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: P633043

Luminaire Tested: GWS-SA2D-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:	P633043
	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-SA2D-830-U-T2-W-GRSBK
Description:	GALLEON WALL SLIM LUMINAIRE. (2) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II OPTICS W/ FACTORY INSTALLED GLARE SHIELD, BK
Light Source:	(32) 3000K CCT, 80 CRI LEDS
Ballast/Driver:	-

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	5509.6 lumens
Efficiency:	N/A
Efficacy:	67.1 lumens/watt
Luminous Opening:	Rectangular (W 1' x L: 0.5' x H: 0')
IES Classification:	Type II - Short
BUG Rating:	B1 - U0 - G0

Input Watts (W):	82.1
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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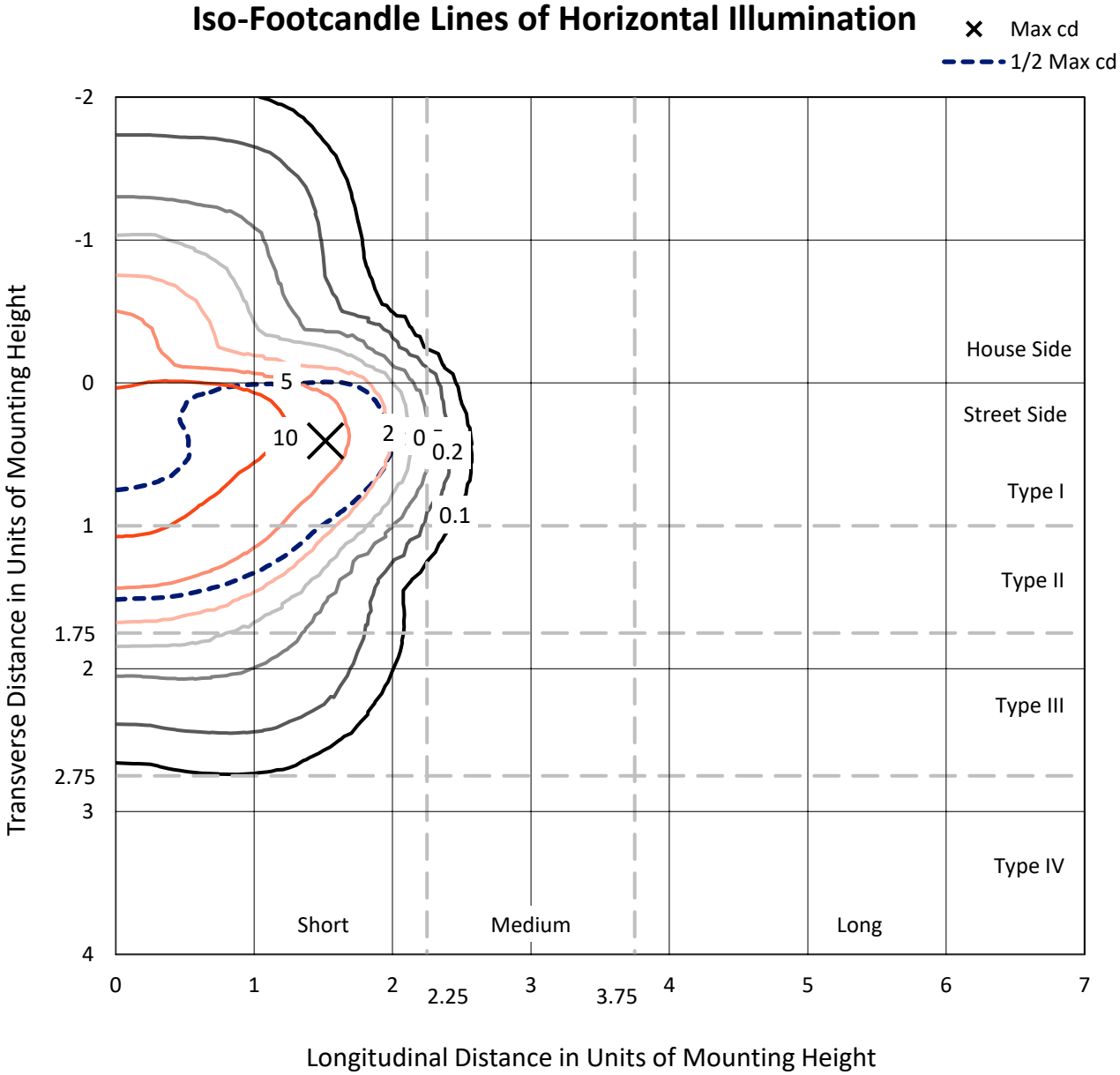
REPORT NUMBER: P633043
CATALOG NUMBER: GWS-SA2D-830-U-T2-W-GRSBK

Iso-Footcandle Lines of Horizontal Illumination



Based on 10 foot mounting height. Maximum calculated value = 17.2 fc
Type II - Short - N/A

