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: P638463

Luminaire Tested: GWS-SA4E-830-U-AFL-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:	P638463
	TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-47)
Test Lab:	COOPER LIGHTING SOLUTIONS
Issue Date:	1/10/2023
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	McGRAW-EDISON
Catalog Number:	GWS-SA4E-830-U-AFL-W-GRSWH
Description:	GALLEON WALL SLIM LUMINAIRE. (4) LIGHTSQUARES WITH 16 LEDS EACH AND AUTOMOTIVE FRONTLINE 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:	22054.4 lumens
Efficiency:	N/A
Efficacy:	108.9 lumens/watt
Luminous Opening:	Rectangular (W 1' x L: 1' x H: 0')
IES Classification:	Type II - Short
BUG Rating:	B3 - U0 - G2

Input Watts (W):	202.6
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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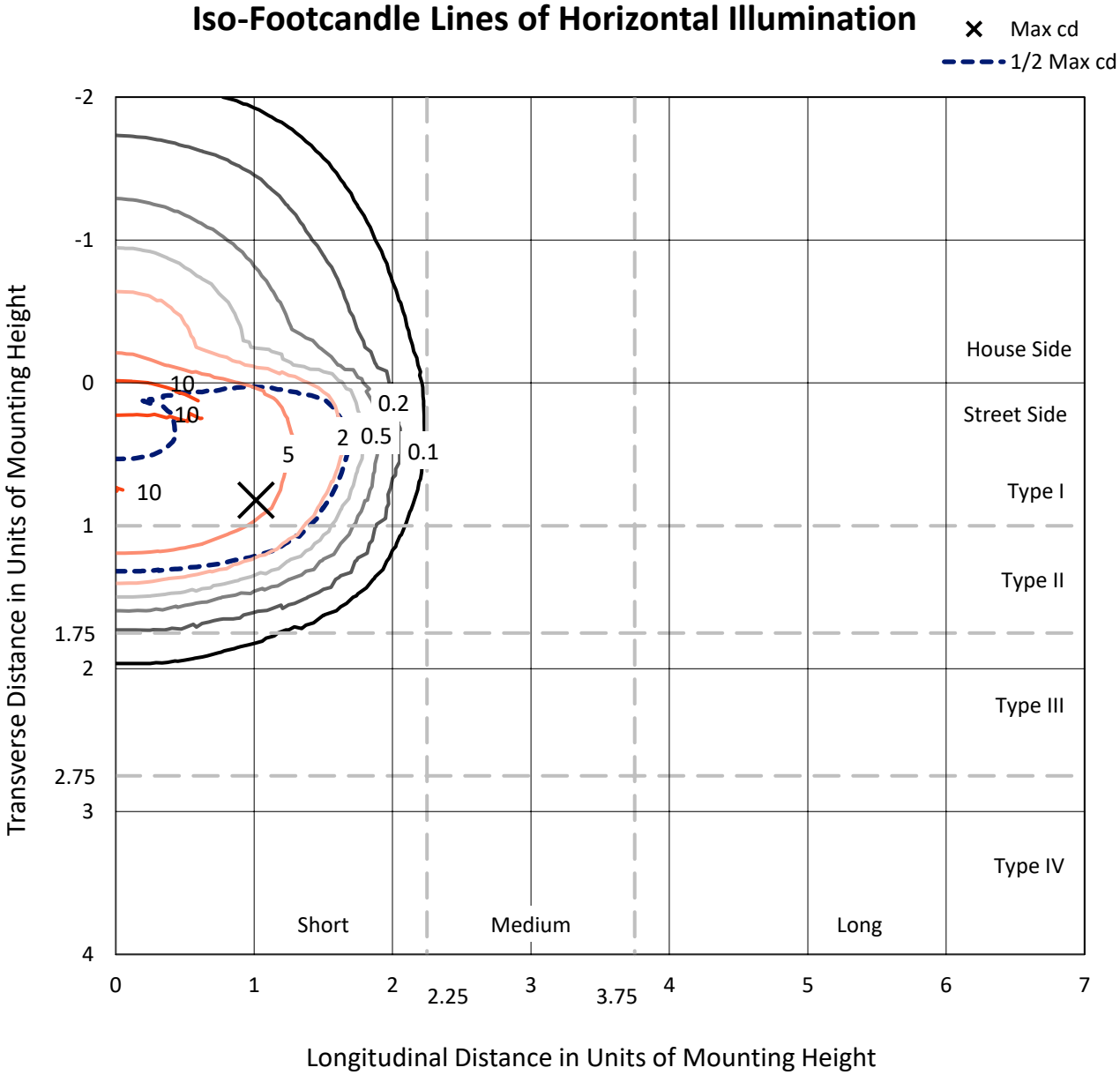
Scaled Data Report

