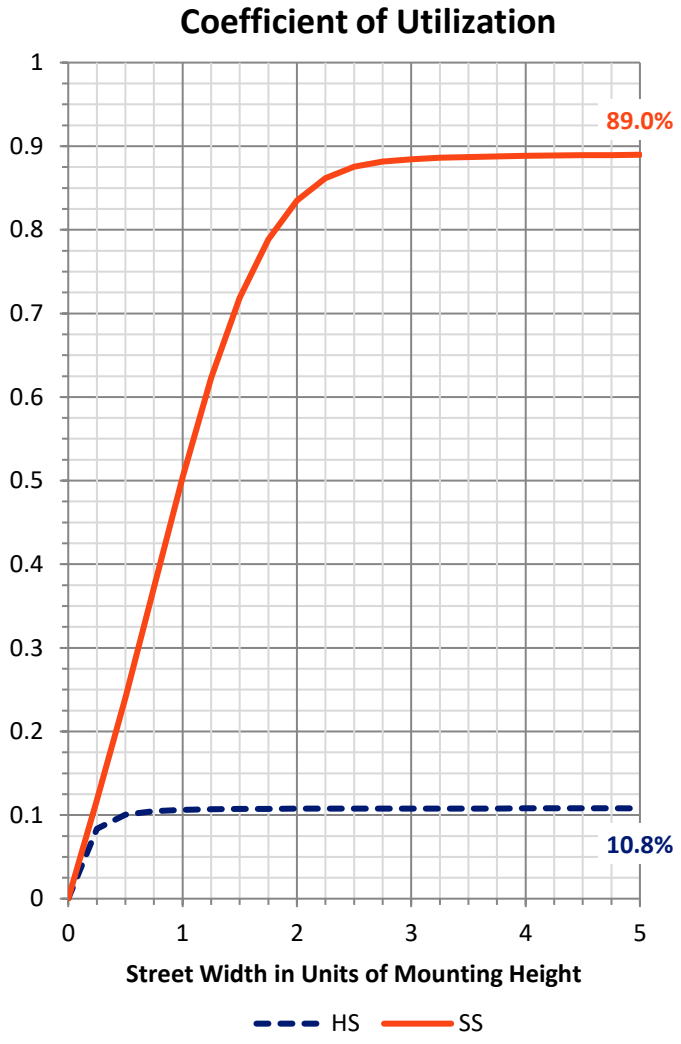
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	920.9	0.0	920.9
	% Fixture	10.9	0.0	10.9
Street Side	Lumens	7520.5	0.0	7520.5
	% Fixture	89.1	0.0	89.1
Total	Lumens	8441.4	0.0	8441.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	86.4	1.0
10°-20°	242.6	2.9
20°-30°	423.5	5.0
30°-40°	756.3	9.0
40°-50°	1382.4	16.4
50°-60°	2299.0	27.2
60°-70°	2497.1	29.6
70°-80°	733.2	8.7
80°-90°	20.9	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°	8441.4	100.0
0°-180°	8441.4	100.0



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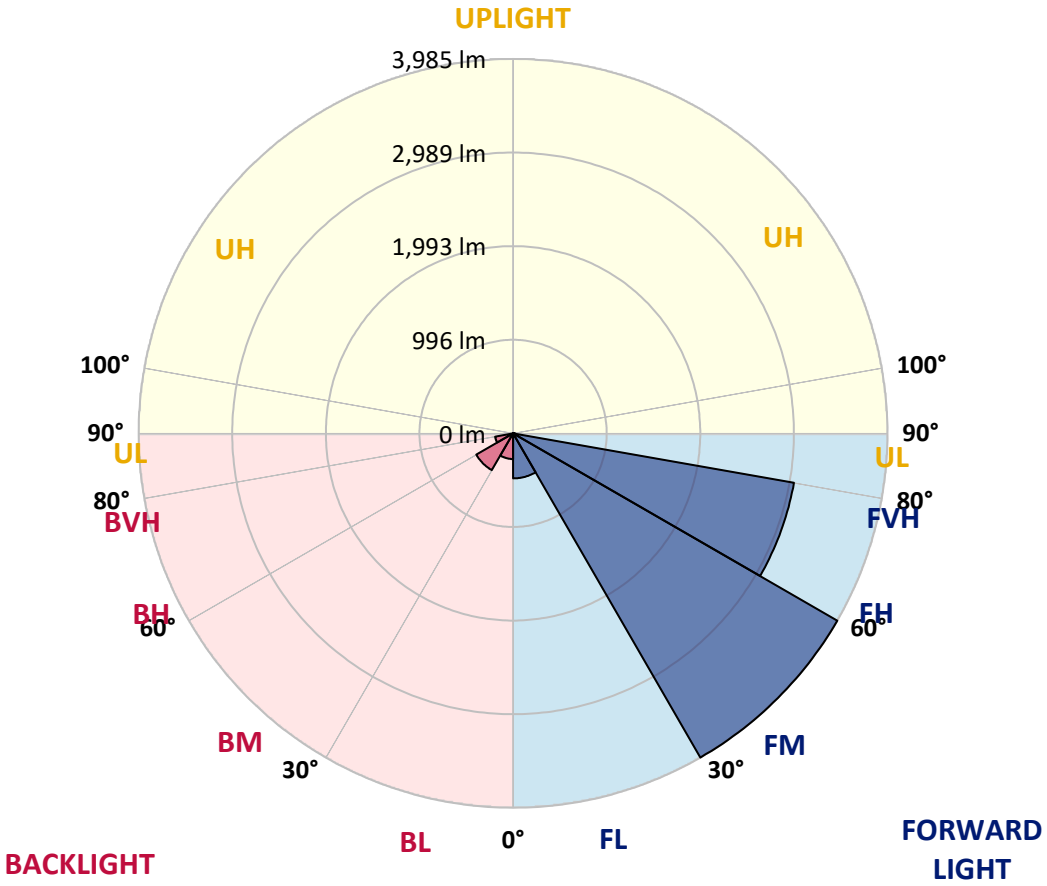
LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	479.3	5.7			
FM	(30°-60°)	3985.4	47.2			
FH	(60°-80°)	3035.9	36.0			G2/5000
FVH	(80°-90°)	19.9	0.2			G1/100
BL	(0°-30°)	273.2	3.2	B1/500		
BM	(30°-60°)	452.3	5.4	B1/1000		
BH	(60°-80°)	194.4	2.3	B1/500		G1/500
BVH	(80°-90°)	1.0	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2
Type III Short