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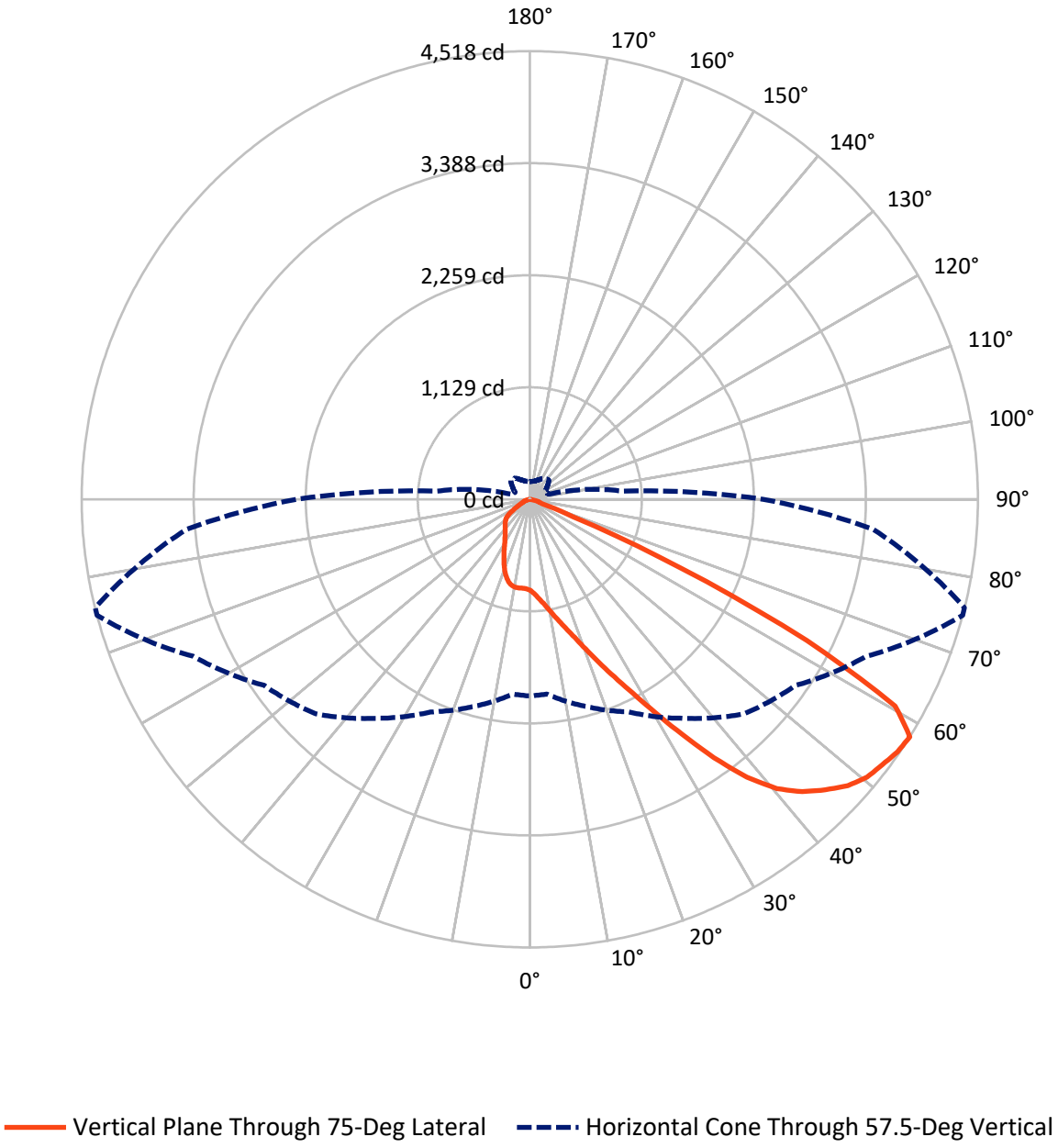
Luminous Intensity Polar Plot



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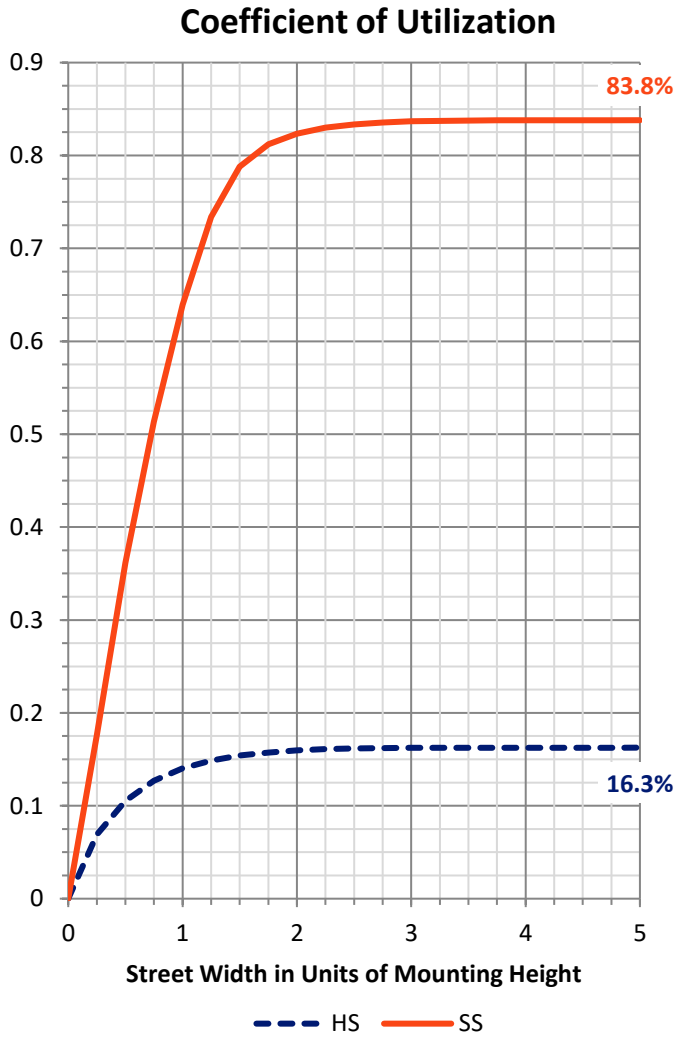
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	900.0	0.0	900.0
	% Fixture	16.3	0.0	16.3
Street Side	Lumens	4609.6	0.0	4609.6
	% Fixture	83.7	0.0	83.7
Total	Lumens	5509.6	0.0	5509.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	93.5	1.7
10°-20°	303.8	5.5
20°-30°	556.2	10.1
30°-40°	922.9	16.8
40°-50°	1409.4	25.6
50°-60°	1583.7	28.7
60°-70°	584.2	10.6
70°-80°	55.8	1.0
80°-90°	0.0	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°	5509.6	100.0
0°-180°	5509.6	100.0