REPORT NUMBER: P638463
CATALOG NUMBER: GWS-SA4E-830-U-AFL-W-GRSWH

Iso-Footcandle Lines of Horizontal Illumination



Based on 25 foot mounting height. Maximum calculated value = 12.8 fc
Type II - Short - N/A

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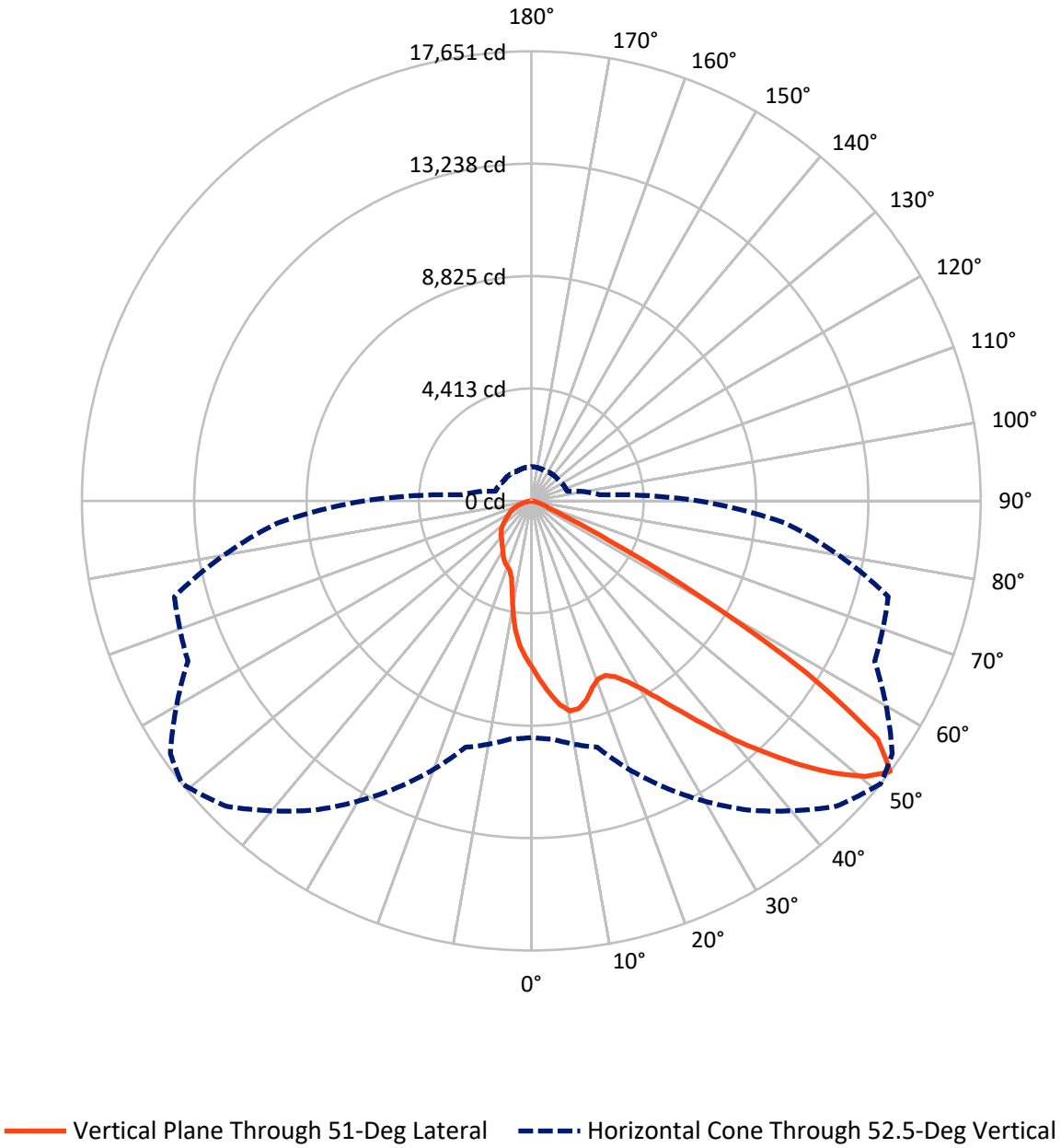
Luminous Intensity Polar Plot