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REPORT NUMBER: P637013
CATALOG NUMBER: GWS-SA4B-830-U-T3-W-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	58°	65°	75°	85°
0°	919.9	919.9	919.9	919.9	919.9	919.9	919.9	*919.9*	919.9	919.9	919.9
2.5°	902.6	900.9	900.9	907.5	908.3	911.6	919.0	*919.9*	924.0	922.3	916.6
5°	855.6	856.4	861.3	872.9	882.8	895.1	913.3	*917.4*	926.5	931.4	928.1
7.5°	811.9	812.7	820.1	838.3	857.2	881.9	911.6	*919.9*	938.0	951.2	952.0
10°	795.4	794.6	802.0	822.6	847.3	881.9	924.8	*935.5*	962.7	985.8	989.9
12.5°	800.3	799.5	806.9	825.9	853.1	896.8	947.9	*962.7*	997.3	1032.8	1040.2
15°	820.1	819.3	824.2	839.9	869.6	914.9	977.6	*999.8*	1043.5	1086.4	1097.9
17.5°	879.5	875.4	870.4	872.1	889.4	936.3	1015.5	*1042.7*	1097.1	1148.2	1158.1
20°	985.0	974.3	961.1	943.8	935.5	967.7	1059.2	*1090.5*	1156.4	1214.9	1216.6
22.5°	1144.1	1139.9	1109.4	1059.2	1023.7	1024.5	1110.3	*1146.5*	1227.3	1291.6	1282.5
25°	1365.8	1363.3	1316.3	1233.9	1141.6	1110.3	1175.4	*1212.5*	1311.4	1379.8	1350.9
27.5°	1641.1	1623.8	1568.5	1457.3	1319.6	1221.5	1257.8	*1290.8*	1400.4	1464.7	1410.3
30°	1880.9	1881.8	1829.8	1713.6	1558.7	1388.9	1358.4	*1387.2*	1482.0	1549.6	1483.6
32.5°	2111.7	2119.1	2062.3	1957.6	1787.8	1607.3	1502.6	*1507.5*	1586.7	1660.0	1580.1
35°	2326.0	2331.8	2292.2	2203.2	2045.0	1835.6	1703.7	*1701.2*	1744.1	1819.1	1714.4
37.5°	2565.9	2571.7	2532.9	2453.0	2304.6	2096.9	1932.0	*1928.7*	1946.0	2007.0	1887.5
40°	2821.4	2832.1	2789.3	2721.7	2579.9	2404.3	2197.4	*2167.8*	2150.5	2222.2	2111.7
42.5°	3080.2	3096.7	3081.9	3014.3	2893.1	2748.0	2542.0	*2495.8*	2458.7	2548.6	2431.5
45°	3401.7	3421.5	3414.9	3362.9	3269.0	3151.1	2956.6	*2903.0*	2885.7	2968.9	2829.6
47.5°	3710.8	3732.2	3756.1	3744.6	3677.8	3623.4	3407.4	*3376.9*	3372.0	3461.0	3245.1
50°	3940.7	3960.5	4052.0	4117.9	4163.3	4151.7	3964.6	*3919.3*	3911.9	3968.8	3683.6
52.5°	4105.6	4124.5	4250.6	4456.7	4623.2	4713.9	4525.1	*4515.2*	4474.8	4455.1	4094.0
55°	4233.3	4259.7	4392.4	4704.0	5039.5	5240.6	5122.7	*5087.3*	4983.4	4869.7	4474.8
57.5°	4258.9	4269.6	4456.7	4877.1	5362.6	5688.1	5688.1	*5626.3*	5426.0	5268.6	4915.0
60°	4029.7	4062.7	4315.8	4863.1	5501.0	5980.7	6157.1	*6114.3*	5843.9	5650.2	5338.7
62.5°	3521.2	3558.3	3866.5	4527.6	5362.6	6040.9	6512.4	*6505.8*	6200.8	5965.9	5689.8
65°	2700.2	2727.4	2996.1	3787.4	4777.3	5809.3	6766.2	*6784.4*	6482.7	6174.4	5810.9
67.5°	*1356.7*	*1375.7*	*1665.8*	*2587.3*	*3786.6*	*5142.5*	*6748.9*	*6829.7*	*6568.4*	*6064.0*	*5348.5*
70°	473.9	492.9	629.7	1110.3	2304.6	3926.7	6165.4	*6297.3*	6064.8	5176.3	3945.7
72.5°	162.4	171.4	261.3	412.1	896.8	2327.7	4688.3	*4887.0*	4470.7	3475.0	2267.5
75°	92.3	98.1	140.1	223.4	375.9	765.7	2659.8	*2781.8*	2606.3	1894.1	933.0
77.5°	62.6	67.6	87.4	126.9	207.7	246.5	1084.7	*1365.8*	1191.0	618.2	238.2
80°	37.1	40.4	53.6	75.0	106.3	95.6	232.4	*309.1*	398.1	184.6	71.7
82.5°	17.3	19.8	34.6	49.5	53.6	40.4	68.4	*83.2*	112.1	90.7	29.7
85°	0.0	0.0	11.5	20.6	19.8	11.5	19.0	*20.6*	30.5	45.3	11.5
87.5°	0.0	0.0	0.0	0.0	0.0	0.8	1.6	*2.5*	4.9	9.1	4.9
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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REPORT NUMBER: P637013
CATALOG NUMBER: GWS-SA4B-830-U-T3-W-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	919.9	919.9	919.9	919.9	919.9	919.9	919.9	919.9	919.9	919.9	919.9
2.5°	923.2	917.4	924.0	920.7	924.0	923.2	916.6	912.4	912.4	905.0	902.6
5°	934.7	928.9	930.6	923.2	921.5	917.4	909.1	905.8	905.8	898.4	896.0
7.5°	960.2	951.2	949.5	934.7	928.1	916.6	901.7	896.0	895.1	887.7	885.2
10°	1000.6	989.9	982.5	963.5	944.6	921.5	890.2	863.8	849.0	829.2	827.5
12.5°	1050.1	1036.9	1025.4	996.5	965.2	913.3	821.0	724.5	665.2	618.2	621.5
15°	1105.3	1093.0	1074.8	1031.1	966.8	831.7	638.8	490.4	417.9	379.2	377.5
17.5°	1165.5	1147.4	1117.7	1058.3	914.9	635.5	415.4	293.4	255.5	242.3	239.0
20°	1221.5	1199.3	1162.2	1064.1	764.9	430.3	259.6	227.5	220.9	216.8	216.8
22.5°	1280.9	1252.9	1197.6	1019.6	568.7	275.3	220.9	213.5	208.5	202.8	201.9
25°	1341.1	1304.8	1229.8	903.4	372.6	216.8	206.9	198.6	189.6	180.5	178.0
27.5°	1392.2	1345.2	1254.5	730.3	239.0	195.3	188.8	174.7	162.4	152.5	150.8
30°	1453.1	1393.0	1265.2	534.1	187.9	172.3	162.4	147.5	132.7	122.8	119.5
32.5°	1534.7	1468.8	1248.7	347.8	166.5	151.7	136.0	118.7	103.9	93.1	91.5
35°	1661.7	1583.4	1172.9	221.7	150.8	131.1	112.1	94.0	81.6	73.4	71.7
37.5°	1816.6	1744.1	1048.4	166.5	135.2	113.7	91.5	74.2	65.1	59.3	57.7
40°	2046.6	1945.2	894.3	145.9	119.5	96.4	75.0	61.0	54.4	49.5	47.8
42.5°	2345.0	2182.6	717.1	132.7	104.7	80.8	61.0	50.3	44.5	41.2	40.4
45°	2693.6	2414.2	530.0	119.5	90.7	66.8	50.3	41.2	37.1	34.6	33.8
47.5°	3050.5	2617.0	366.0	105.5	77.5	55.2	42.0	35.4	32.1	28.8	28.0
50°	3431.3	2788.4	249.7	91.5	65.9	45.3	36.3	32.1	28.0	25.6	24.7
52.5°	3710.8	2851.9	173.9	79.1	56.0	38.7	32.1	28.8	25.6	22.3	21.4
55°	3968.8	2850.2	131.9	66.8	47.8	33.8	28.8	25.6	22.3	19.8	19.0
57.5°	4225.9	2828.0	103.9	56.9	41.2	30.5	25.6	22.3	20.6	17.3	16.5
60°	4392.4	2743.9	80.8	47.8	35.4	26.4	22.3	19.8	17.3	14.8	14.0
62.5°	4480.6	2626.9	61.8	37.9	28.8	23.1	19.8	17.3	14.8	12.4	11.5
65°	4361.1	2419.2	48.6	29.7	22.3	19.8	16.5	14.0	11.5	9.1	8.2
67.5°	*3831.1*	*2040.0*	*37.9*	*23.9*	*17.3*	*14.8*	*14.0*	*11.5*	*8.2*	*6.6*	*5.8*
70°	2707.7	1397.1	29.7	18.1	13.2	11.5	10.7	9.1	6.6	4.9	4.1
72.5°	1486.1	704.7	21.4	13.2	9.9	9.1	8.2	7.4	5.8	4.1	4.1
75°	572.0	193.7	15.7	9.1	6.6	6.6	5.8	5.8	4.9	3.3	3.3
77.5°	149.2	57.7	9.9	5.8	4.1	4.1	4.1	3.3	3.3	2.5	2.5
80°	47.8	19.0	5.8	4.1	3.3	2.5	2.5	1.6	2.5	1.6	1.6
82.5°	15.7	6.6	3.3	3.3	2.5	1.6	1.6	0.8	0.8	0.0	0.0
85°	5.8	3.3	2.5	1.6	1.6	1.6	0.8	0.0	0.0	0.0	0.0
87.5°	3.3	1.6	1.6	1.6	1.6	0.8	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

