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: P637997

Luminaire Tested: GWS-SA4D-830-U-T2R-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:	P637997
	TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-12)
Test Lab:	COOPER LIGHTING SOLUTIONS
Issue Date:	1/10/2023
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	McGRAW-EDISON
Catalog Number:	GWS-SA4D-830-U-T2R-W-GRSBK
Description:	GALLEON WALL SLIM LUMINAIRE. (4) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II ROADWAY OPTICS W/ FACTORY INSTALLED GLARE SHIELD, BK
Light Source:	(64) 3000K CCT, 80 CRI LEDS
Ballast/Driver:	-

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	13040.7 lumens
Efficiency:	N/A
Efficacy:	80.4 lumens/watt
Luminous Opening:	Rectangular (W 1' x L: 1' x H: 0')
IES Classification:	Type II - Short
BUG Rating:	B2 - U0 - G1

Input Watts (W):	162.1
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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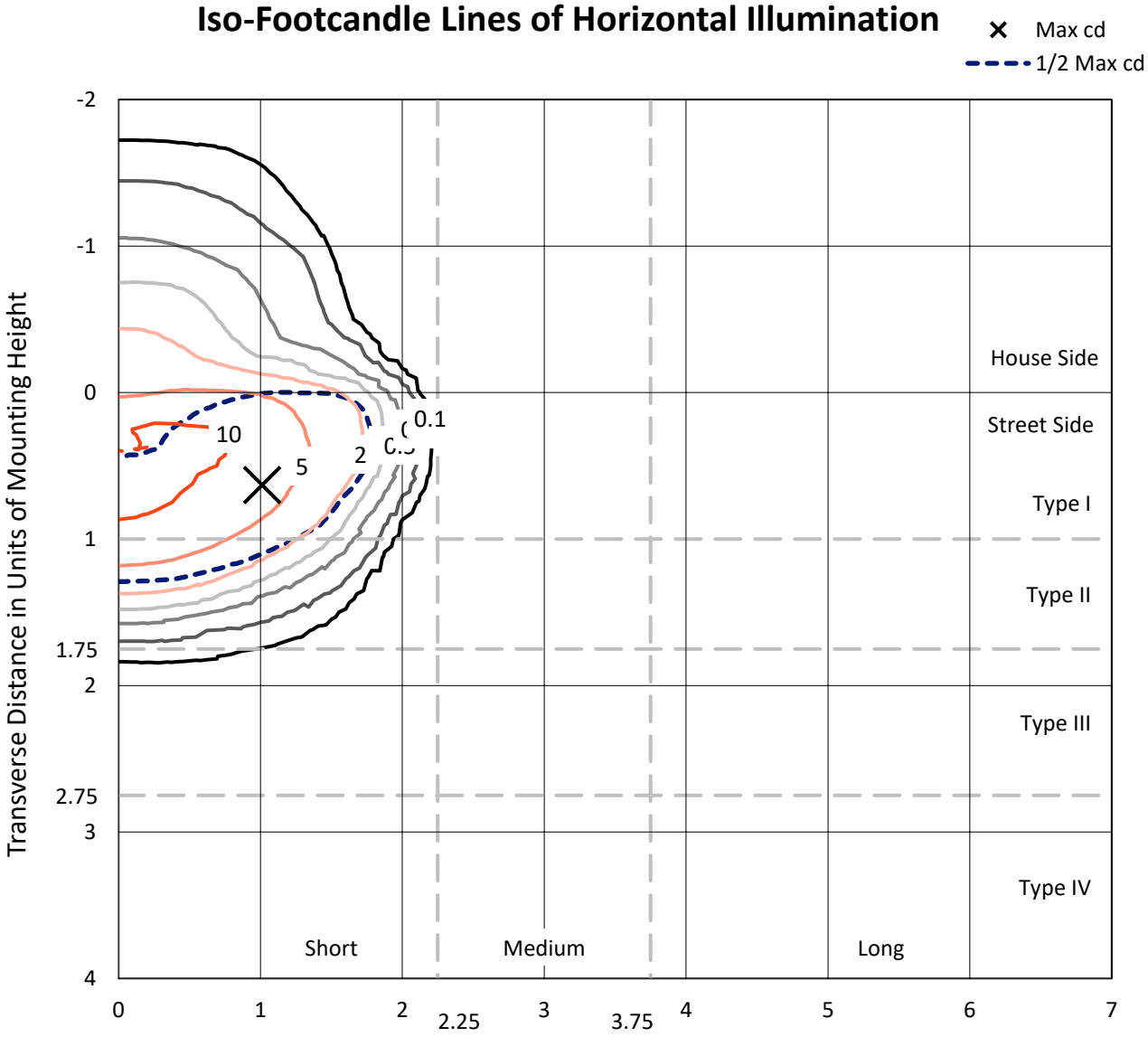
REPORT NUMBER: P637997
CATALOG NUMBER: GWS-SA4D-830-U-T2R-W-GRSBK

Iso-Footcandle Lines of Horizontal Illumination



Based on 20 foot mounting height. Maximum calculated value = 12 fc
Type II - Short - N/A