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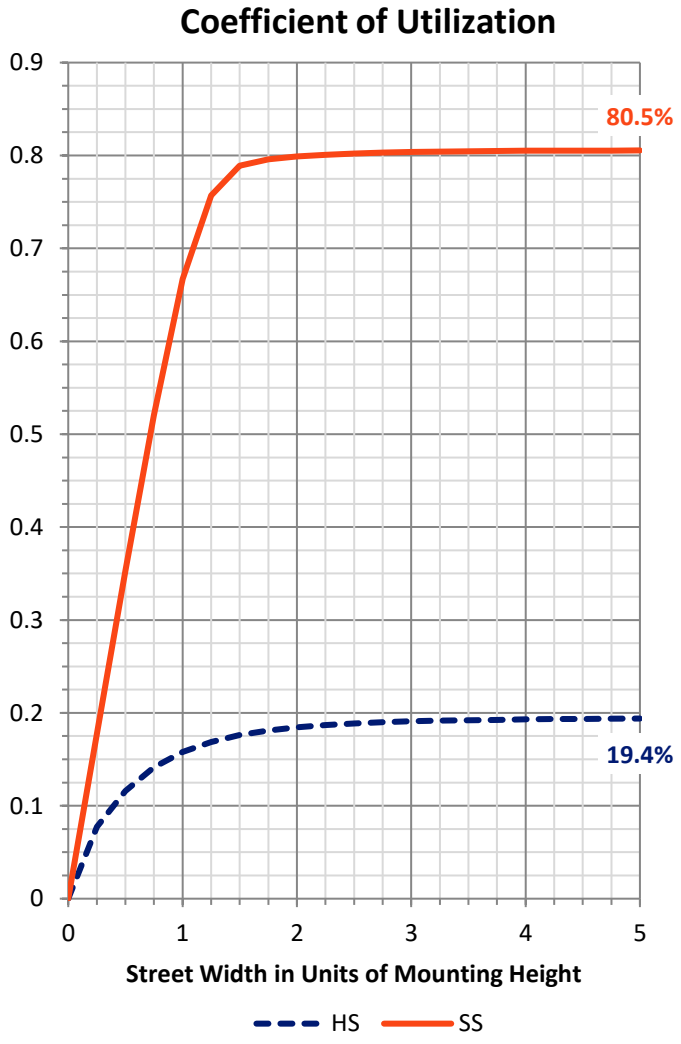
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4297.1	0.0	4297.1
	% Fixture	19.5	0.0	19.5
Street Side	Lumens	17757.3	0.0	17757.3
	% Fixture	80.5	0.0	80.5
Total	Lumens	22054.4	0.0	22054.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	612.8	2.8
10°-20°	1592.2	7.2
20°-30°	2588.8	11.7
30°-40°	4102.7	18.6
40°-50°	6187.7	28.1
50°-60°	5352.8	24.3
60°-70°	1213.5	5.5
70°-80°	357.8	1.6
80°-90°	46.1	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°	22054.4	100.0
0°-180°	22054.4	100.0