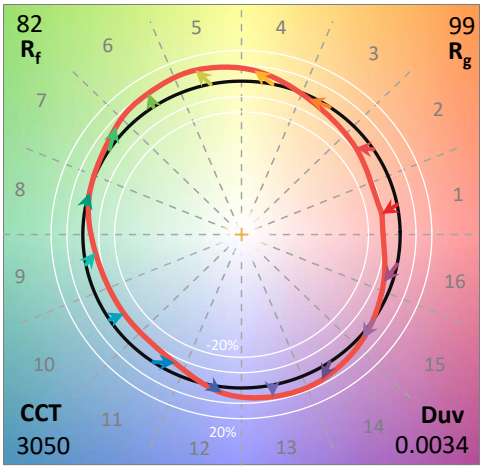
Test Information

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

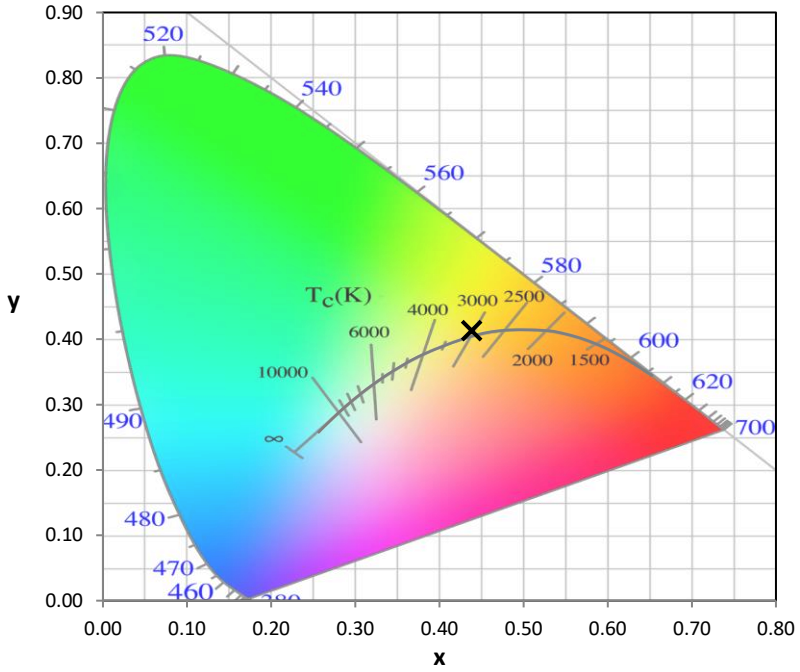
Stabilization Time:	20M
Operation Time:	1H 20M
Sphere Temperature (°C):	24.2

REPORT NUMBER: SP1-2408-195-9

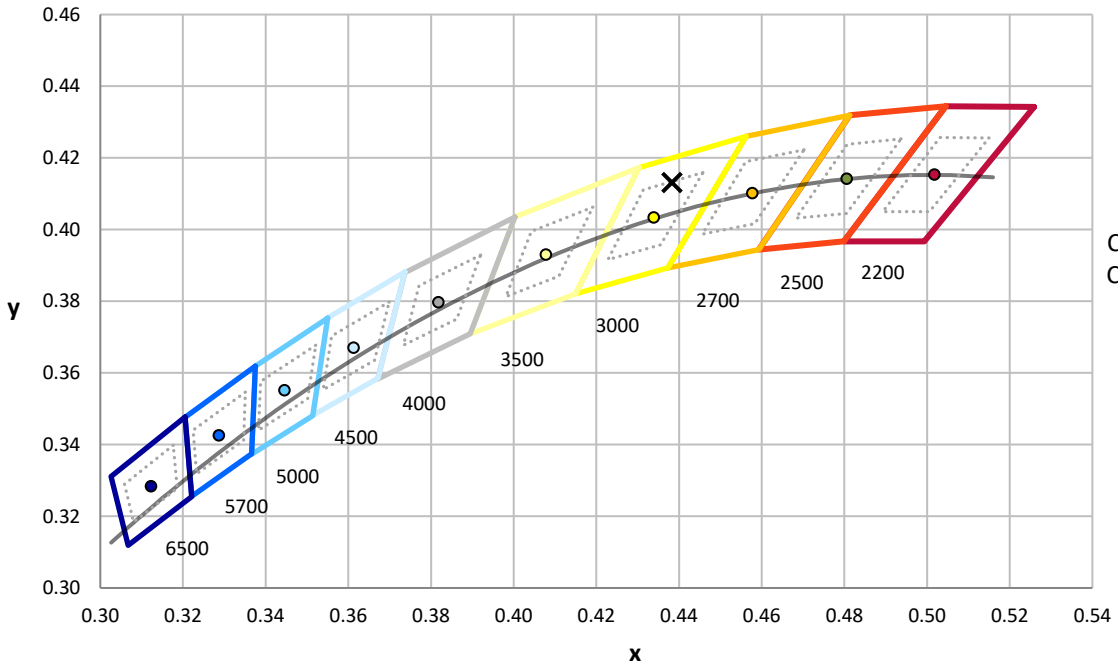
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