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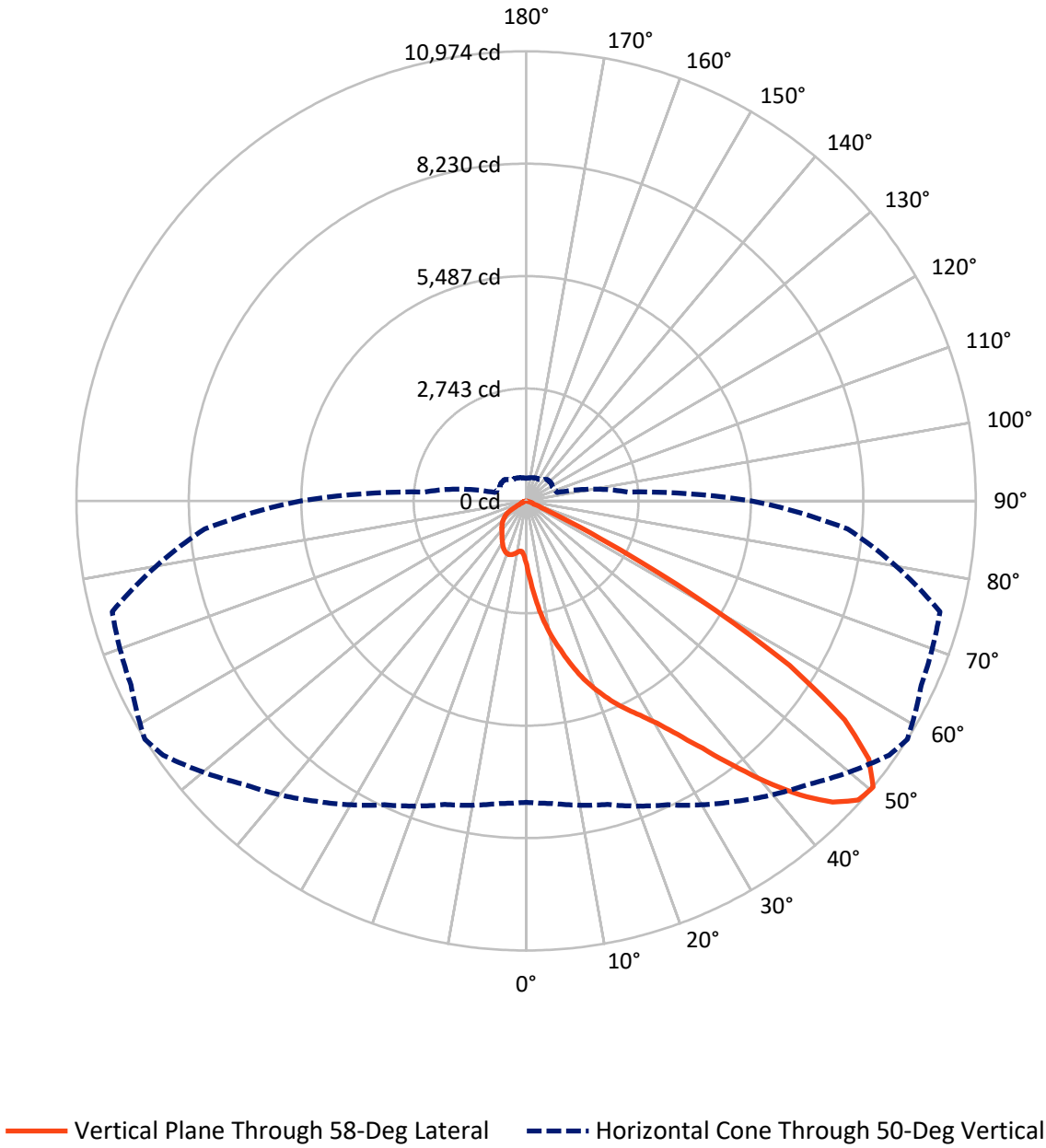
Luminous Intensity Polar Plot



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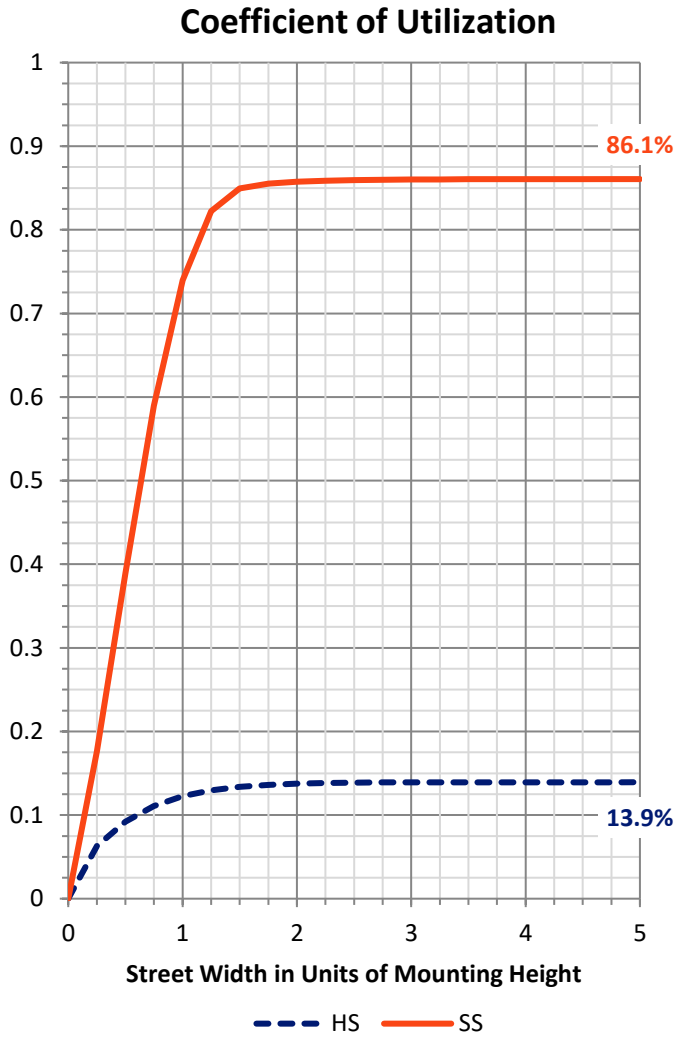
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1826.5	0.0	1826.5
	% Fixture	14.0	0.0	14.0
Street Side	Lumens	11214.2	0.0	11214.2
	% Fixture	86.0	0.0	86.0
Total	Lumens	13040.7	0.0	13040.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	193.0	1.5
10°-20°	763.9	5.9
20°-30°	1545.8	11.9
30°-40°	2734.8	21.0
40°-50°	3986.7	30.6
50°-60°	3195.4	24.5
60°-70°	575.7	4.4
70°-80°	45.4	0.3
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°	13040.7	100.0
0°-180°	13040.7	100.0