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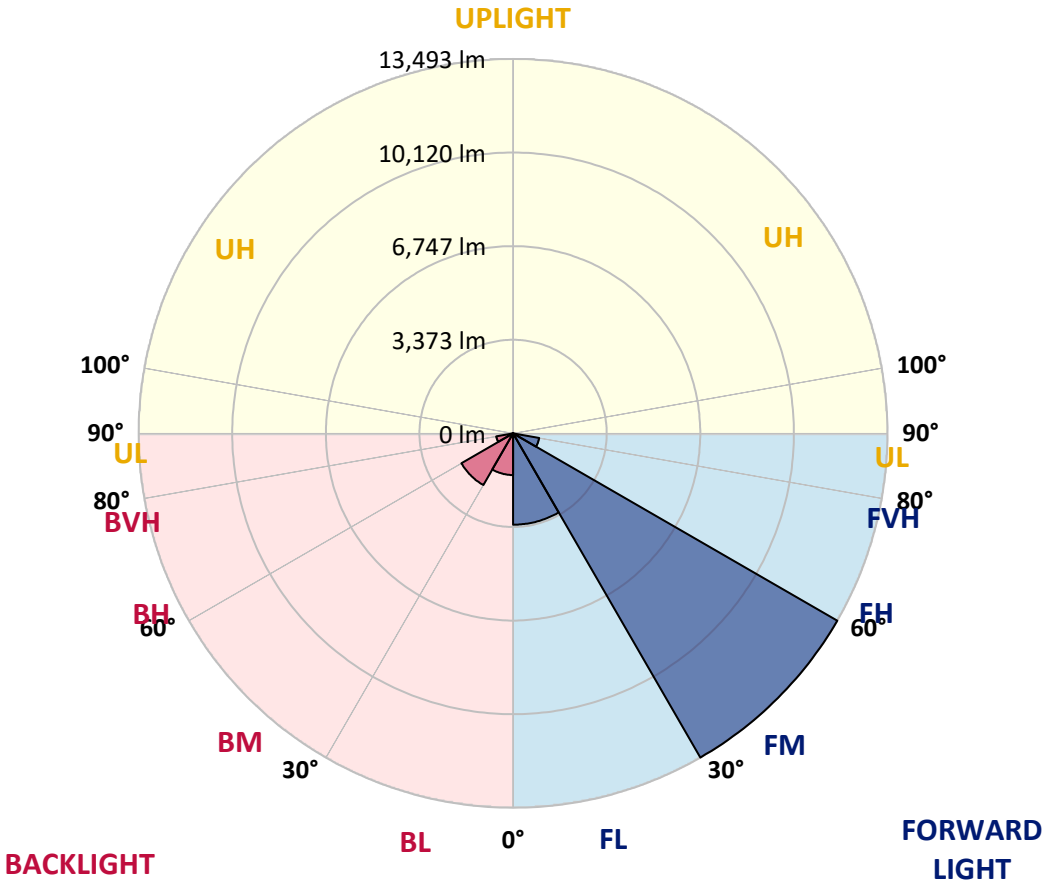
LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	3291.7	14.9			
FM	(30°-60°)	13493.2	61.2			
FH	(60°-80°)	955.0	4.3			G1/1800
FVH	(80°-90°)	17.4	0.1			G1/100
BL	(0°-30°)	1502.1	6.8	B3/2500		
BM	(30°-60°)	2150.0	9.7	B2/2500		
BH	(60°-80°)	616.3	2.8	B2/1000		G2/1000
BVH	(80°-90°)	28.7	0.1			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G2
Type II Short