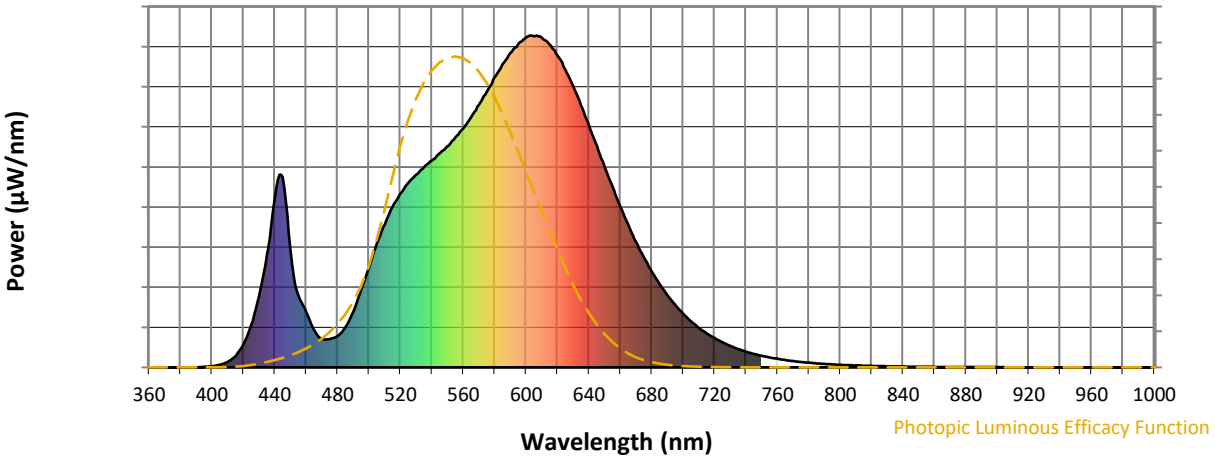


CCT = 3050K
CIE x = 0.4383
CIE y = 0.4131
Duv = 0.0034

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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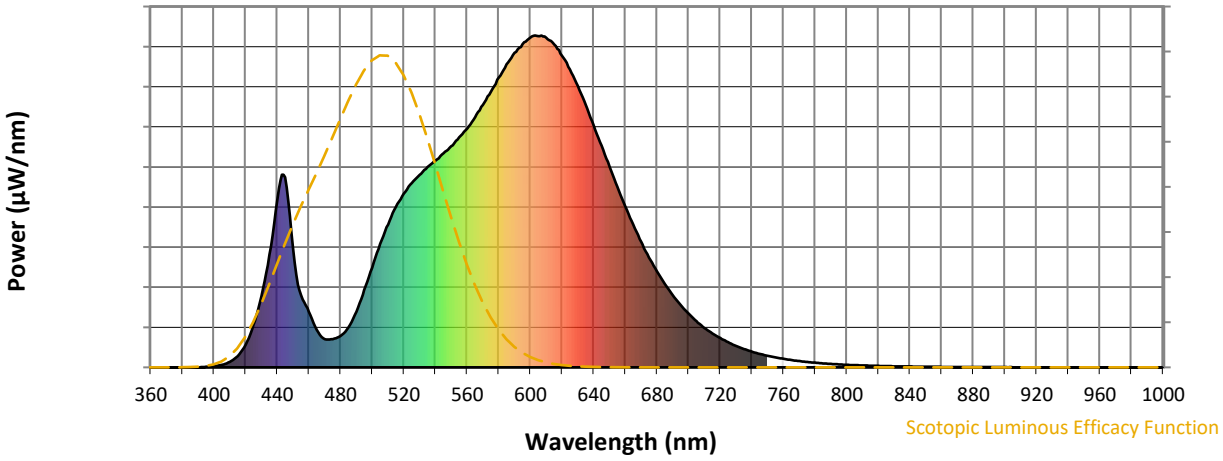
Scotopic Flux vs. Wavelength



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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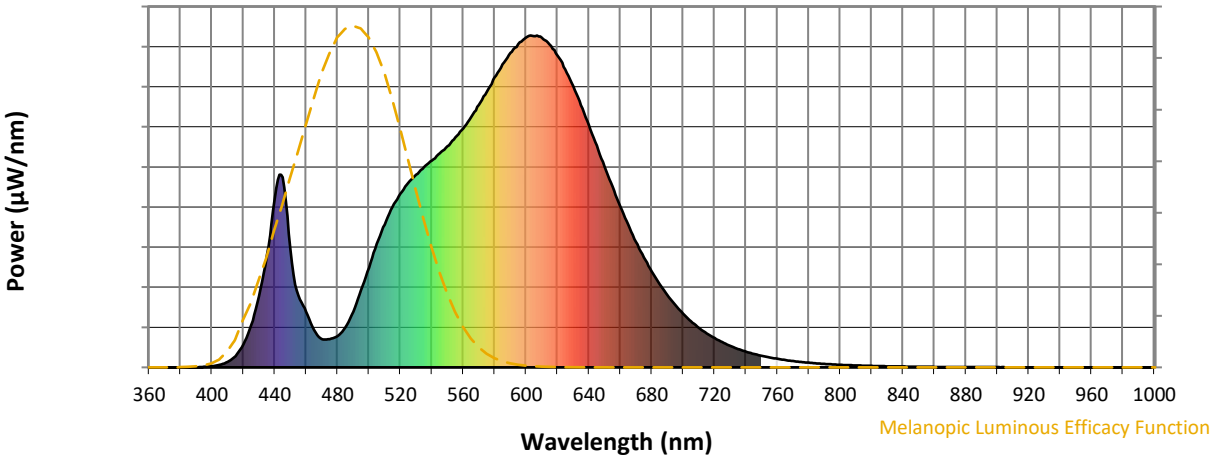
Melanopic Flux vs. Wavelength