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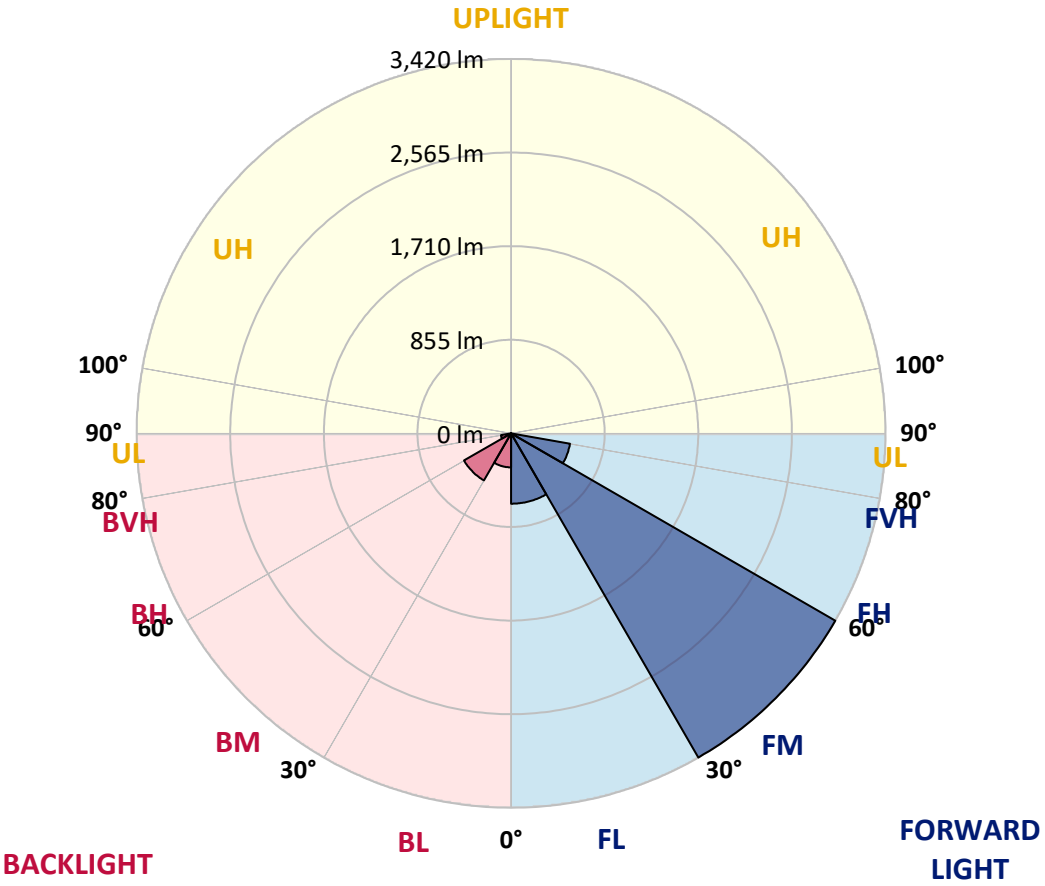
LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	643.0	11.7			
FM	(30°-60°)	3420.1	62.1			
FH	(60°-80°)	546.5	9.9			G0/660
FVH	(80°-90°)	0.0	0.0			G0/10
BL	(0°-30°)	310.6	5.6	B1/500		
BM	(30°-60°)	495.9	9.0	B1/1000		
BH	(60°-80°)	93.5	1.7	B0/110		G0/110
BVH	(80°-90°)	0.0	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-G0
Type II Short



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Scaled Data Report

REPORT NUMBER: P633043
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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	76°	85°
0°	918.9	918.9	918.9	918.9	918.9	918.9	918.9	918.9	*918.9*	918.9	918.9
2.5°	1026.6	1037.3	1034.0	1027.3	1023.3	1009.4	1000.7	975.4	*957.5*	955.5	938.9
5°	1156.3	1154.3	1151.6	1143.7	1137.0	1115.1	1089.1	1046.6	*1008.7*	1004.0	968.8
7.5°	1227.4	1228.8	1230.1	1228.8	1224.1	1207.5	1178.9	1129.0	*1071.2*	1067.2	1011.3
10°	1256.7	1259.4	1266.0	1278.6	1290.0	1288.6	1272.0	1220.8	*1149.7*	1143.0	1067.9
12.5°	1270.7	1274.0	1284.6	1308.6	1339.2	1363.1	1365.8	1319.9	*1241.4*	1230.8	1135.0
15°	1290.0	1293.3	1306.6	1337.8	1382.4	1429.6	1460.2	1430.9	*1343.1*	1331.8	1208.8
17.5°	1298.6	1303.3	1322.5	1363.8	1421.6	1494.1	1563.2	1560.6	*1463.5*	1454.9	1294.6
20°	1315.2	1318.5	1335.8	1380.4	1450.2	1554.6	1671.0	1712.8	*1610.4*	1597.8	1398.3
22.5°	1367.7	1369.1	1377.1	1405.0	1470.1	1598.5	1780.7	1890.4	*1784.0*	1767.4	1514.7
25°	1453.5	1452.9	1456.2	1460.8	1508.7	1643.0	1886.4	2090.5	*1982.8*	1964.8	1646.4
27.5°	1562.6	1562.6	1570.5	1557.3	1576.5	1698.2	1990.8	2320.6	*2214.2*	2188.9	1790.6
30°	1690.9	1690.2	1708.9	1687.6	1693.6	1785.3	2103.2	2571.3	*2493.5*	2462.2	1956.9
32.5°	1865.1	1861.1	1882.4	1853.1	1833.2	1917.0	2240.1	2833.2	*2827.9*	2780.0	2165.7
35°	2085.2	2078.6	2085.2	2056.6	2020.7	2101.2	2419.7	3094.6	*3198.9*	3148.4	2414.3
37.5°	2304.0	2325.2	2332.6	2283.3	2254.1	2334.5	2635.8	3328.6	*3553.4*	3500.8	2673.0
40°	2562.0	2555.3	2580.6	2525.4	2506.8	2595.9	2847.2	3502.8	*3834.0*	3784.1	2903.1
42.5°	2752.1	2764.1	2795.3	2764.8	2750.1	2833.9	3024.7	3604.6	*4028.8*	3979.6	3067.3
45°	2980.2	2988.8	3000.8	2975.5	2960.2	3042.7	3153.1	3649.1	*4177.1*	4123.9	3177.7
47.5°	3226.9	3233.5	3233.5	3181.7	3132.5	3166.4	3238.8	3674.4	*4313.4*	4262.2	3259.5
50°	3403.7	3407.1	3436.3	3399.8	3292.7	3240.2	3278.1	3699.0	*4403.8*	4355.9	3286.1
52.5°	3246.8	3242.8	3339.2	3415.0	3443.6	3339.2	3345.9	3734.9	*4447.7*	4406.4	3307.3
55°	2734.2	2727.5	2863.2	3047.3	3299.4	3433.0	3427.7	3756.2	*4496.2*	4470.9	3384.5
57.5°	*1982.1*	*1970.8*	*2159.7*	*2364.5*	*2694.9*	*3057.3*	*3270.1*	*3744.2*	*4517.5*	*4515.5*	*3474.2*
60°	1191.5	1182.2	1360.4	1575.9	1831.2	2195.6	2548.7	3353.9	*4232.9*	4236.9	3240.8
62.5°	733.4	742.1	903.0	1012.7	1107.8	1217.5	1421.6	2256.1	*3135.8*	3161.7	2277.4
65°	493.4	500.0	649.0	787.3	787.3	643.6	552.6	1078.5	*1672.9*	1629.1	1077.2
67.5°	331.1	338.4	456.1	617.7	641.0	448.8	224.1	321.8	*466.1*	452.1	266.6
70°	194.8	202.8	303.9	423.6	466.8	312.5	149.6	136.3	*132.3*	128.3	103.7
72.5°	87.1	90.4	154.9	215.4	196.8	131.7	105.7	109.0	*103.1*	101.1	84.4
75°	26.6	27.9	39.9	46.5	47.2	47.2	63.8	85.8	*81.1*	81.8	65.2
77.5°	6.6	6.6	10.6	10.0	5.3	4.7	12.0	19.3	*19.9*	18.0	13.3
80°	0.0	0.0	0.0	0.0	0.0	0.7	0.7	0.7	*0.7*	0.7	0.7
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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CATALOG NUMBER: GWS-SA2D-830-U-T2-W-GRSBK