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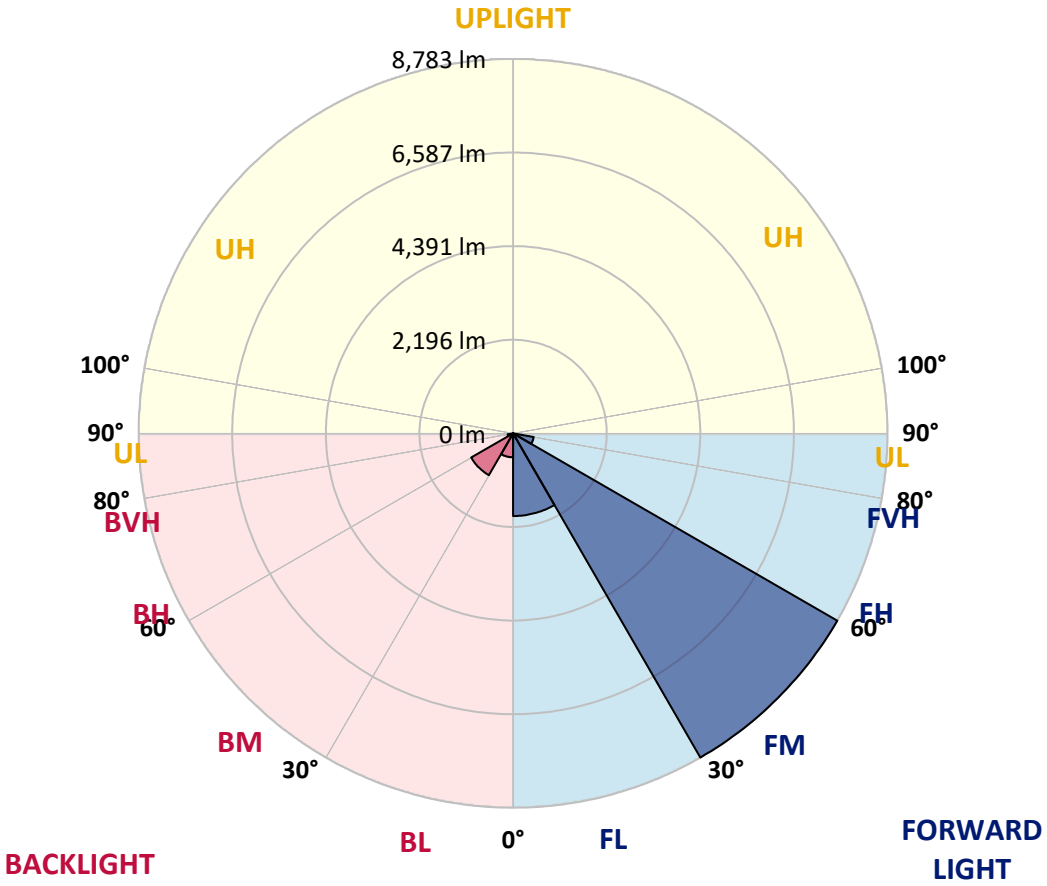
LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	1940.4	14.9			
FM	(30°-60°)	8782.5	67.3			
FH	(60°-80°)	491.2	3.8			G0/660
FVH	(80°-90°)	0.0	0.0			G0/10
BL	(0°-30°)	562.3	4.3	B2/1000		
BM	(30°-60°)	1134.4	8.7	B2/2500		
BH	(60°-80°)	129.8	1.0	B1/500		G1/500
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: B2-U0-G1
Type II Short



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REPORT NUMBER: P637997
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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	58°	65°	75°	85°
0°	1557.7	1557.7	1557.7	1557.7	1557.7	1557.7	1557.7	1557.7	1557.7	1557.7	1557.7
2.5°	2305.2	2268.9	2248.0	2231.2	2157.3	2040.2	1963.5	1923.1	1856.1	1743.2	1645.5
5°	3008.0	2981.5	2932.7	2899.2	2804.4	2638.4	2466.9	2398.6	2246.6	1991.4	1762.7
7.5°	3473.8	3454.2	3436.1	3391.5	3302.2	3151.6	2962.0	2890.9	2656.6	2294.0	1918.9
10°	3832.2	3816.8	3795.9	3794.5	3724.8	3589.5	3404.0	3330.1	3076.3	2623.1	2103.0
12.5°	4147.3	4134.8	4130.6	4169.6	4125.0	4024.6	3823.8	3731.8	3462.6	2959.2	2306.6
15°	4363.5	4360.7	4378.8	4455.5	4480.6	4434.6	4265.9	4166.9	3857.3	3296.7	2531.1
17.5°	4462.5	4470.9	4505.7	4638.2	4749.8	4788.8	4659.1	4575.5	4249.1	3638.3	2770.9
20°	4631.2	4628.4	4649.4	4774.9	4911.5	5051.0	5011.9	4940.8	4645.2	3999.5	3037.3
22.5°	5106.8	5066.3	5021.7	5041.2	5090.0	5253.2	5325.7	5289.4	5053.8	4370.5	3312.0
25°	5837.5	5795.7	5652.0	5512.6	5420.5	5494.4	5593.5	5611.6	5459.6	4751.2	3599.3
27.5°	6612.9	6575.2	6413.4	6204.3	5940.7	5812.4	5886.3	5922.6	5858.4	5204.4	3904.7
30°	7339.4	7289.2	7112.1	6852.7	6547.3	6350.7	6267.0	6292.1	6329.8	5741.3	4263.1
32.5°	7969.7	7932.1	7720.1	7446.8	7152.5	6947.5	6752.3	6794.1	6886.2	6398.1	4721.9
35°	8503.8	8484.3	8259.8	7987.9	7676.9	7572.3	7405.0	7413.3	7505.4	7191.6	5281.1
37.5°	8968.2	8934.7	8731.1	8478.7	8231.9	8215.2	8169.2	8173.3	8220.8	8116.2	5924.0
40°	9261.1	9230.4	9085.4	8929.2	8753.5	8756.2	8994.7	9012.8	8958.5	9024.0	6603.1
42.5°	9371.2	9348.9	9270.8	9272.2	9254.1	9336.4	9784.0	9817.5	9622.3	9736.6	7183.2
45°	9180.2	9170.4	9176.0	9376.8	9594.4	9848.2	10429.7	10488.3	10212.1	10209.3	7636.4
47.5°	8563.8	8544.3	8707.4	9049.1	9552.5	10046.2	10820.2	10910.8	10624.9	10479.9	7920.9
50°	7356.1	7411.9	7669.9	8183.1	8948.7	9774.3	10816.0	10973.6	10640.3	10456.2	7873.5
52.5°	5328.5	5317.3	5882.1	6587.8	7519.3	8904.1	10241.4	10471.5	10267.9	10223.3	7767.5
55°	2899.2	3001.0	3381.7	4316.1	5479.1	7257.1	8929.2	9431.2	9666.9	10138.2	7958.6
57.5°	1065.4	1110.0	1348.5	2009.5	2900.6	4512.7	6820.6	7577.9	8305.8	9901.2	7926.5
60°	429.5	437.9	532.7	739.1	1218.8	2296.8	4091.5	4763.7	5449.8	7579.3	6082.9
62.5°	312.4	323.5	361.2	432.3	616.4	1004.1	1764.1	2051.4	2242.4	3754.1	2996.8
65°	252.4	260.8	291.5	323.5	407.2	539.7	569.0	548.1	545.3	970.6	687.5
67.5°	209.2	217.5	239.9	262.2	292.9	269.1	195.2	205.0	167.3	165.9	135.3
70°	153.4	163.2	185.5	209.2	175.7	72.5	113.0	167.3	126.9	106.0	103.2
72.5°	115.7	122.7	143.6	136.7	51.6	27.9	75.3	121.3	97.6	78.1	76.7
75°	86.5	90.6	72.5	22.3	5.6	7.0	27.9	50.2	54.4	44.6	44.6
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	2.8	4.2	5.6	7.0	8.4
80°	0.0	0.0	0.0	0.0	0.0	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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Scaled Data Report