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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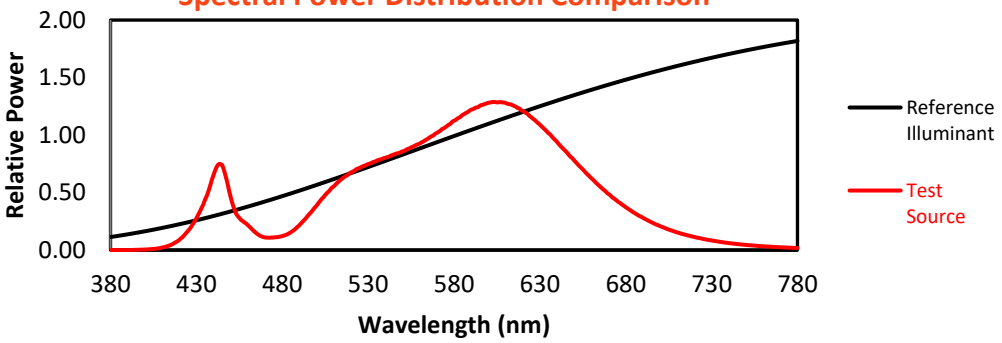
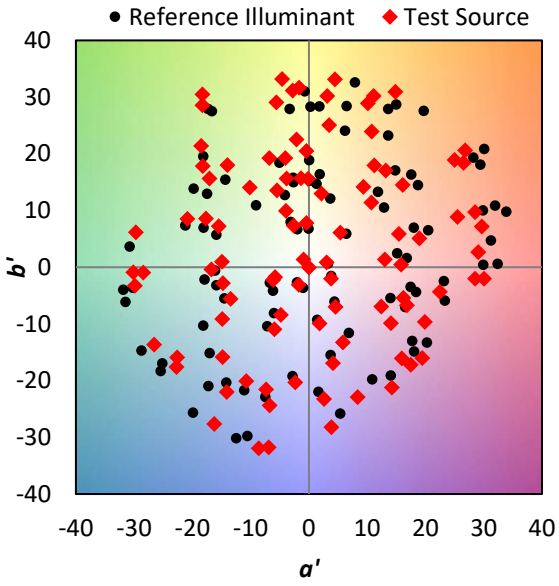
Summary

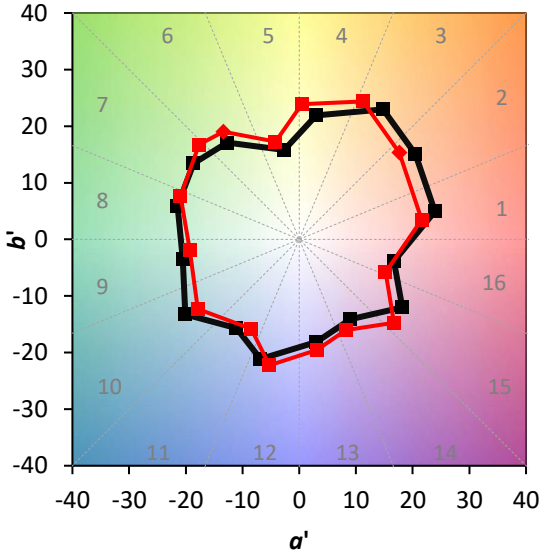
R_f = 81.5
R_g = 99.2
CIE R_a = 81.0
R_9 = 7.1