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	918.9	918.9	918.9	918.9	918.9	918.9	918.9	918.9	918.9	918.9	918.9
2.5°	931.6	914.3	903.0	887.0	875.7	863.7	853.1	844.5	839.8	838.5	839.1
5°	952.8	925.6	899.0	868.4	847.1	827.2	811.2	798.6	792.6	790.6	790.6
7.5°	985.4	947.5	900.3	852.4	816.5	785.3	766.7	752.7	747.4	746.0	742.1
10°	1028.0	976.1	898.3	823.8	773.3	740.7	727.4	723.4	725.4	726.1	725.4
12.5°	1079.2	1006.0	885.7	782.0	727.4	707.5	708.8	719.4	731.4	737.4	738.7
15°	1133.7	1033.3	857.1	732.1	688.2	687.5	706.8	731.4	754.7	764.7	767.3
17.5°	1194.9	1055.2	813.2	678.9	654.3	673.6	708.1	746.0	777.3	793.9	797.2
20°	1262.0	1073.2	757.3	629.0	624.4	658.9	706.8	753.4	791.9	810.5	813.9
22.5°	1331.8	1085.8	692.9	583.1	597.1	642.3	694.2	739.4	776.0	797.2	799.9
25°	1411.6	1087.2	627.0	544.6	571.8	619.7	663.6	700.8	731.4	750.0	752.0
27.5°	1481.5	1071.2	568.5	513.3	548.6	591.8	621.0	641.7	662.9	673.6	674.2
30°	1561.9	1043.3	513.3	488.1	524.6	557.2	571.8	576.5	578.5	580.5	577.8
32.5°	1657.7	1009.4	472.1	463.5	497.4	519.3	523.3	514.0	502.7	486.7	482.7
35°	1775.3	978.8	438.2	439.5	467.4	480.7	477.4	457.5	435.5	416.2	412.9
37.5°	1903.0	952.8	412.3	416.2	434.9	444.2	434.2	412.3	402.3	385.7	386.3
40°	2016.0	931.6	389.0	393.0	401.6	410.3	394.3	379.7	398.3	397.0	398.3
42.5°	2096.5	913.6	369.0	367.0	373.0	379.0	367.0	359.7	391.0	382.3	387.0
45°	2143.7	897.0	352.4	340.4	349.7	360.4	352.4	343.1	353.7	313.8	310.5
47.5°	2175.6	887.7	337.8	314.5	331.1	349.7	333.1	310.5	295.2	260.7	258.0
50°	2179.0	883.0	320.5	287.9	309.2	329.1	309.9	278.6	256.7	241.4	239.4
52.5°	2196.2	892.3	296.6	254.0	277.3	309.2	295.9	264.6	234.7	221.4	218.8
55°	2273.4	931.6	256.7	207.5	241.4	293.9	284.6	236.0	207.5	199.5	197.5
57.5°	*2353.2*	*939.5*	*202.1*	*164.2*	*210.1*	*272.0*	*260.0*	*217.4*	*189.5*	*180.2*	*178.2*
60°	2151.7	774.0	151.6	135.6	185.5	251.3	240.7	206.1	173.5	162.2	160.2
62.5°	1413.6	418.2	120.4	115.0	156.3	212.8	219.4	186.2	154.9	143.0	142.3
65°	651.6	194.2	92.4	91.1	122.3	169.6	188.8	162.9	131.0	120.4	120.4
67.5°	177.5	96.4	72.5	67.2	83.1	113.7	137.6	121.7	93.1	80.5	79.8
70°	88.4	77.8	65.2	57.8	59.8	70.5	81.1	67.8	47.2	38.6	37.9
72.5°	72.5	63.8	55.2	49.2	45.2	43.2	41.9	33.9	21.9	16.6	16.0
75°	53.9	45.9	39.2	31.9	27.3	25.3	22.6	16.6	9.3	5.3	4.7
77.5°	12.0	11.3	10.6	8.0	7.3	6.0	4.7	3.3	1.3	0.0	0.0
80°	0.7	0.7	0.7	0.7	0.7	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