REPORT NUMBER: P637997
CATALOG NUMBER: GWS-SA4D-830-U-T2R-W-GRSBK

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1557.7	1557.7	1557.7	1557.7	1557.7	1557.7	1557.7	1557.7	1557.7	1557.7	1557.7
2.5°	1589.8	1531.2	1447.5	1377.8	1324.8	1273.2	1234.2	1195.1	1193.7	1174.2	1170.0
5°	1656.7	1550.7	1397.3	1287.2	1220.2	1179.8	1151.9	1137.9	1131.0	1124.0	1121.2
7.5°	1752.9	1600.9	1389.0	1271.8	1216.0	1189.5	1170.0	1161.6	1157.5	1151.9	1150.5
10°	1871.5	1673.4	1419.6	1301.1	1252.3	1227.2	1206.3	1193.7	1186.7	1177.0	1174.2
12.5°	2013.7	1762.7	1468.4	1349.9	1298.3	1264.8	1236.9	1218.8	1209.1	1196.5	1193.7
15°	2167.1	1858.9	1522.8	1394.5	1333.2	1289.9	1255.1	1227.2	1209.1	1193.7	1189.5
17.5°	2326.1	1956.5	1571.6	1425.2	1349.9	1298.3	1248.1	1210.5	1188.1	1168.6	1163.0
20°	2504.6	2056.9	1603.7	1430.8	1344.3	1276.0	1217.4	1170.0	1147.7	1121.2	1115.6
22.5°	2691.4	2150.4	1617.7	1418.2	1313.6	1234.2	1171.4	1122.6	1090.5	1062.6	1054.3
25°	2872.7	2234.0	1610.7	1383.4	1267.6	1175.6	1111.4	1061.2	1026.4	998.5	991.5
27.5°	3065.2	2303.8	1585.6	1331.8	1204.9	1111.4	1050.1	1006.9	974.8	944.1	937.1
30°	3281.3	2367.9	1545.1	1269.0	1131.0	1045.9	998.5	969.2	934.3	902.3	892.5
32.5°	3542.1	2425.1	1486.6	1193.7	1065.4	988.7	962.2	939.9	899.5	866.0	859.0
35°	3840.5	2472.5	1412.7	1115.6	1001.3	952.5	946.9	917.6	864.6	825.6	817.2
37.5°	4186.4	2518.5	1324.8	1038.9	953.9	935.7	937.1	886.9	822.8	775.4	769.8
40°	4558.7	2564.5	1227.2	972.0	910.6	926.0	913.4	842.3	737.7	691.7	686.1
42.5°	4946.4	2614.7	1128.2	909.2	874.4	888.3	870.2	753.0	677.7	654.0	651.2
45°	5296.4	2674.7	1020.8	846.5	838.1	833.9	803.2	681.9	649.9	633.1	631.7
47.5°	5548.8	2664.9	906.4	786.5	799.1	785.1	691.7	648.5	622.0	599.6	594.1
50°	*5502.8*	*2494.8*	*787.9*	*719.6*	*748.9*	*736.3*	*622.0*	*609.4*	*585.7*	*562.0*	*553.6*
52.5°	5385.7	2263.3	684.7	648.5	694.5	665.2	574.5	562.0	541.1	510.4	500.6
55°	5448.4	2045.8	603.8	591.3	638.7	550.8	521.6	502.0	479.7	446.2	442.1
57.5°	5246.2	1669.3	485.3	493.7	564.8	470.0	457.4	426.7	389.1	366.8	364.0
60°	3631.4	896.7	304.0	313.8	408.6	394.7	410.0	382.1	336.1	315.2	311.0
62.5°	1667.9	359.8	165.9	159.0	214.8	267.7	351.4	348.6	291.5	258.0	255.2
65°	404.4	164.6	118.5	111.6	121.3	160.4	228.7	274.7	235.7	196.6	192.4
67.5°	131.1	133.9	108.8	101.8	107.4	119.9	136.7	152.0	150.6	138.1	135.3
70°	104.6	121.3	100.4	92.0	92.0	96.2	92.0	73.9	64.1	69.7	72.5
72.5°	78.1	92.0	79.5	71.1	68.3	66.9	57.2	41.8	29.3	26.5	25.1
75°	46.0	51.6	48.8	41.8	39.0	34.9	27.9	18.1	9.8	7.0	4.2
77.5°	8.4	9.8	11.2	8.4	7.0	5.6	4.2	1.4	0.0	0.0	0.0
80°	0.0	1.4	1.4	1.4	0.0	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