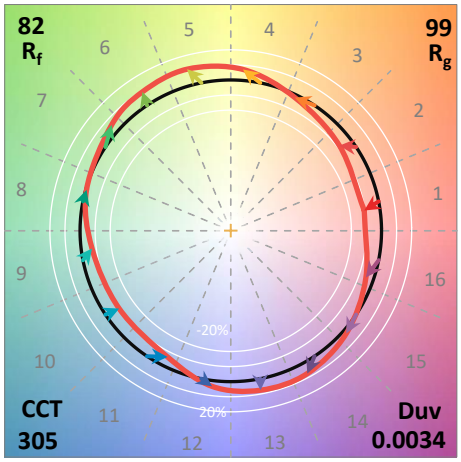
Spectral Power Distribution Comparison

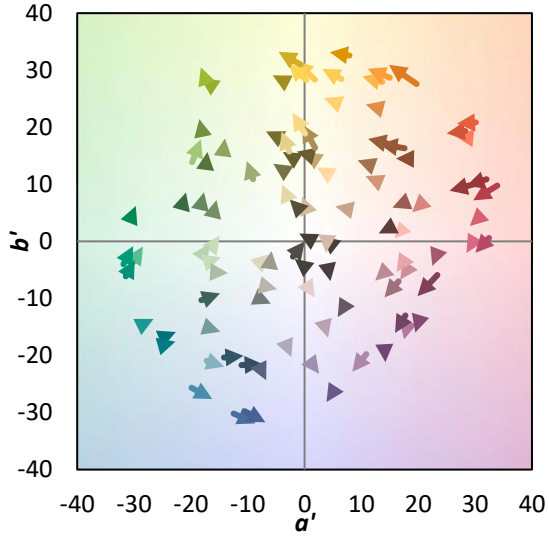


Color Vector Graphics









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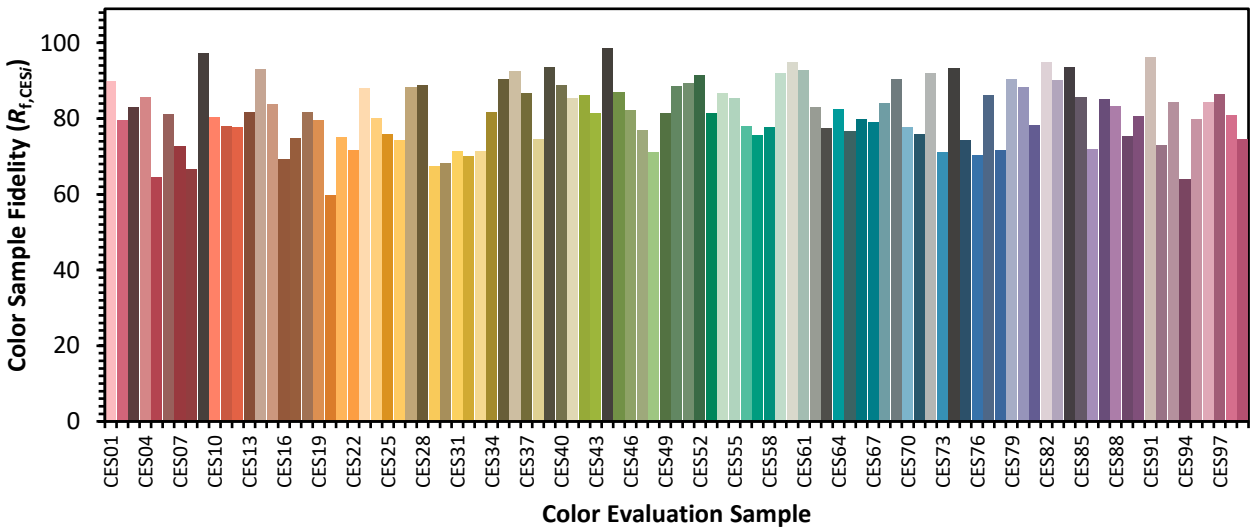
Individual Sample Fidelity Index ($R_{f,i}$)