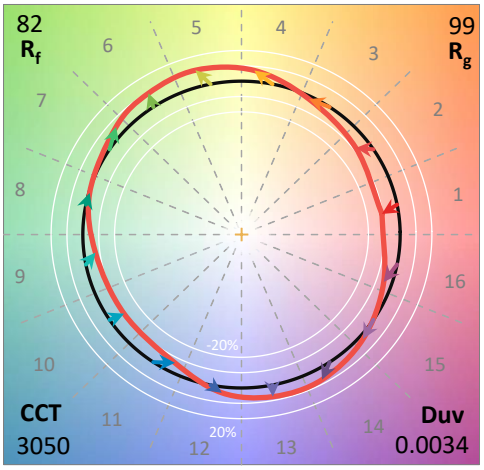
Test Information

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

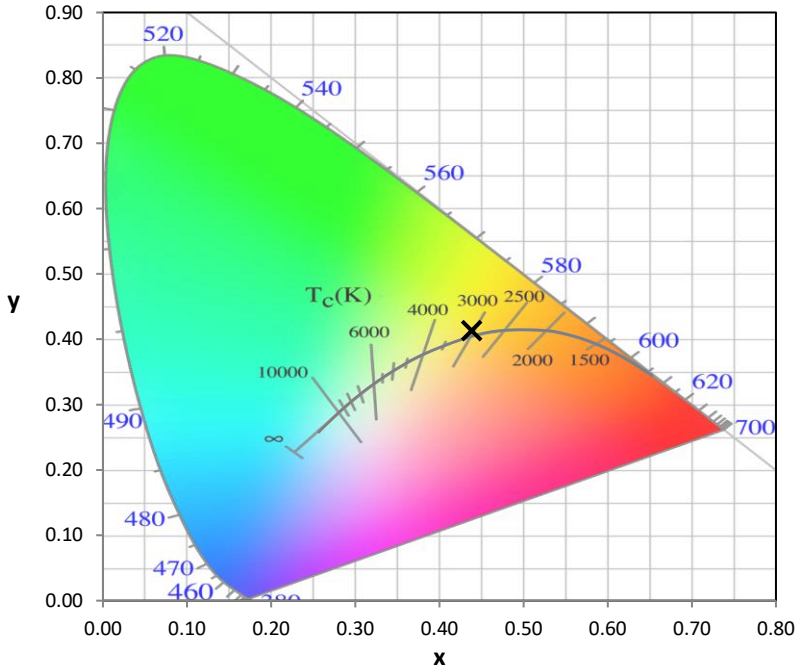
Stabilization Time:	20M
Operation Time:	1H 20M
Sphere Temperature (°C):	24.2

REPORT NUMBER: SP1-2408-195-9

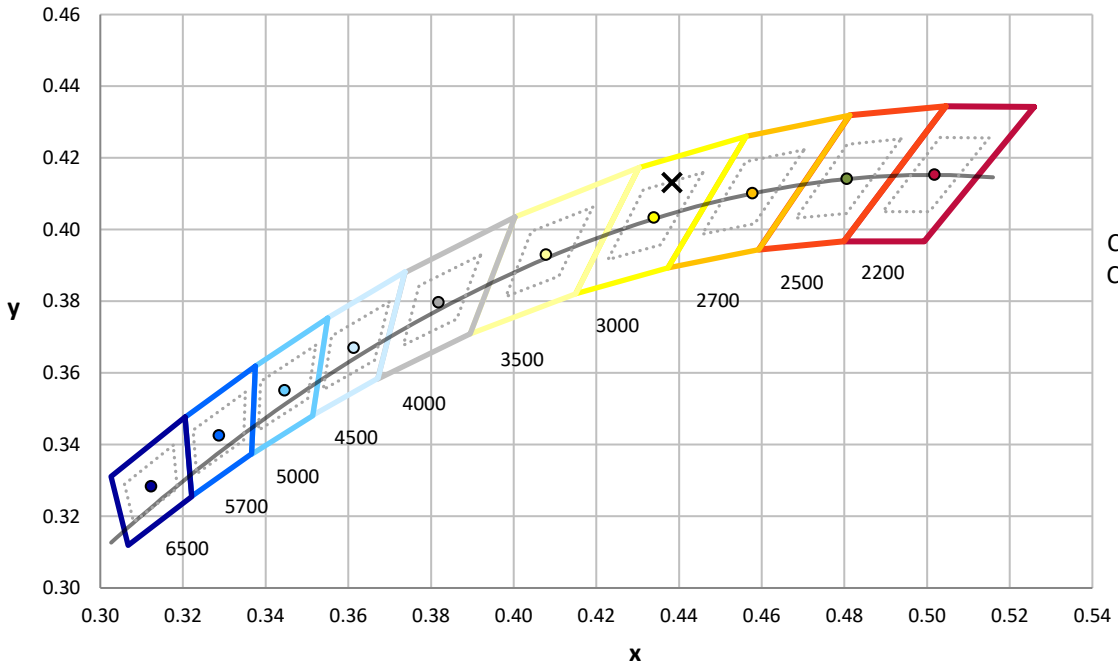
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