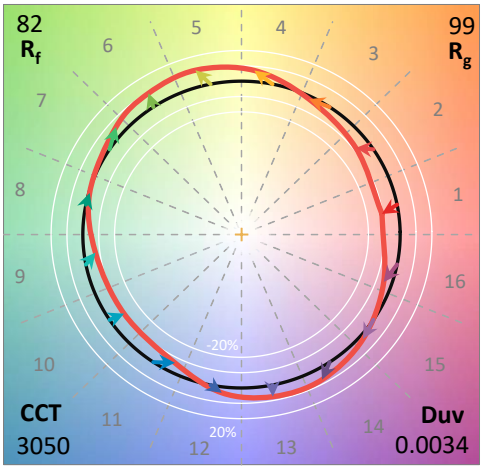
Test Information

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

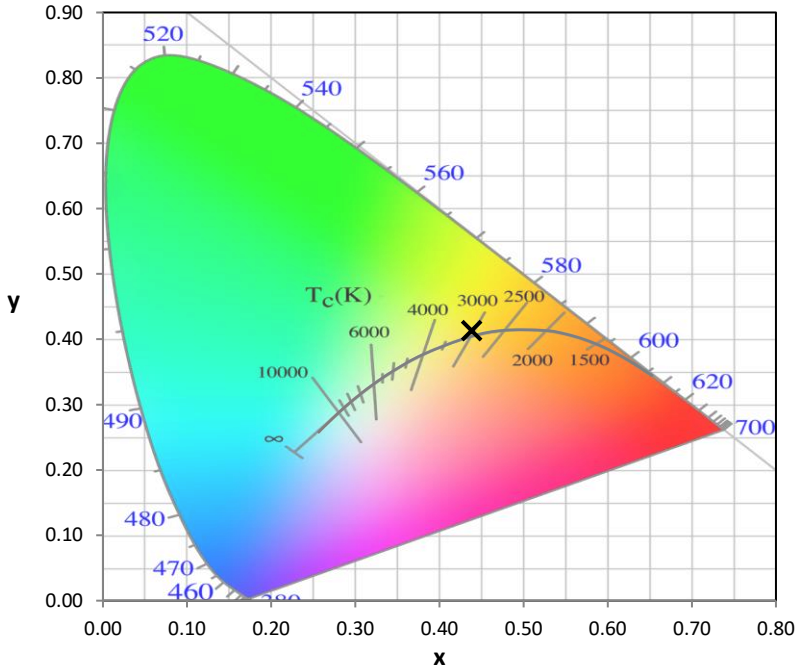
Stabilization Time:	20M
Operation Time:	1H 20M
Sphere Temperature (°C):	24.2

REPORT NUMBER: SP1-2408-195-9

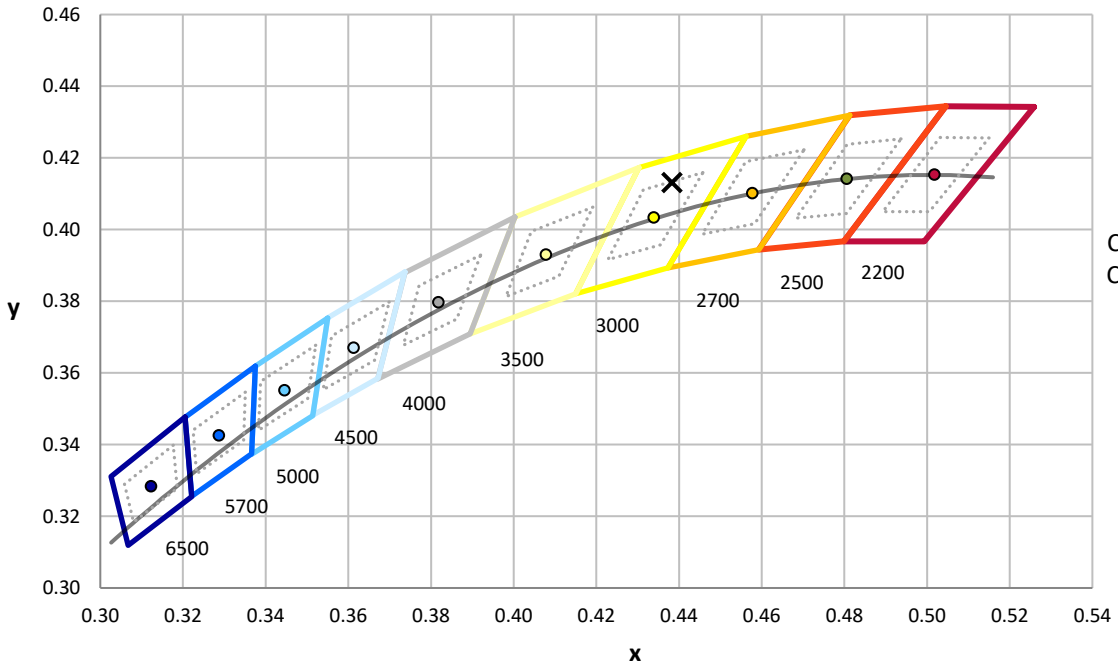
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