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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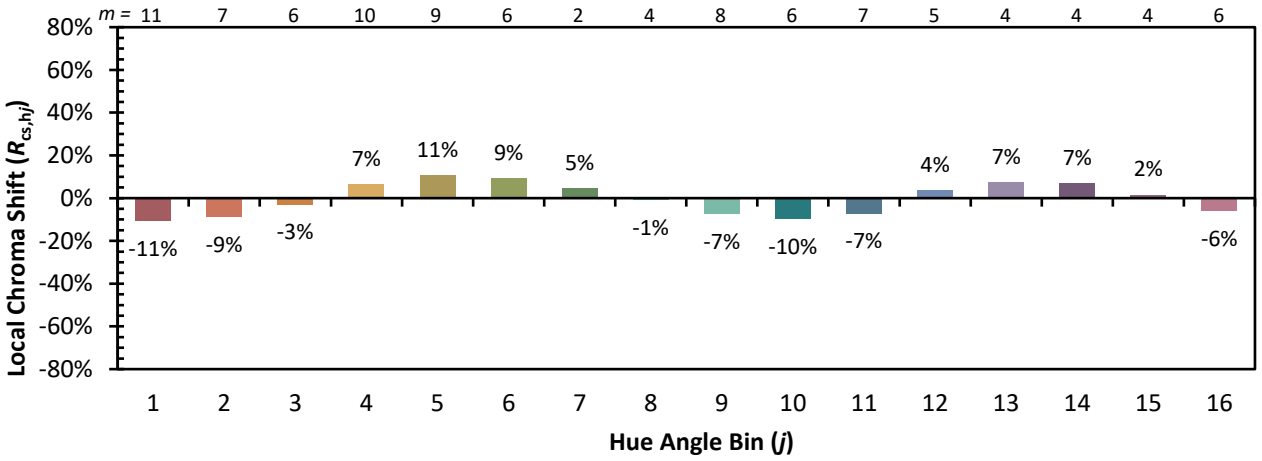
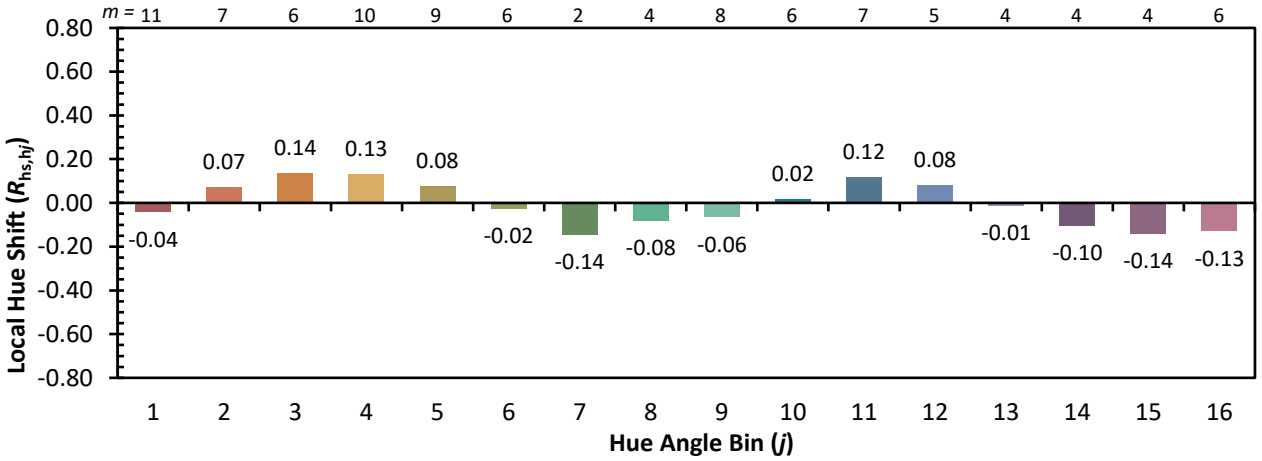
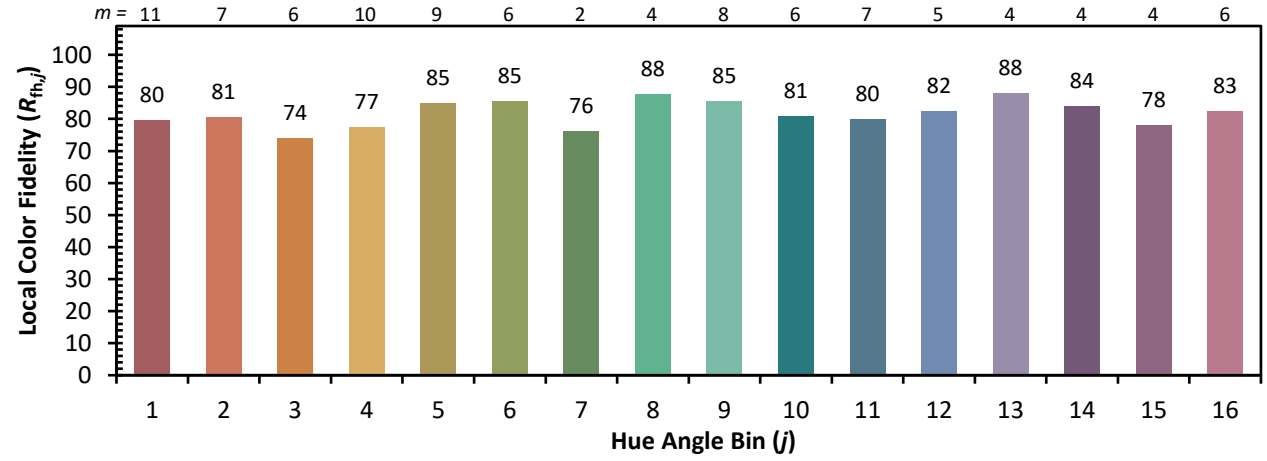
Color Rendition by Hue-Angle Bin