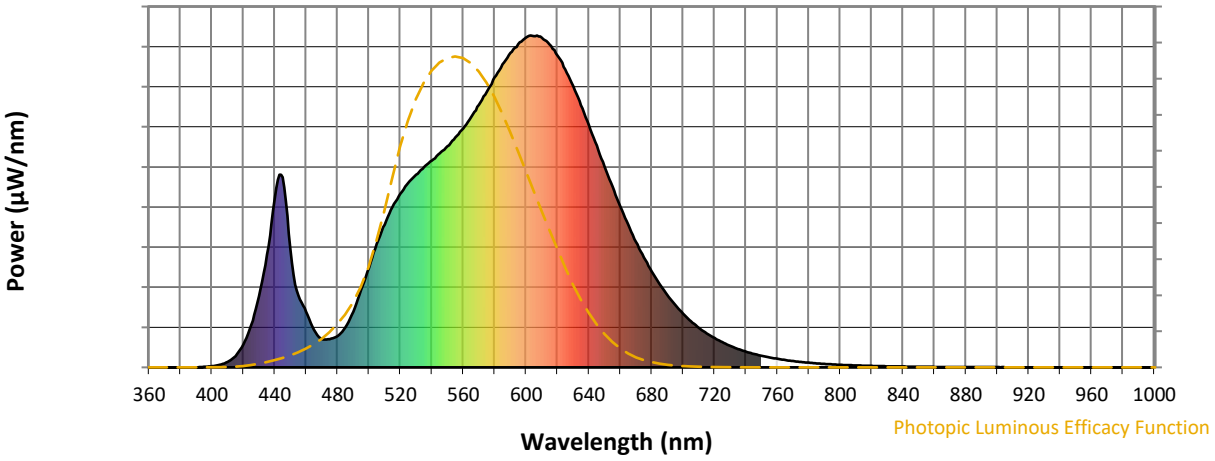


CCT = 3050K
CIE x = 0.4383
CIE y = 0.4131
Duv = 0.0034

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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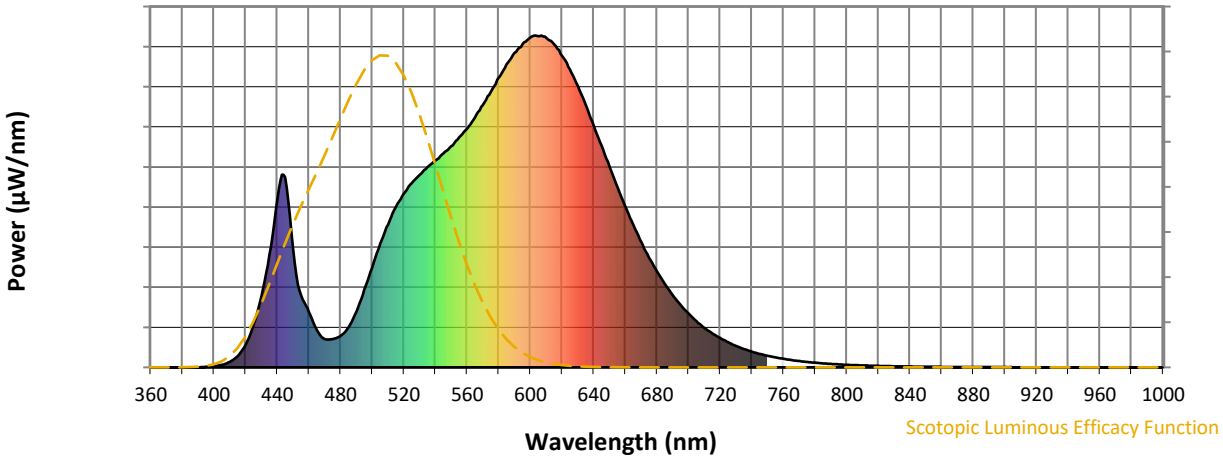
Scotopic Flux vs. Wavelength



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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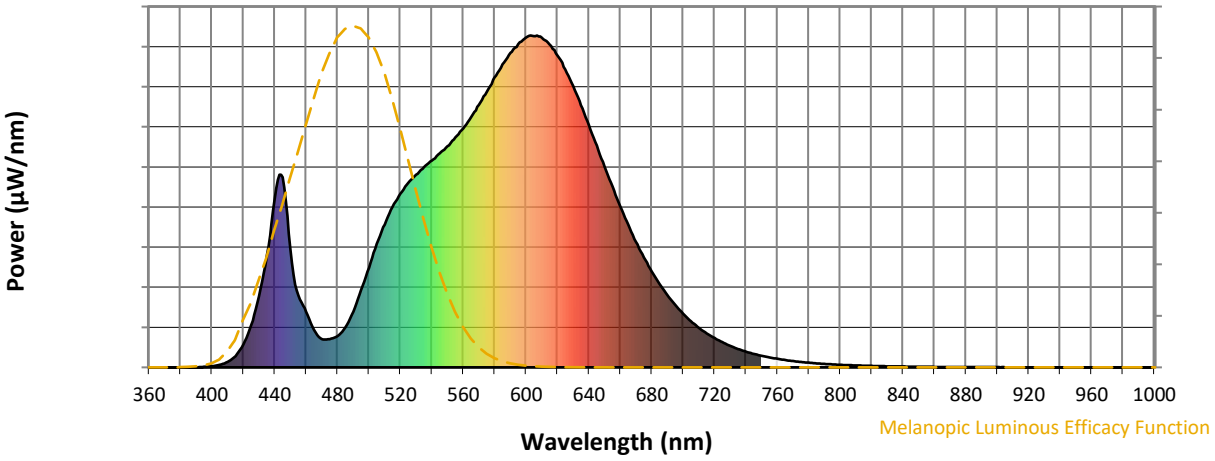
Melanopic Flux vs. Wavelength



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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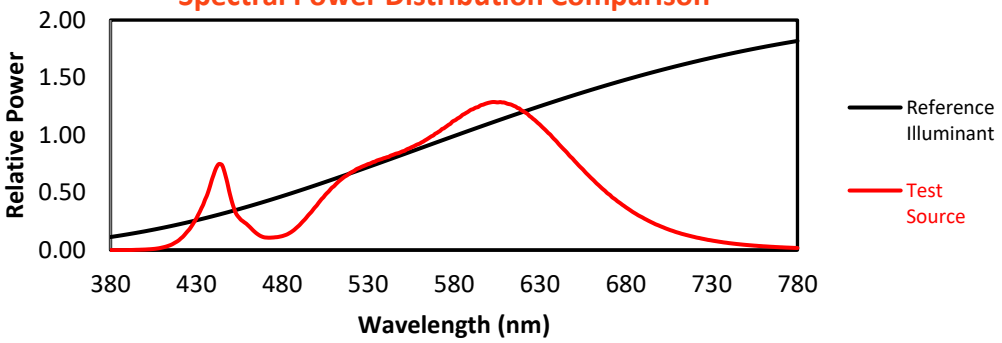
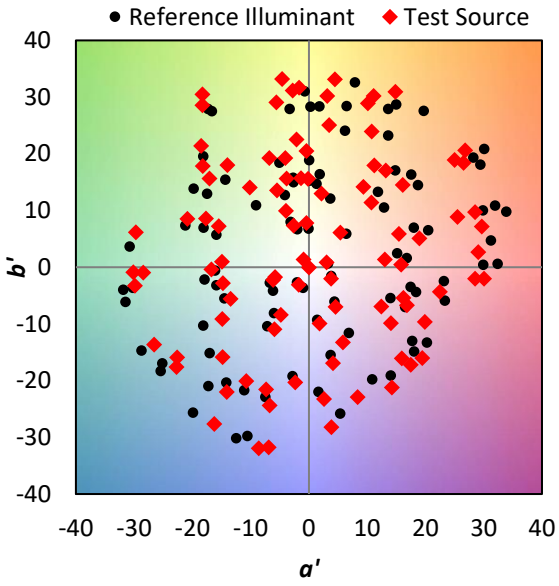
Summary

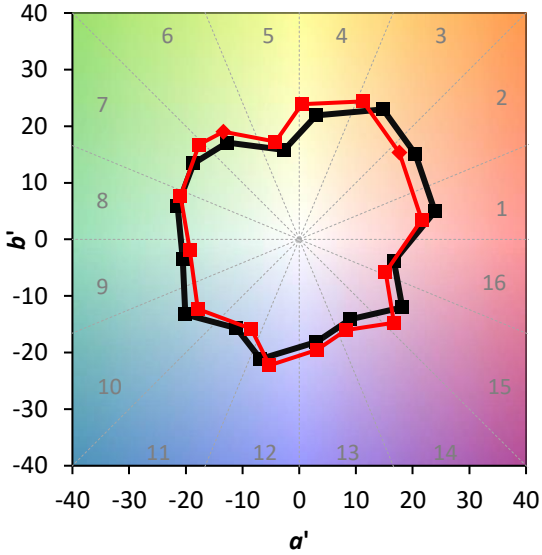
R_f = 81.5
R_g = 99.2
CIE R_a = 81.0
R_9 = 7.1