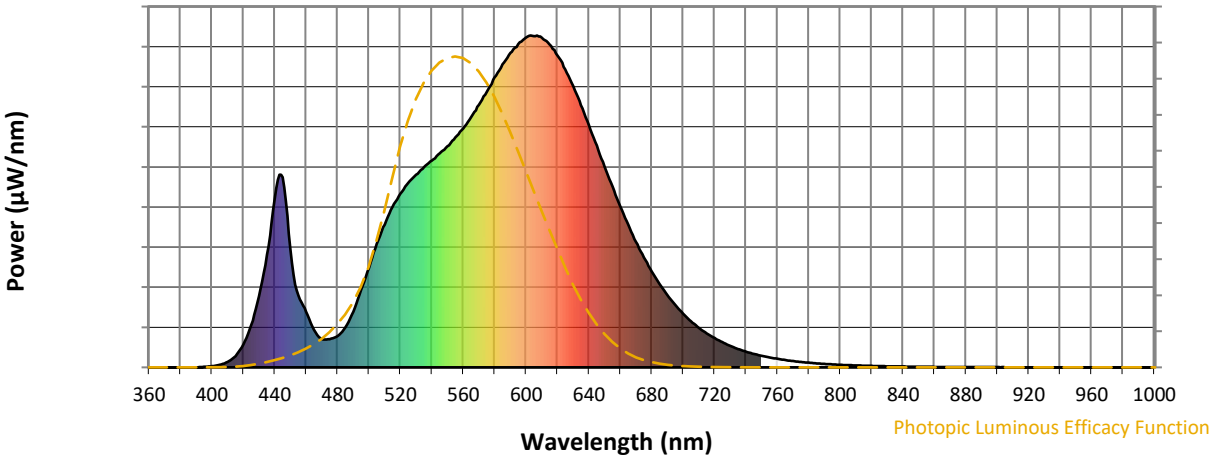


CCT = 3050K
CIE x = 0.4383
CIE y = 0.4131
Duv = 0.0034

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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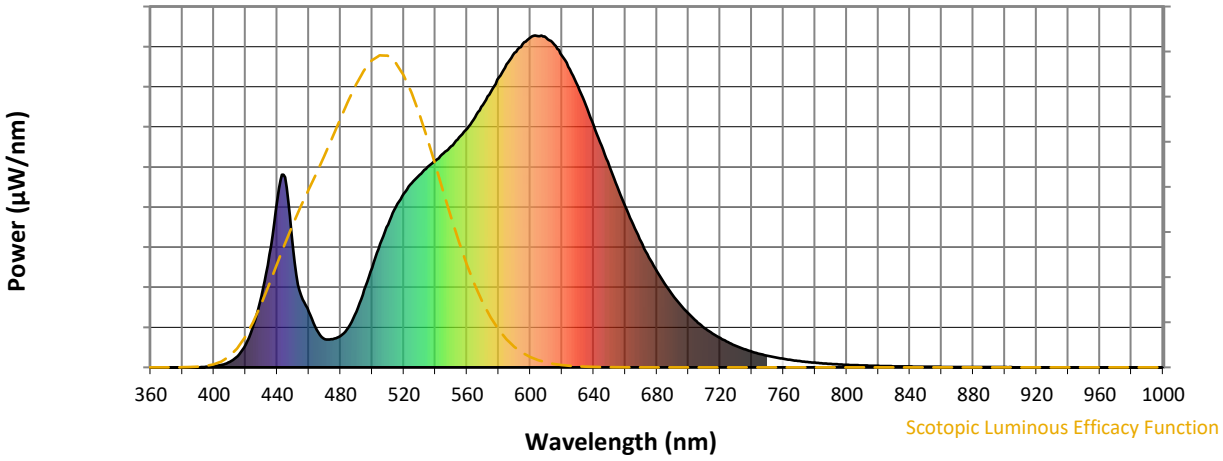
Scotopic Flux vs. Wavelength



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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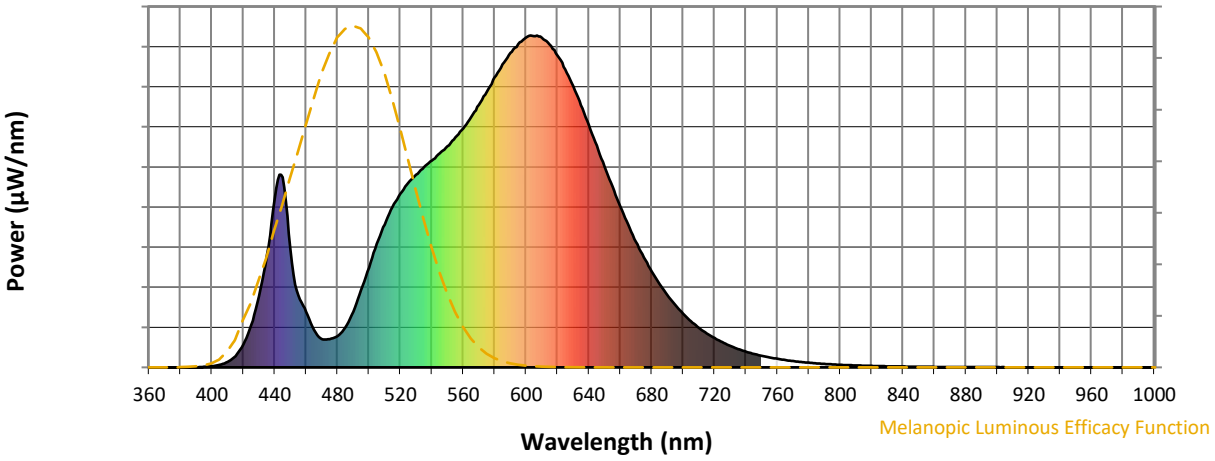
Melanopic Flux vs. Wavelength



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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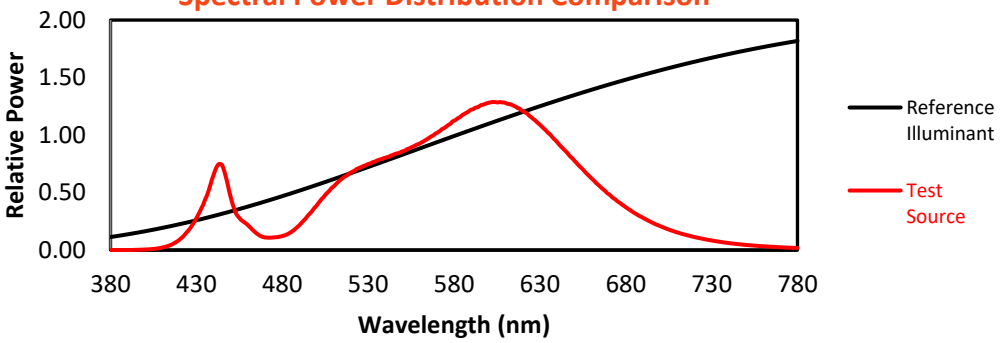
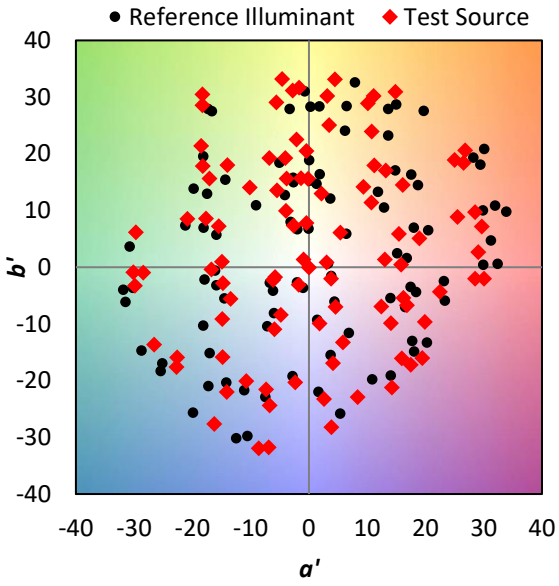
Summary

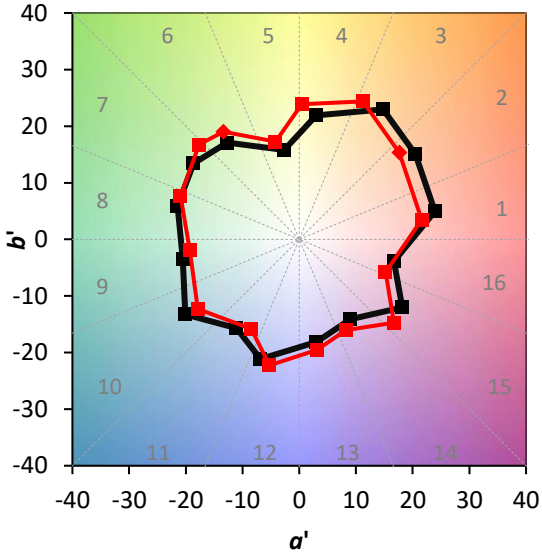
R_f = 81.5
R_g = 99.2
CIE R_a = 81.0
R_9 = 7.1