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REPORT NUMBER: P638463
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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	51°	55°	65°	75°	85°
0°	6566.7	6566.7	6566.7	6566.7	6566.7	6566.7	6566.7	6566.7	6566.7	6566.7	6566.7
2.5°	7317.8	7359.6	7295.2	7270.8	7230.7	7161.0	7080.8	7058.2	6885.6	6772.3	6645.1
5°	8053.3	8075.9	8023.6	7971.4	7872.0	7748.3	7593.2	7560.1	7246.4	6986.7	6716.6
7.5°	8217.1	8208.4	8253.7	8283.3	8271.1	8222.3	8084.6	8020.2	7645.5	7234.2	6835.1
10°	7568.8	7520.0	7687.3	7886.0	8124.7	8400.1	8384.4	8379.2	8053.3	7567.0	6986.7
12.5°	6709.6	6685.2	6821.1	7070.4	7521.7	8131.7	8360.0	8537.7	8421.0	7884.2	7155.7
15°	6218.1	6209.4	6301.8	6481.3	6840.3	7610.6	8098.6	8450.6	8736.4	8224.1	7335.2
17.5°	6129.3	6134.5	6165.9	6268.7	6526.6	7161.0	7725.6	8217.1	8982.2	8597.0	7560.1
20°	6388.9	6423.8	6369.8	6385.4	6524.9	6998.9	7471.2	7981.8	9139.0	8971.7	7802.3
22.5°	6965.8	6953.6	6835.1	6765.4	6767.1	7098.2	7443.3	7872.0	9241.8	9335.9	8021.9
25°	7619.3	7605.4	7464.2	7309.1	7211.5	7368.4	7643.7	7988.8	9334.2	9668.8	8197.9
27.5°	8391.4	8347.8	8190.9	7992.3	7776.2	7844.1	8030.6	8304.2	9477.1	9996.4	8314.7
30°	9139.0	9189.5	8964.7	8729.5	8501.2	8459.3	8567.4	8814.8	9768.1	10379.8	8454.1
32.5°	10130.6	10113.2	9864.0	9557.3	9231.4	9200.0	9285.4	9511.9	10291.0	10909.6	8666.7
35°	11331.4	11334.9	10981.1	10566.3	10102.7	10019.1	10162.0	10381.6	11070.0	11627.7	9003.1
37.5°	12579.2	12574.0	12265.5	11795.0	11162.3	11043.8	11207.6	11371.5	12044.2	12605.3	9525.9
40°	13454.1	13488.9	13344.3	13096.8	12497.3	12208.0	12352.6	12465.9	13103.8	13755.6	10214.3
42.5°	13950.7	14003.0	14034.4	14182.5	13867.1	13558.6	13506.3	13565.6	14050.1	14823.9	10860.8
45°	14057.0	14126.8	14355.1	14904.0	15026.0	14938.9	14768.1	14625.2	14755.9	15582.0	11284.3
47.5°	13588.2	13710.2	14198.2	15158.5	15871.3	16144.9	15954.9	15737.1	15163.7	15777.1	11240.8
50°	11730.5	11873.4	12973.1	14639.1	15991.5	16988.4	17005.8	16683.4	15114.9	15214.2	10693.5
52.5°	9287.1	9384.7	10013.9	12410.1	14811.7	16953.5	17650.6	17305.5	14879.6	14510.2	10008.6
55°	5550.7	5707.5	6294.8	8187.5	11538.8	15026.0	16510.8	16678.2	14764.6	13919.4	9541.6
57.5°	1873.5	1950.1	2511.3	3616.2	6800.2	11002.0	12757.0	13436.6	13403.5	13016.6	8630.1
60°	892.3	909.7	1023.0	1371.5	2722.2	5749.3	7551.4	8335.6	9050.1	9121.6	5369.4
62.5°	679.7	690.1	747.6	822.6	1094.4	2422.4	3461.1	4060.6	4337.7	3722.5	1955.4
65°	568.1	576.9	620.4	667.5	744.2	1049.1	1328.0	1531.9	1380.3	1075.3	932.4
67.5°	474.0	481.0	514.1	564.7	616.9	702.3	737.2	758.1	794.7	892.3	857.4
70°	371.2	378.2	413.0	456.6	507.1	528.1	561.2	582.1	655.3	780.8	777.3
72.5°	285.8	294.5	313.7	341.6	383.4	404.3	440.9	465.3	507.1	608.2	650.0
75°	209.1	214.4	231.8	240.5	245.7	240.5	277.1	305.0	360.7	399.1	409.5
77.5°	85.4	95.9	92.4	92.4	109.8	132.4	151.6	169.0	207.4	230.0	231.8
80°	34.9	38.3	45.3	50.5	61.0	78.4	90.6	97.6	115.0	129.0	139.4
82.5°	20.9	22.7	26.1	27.9	34.9	45.3	52.3	57.5	71.5	85.4	90.6
85°	10.5	10.5	12.2	13.9	17.4	20.9	24.4	27.9	36.6	45.3	50.5
87.5°	1.7	1.7	1.7	3.5	5.2	7.0	8.7	10.5	12.2	13.9	17.4
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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Scaled Data Report