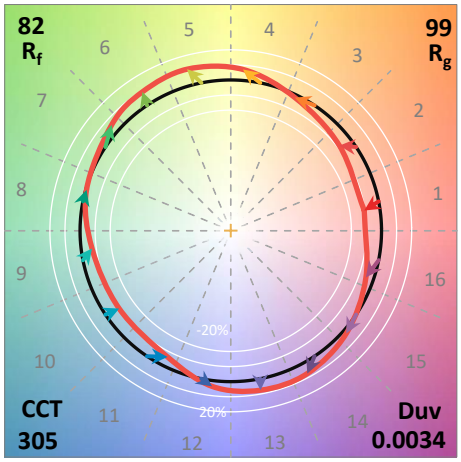
Spectral Power Distribution Comparison

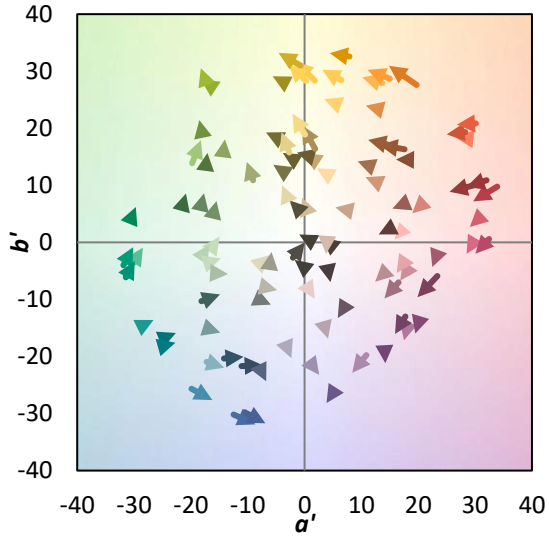


Color Vector Graphics









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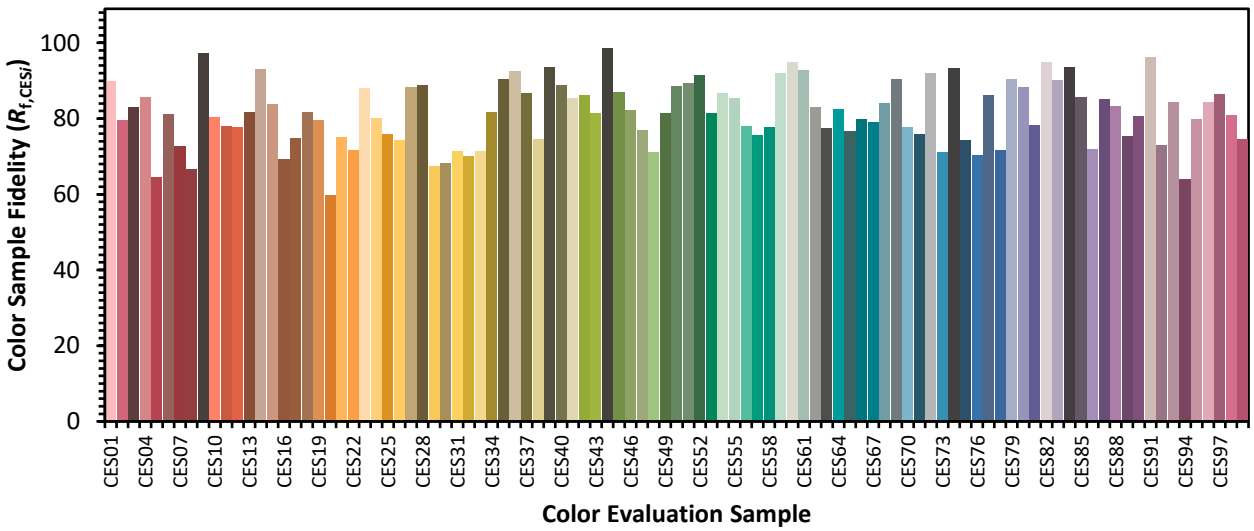
Individual Sample Fidelity Index ($R_{f,i}$)