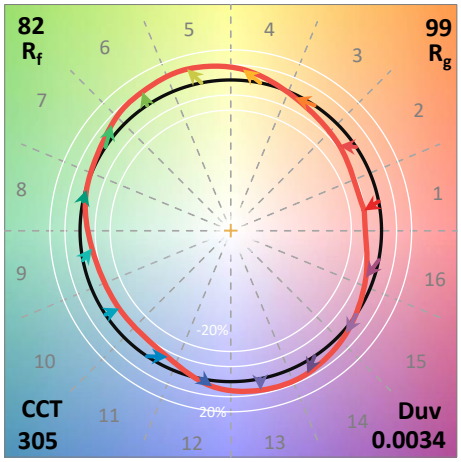
Spectral Power Distribution Comparison

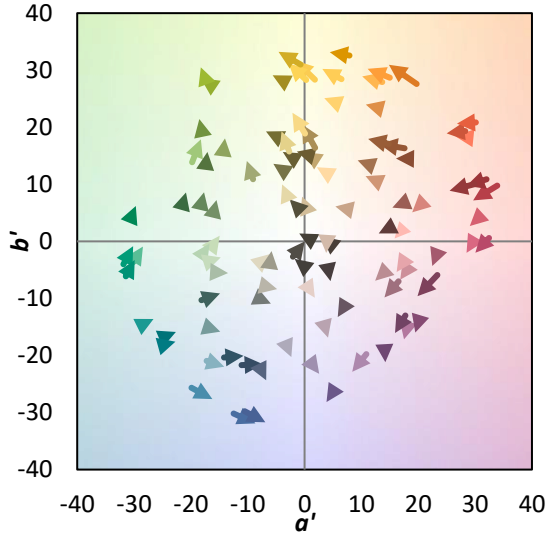


Color Vector Graphics









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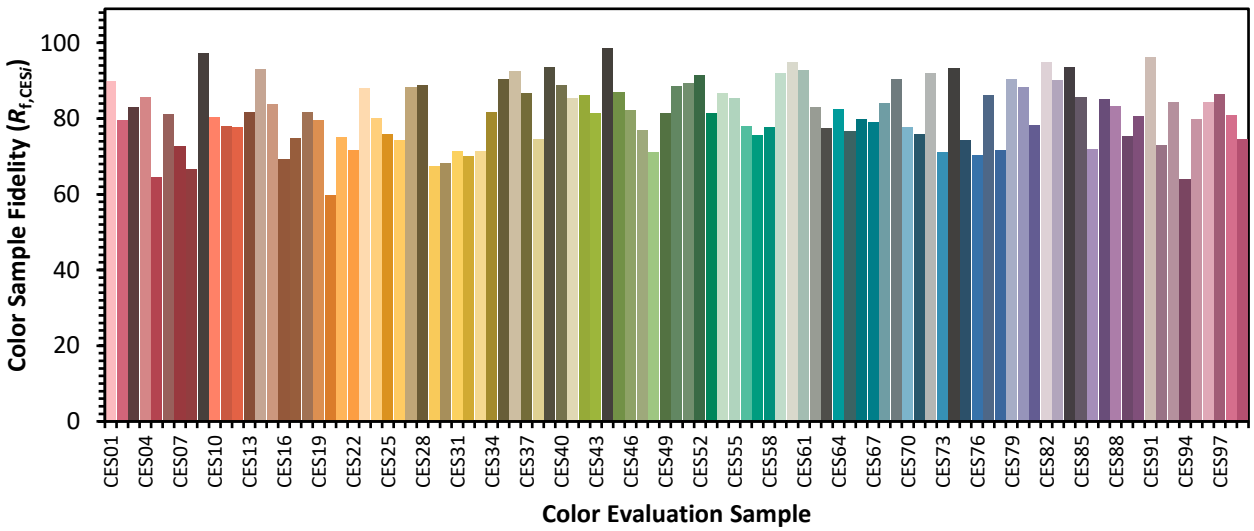
Individual Sample Fidelity Index ($R_{f,i}$)