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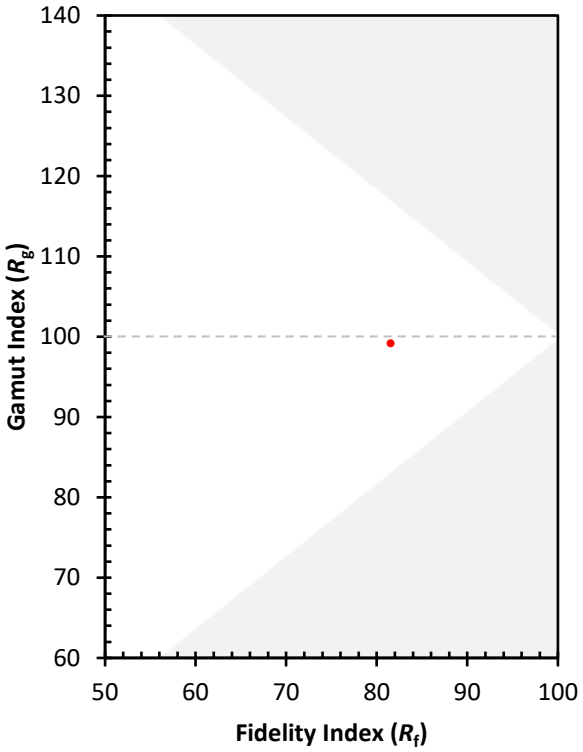
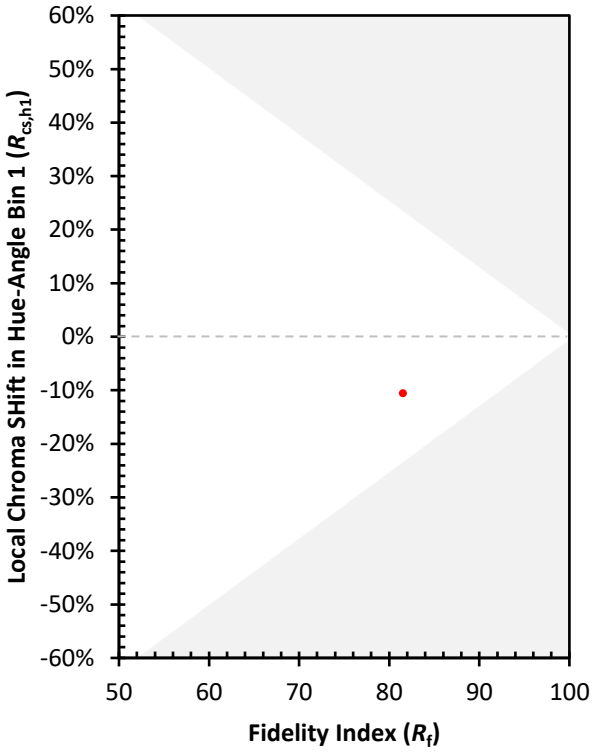
Measure Comparisons





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