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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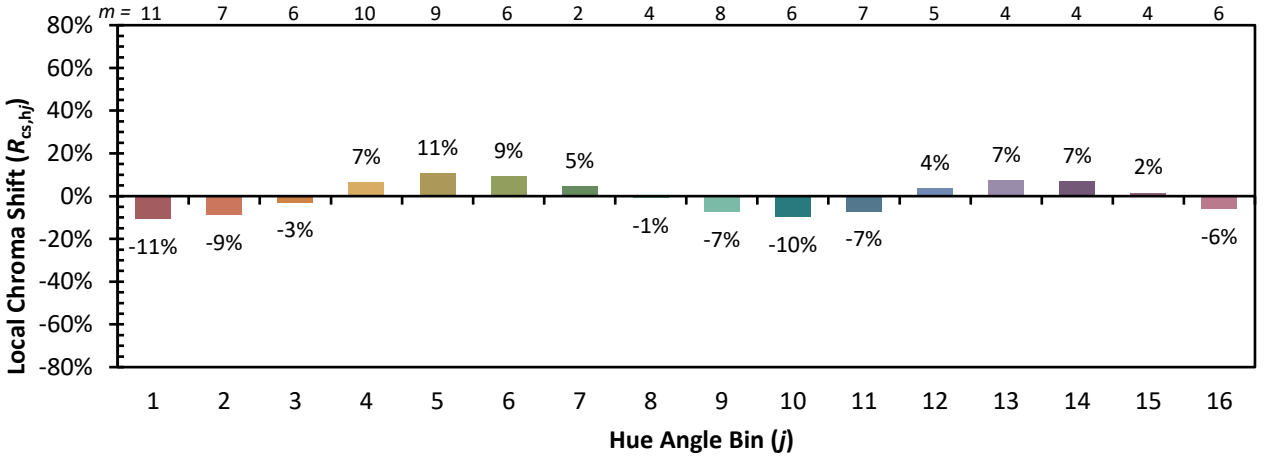
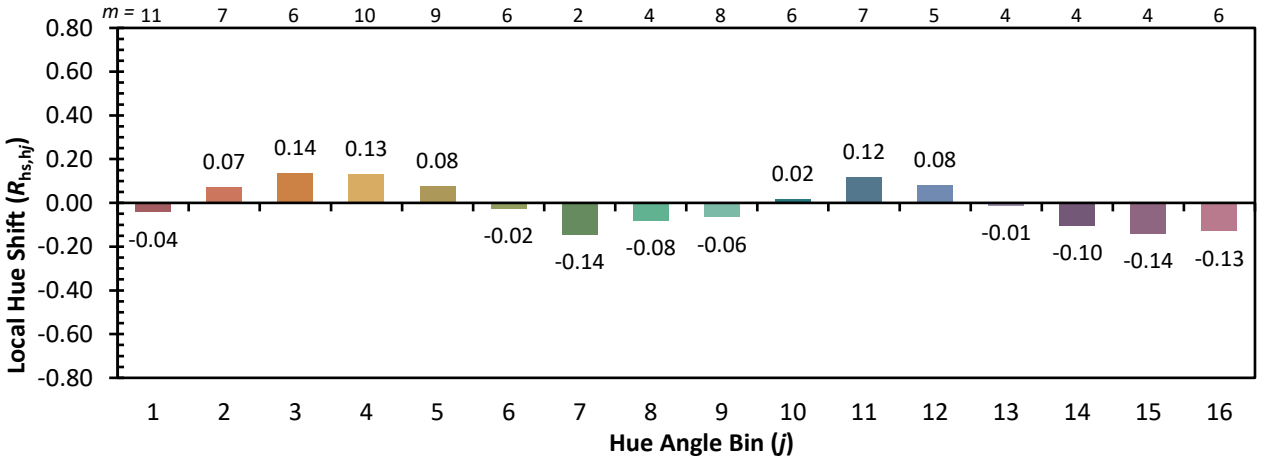
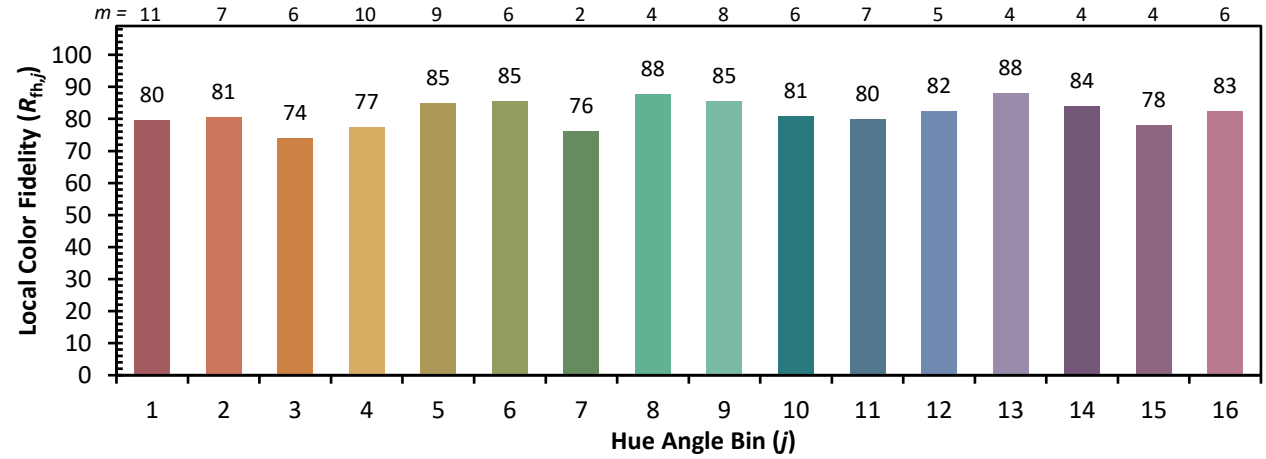
Color Rendition by Hue-Angle Bin







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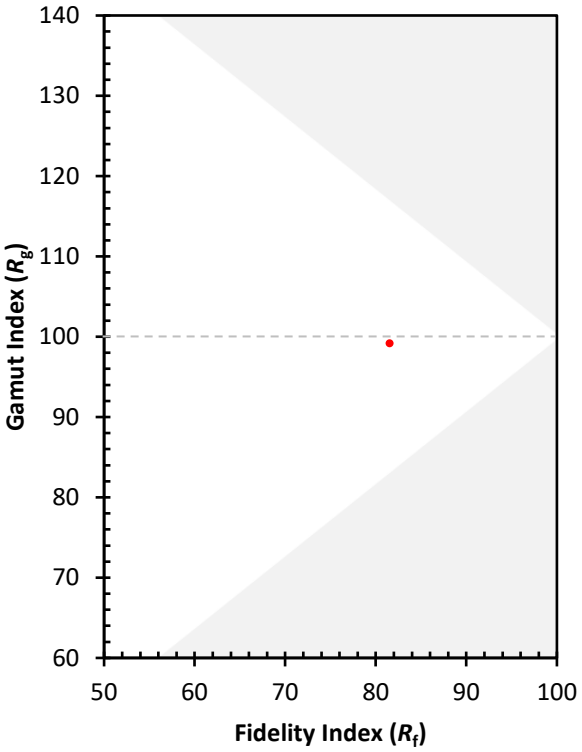
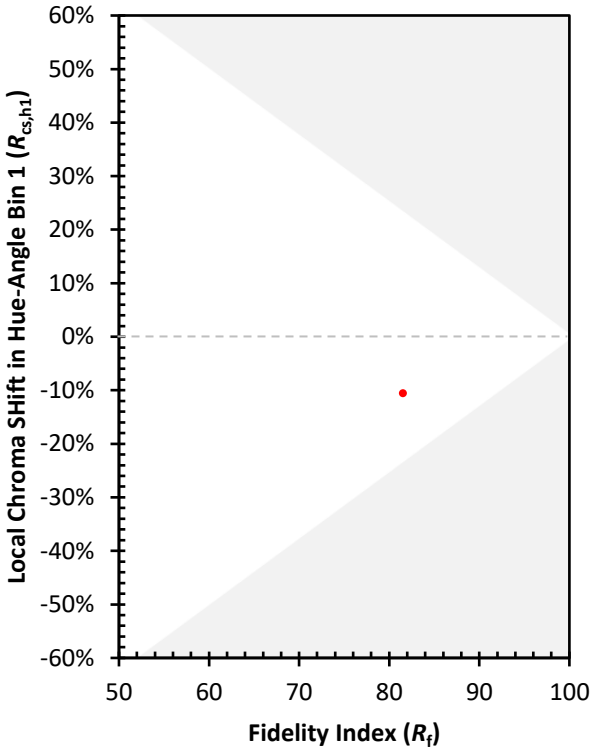
Measure Comparisons





(END OF REPORT)