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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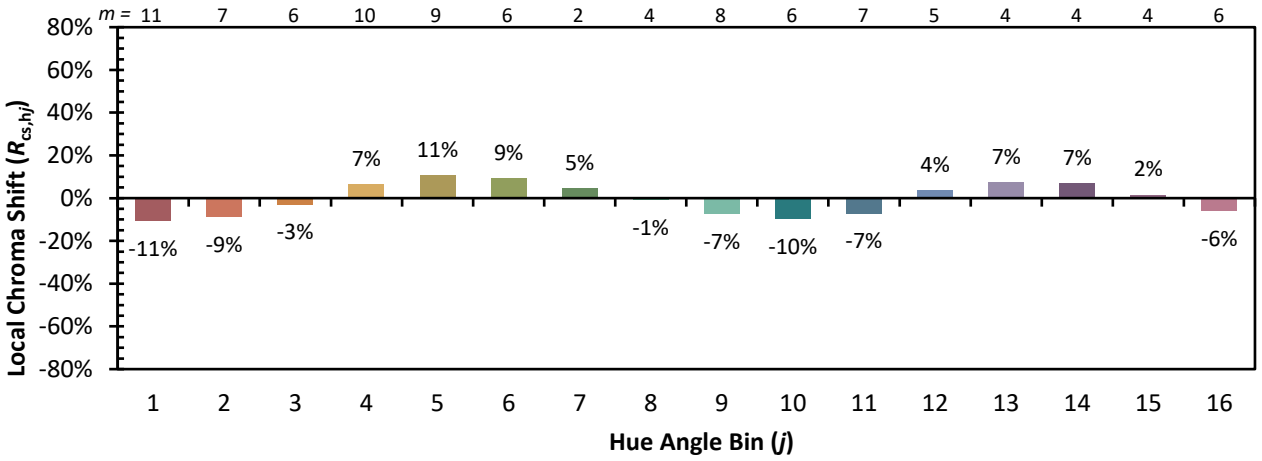
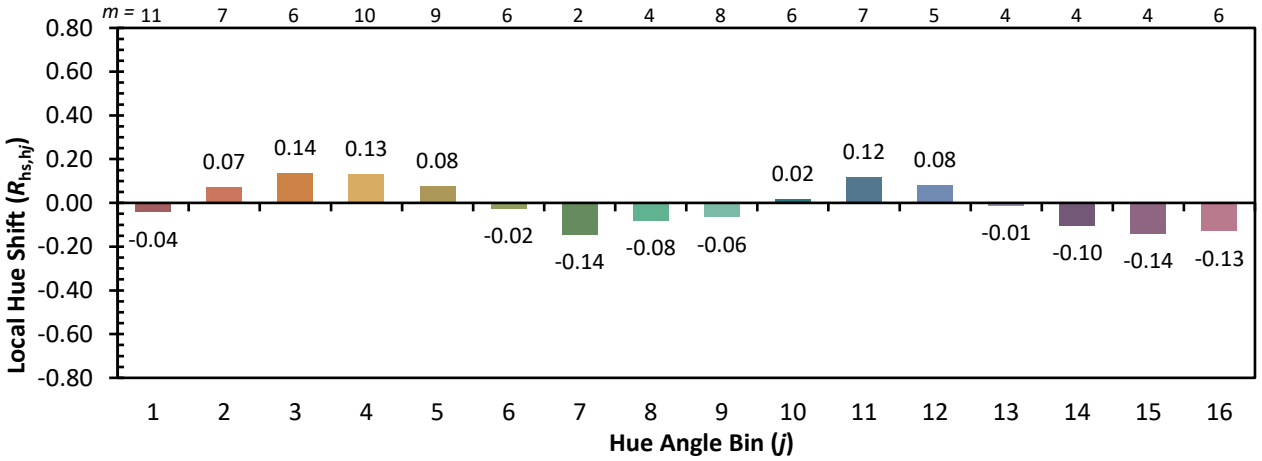
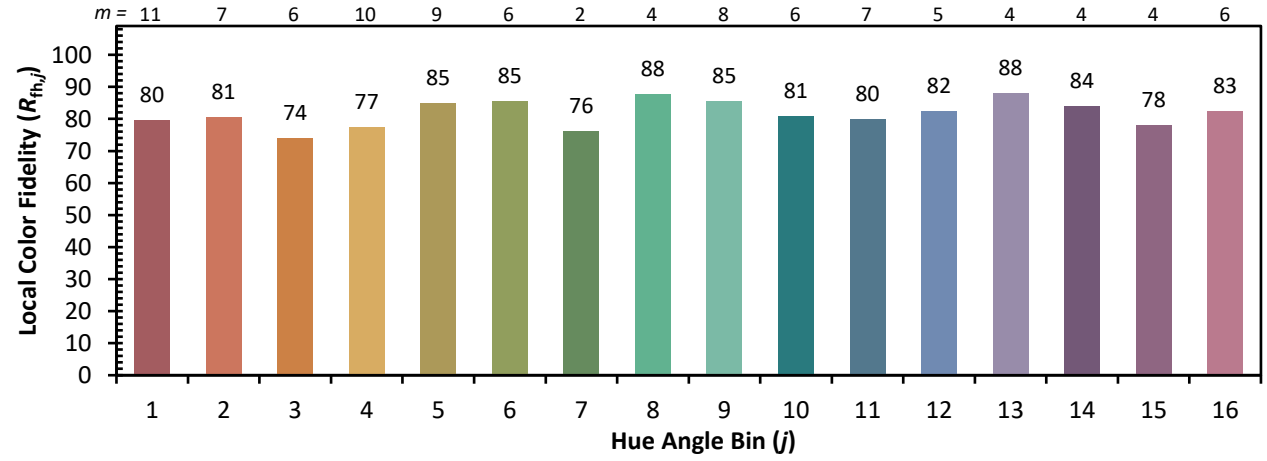
Color Rendition by Hue-Angle Bin







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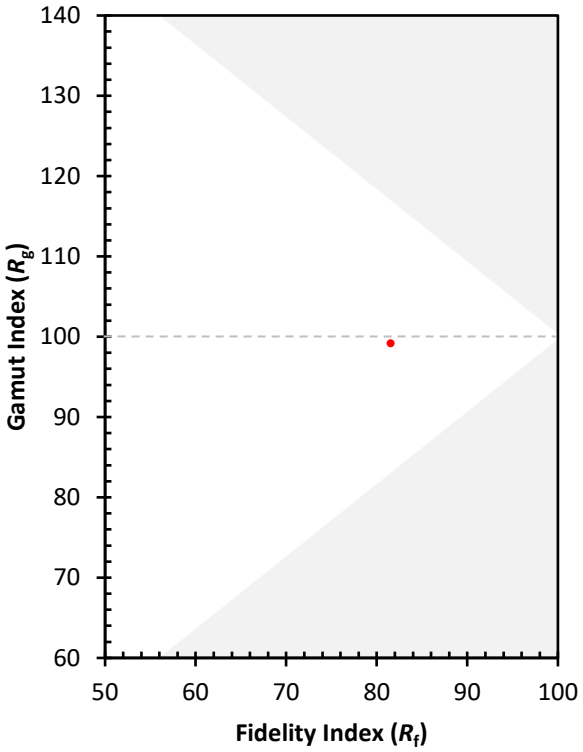
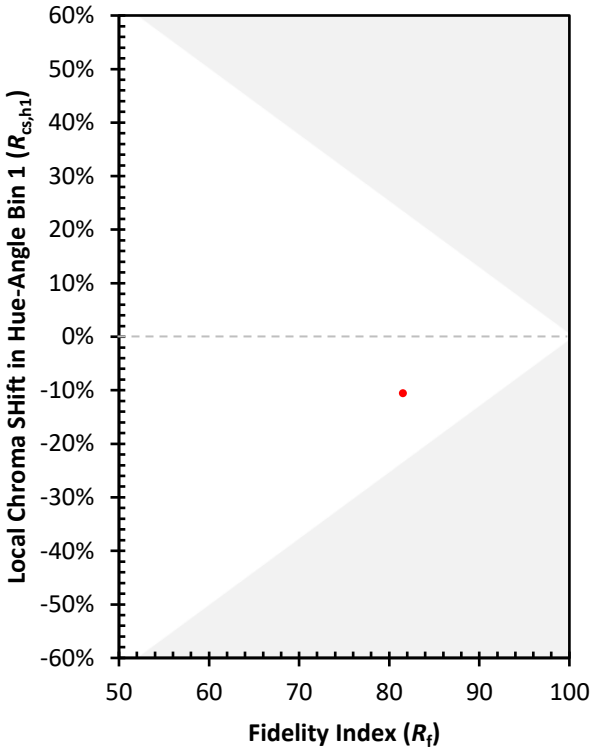
Measure Comparisons





(END OF REPORT)