REPORT NUMBER: P638463
CATALOG NUMBER: GWS-SA4E-830-U-AFL-W-GRSWH

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	6566.7	6566.7	6566.7	6566.7	6566.7	6566.7	6566.7	6566.7	6566.7	6566.7	6566.7
2.5°	6570.2	6476.1	6366.3	6279.1	6178.1	6103.1	5996.8	5930.6	5867.9	5815.6	5777.2
5°	6577.2	6418.6	6190.3	5988.1	5779.0	5580.3	5376.4	5210.8	5062.7	4939.0	4928.5
7.5°	6617.2	6388.9	6031.7	5677.9	5270.1	4876.2	4482.4	4161.7	3917.7	3790.5	3764.3
10°	6685.2	6385.4	5869.6	5304.9	4609.6	3975.2	3508.2	3264.2	3123.0	3072.5	3055.0
12.5°	6756.7	6376.7	5662.2	4778.6	3813.1	3257.2	3001.0	2971.4	2997.5	3001.0	2999.3
15°	6843.8	6371.5	5400.8	4161.7	3231.1	2924.3	2941.8	3004.5	3065.5	3079.4	3079.4
17.5°	6950.1	6359.3	5045.3	3558.7	2866.8	2859.9	2952.2	3035.9	3093.4	3103.8	3103.8
20°	7061.6	6327.9	4607.8	3067.2	2718.7	2819.8	2919.1	2983.6	3023.7	3037.6	3039.4
22.5°	7138.3	6244.3	4104.2	2703.0	2626.3	2743.1	2814.5	2880.8	2880.8	2845.9	2835.5
25°	7154.0	6064.8	3558.7	2453.8	2516.5	2624.6	2697.8	2659.4	2588.0	2560.1	2558.4
27.5°	7096.5	5803.4	3020.2	2276.0	2384.1	2492.1	2479.9	2424.2	2392.8	2364.9	2375.4
30°	7026.8	5489.7	2553.1	2129.6	2230.7	2337.0	2295.2	2276.0	2253.4	2222.0	2229.0
32.5°	6979.7	5139.4	2194.1	2016.4	2127.9	2145.3	2175.0	2173.2	2152.3	2093.0	2089.6
35°	6993.7	4785.6	1953.6	1924.0	2042.5	2035.5	2091.3	2080.8	1936.2	1854.3	1849.1
37.5°	7105.2	4445.8	1812.5	1850.8	1906.6	1950.1	1998.9	1873.5	1822.9	1770.6	1774.1
40°	7317.8	4130.3	1735.8	1810.7	1824.7	1889.1	1775.9	1774.1	1751.5	1704.4	1702.7
42.5°	7558.3	3863.7	1683.5	1791.6	1772.4	1784.6	1664.3	1678.3	1676.5	1646.9	1638.2
45°	7704.7	3618.0	1641.7	1720.1	1725.3	1603.3	1566.7	1582.4	1591.1	1575.4	1573.7
47.5°	7553.1	3335.6	1598.1	1610.3	1655.6	1521.4	1476.1	1477.9	1493.5	1495.3	1488.3
50°	7127.9	3020.2	1545.8	1516.2	1486.6	1436.0	1394.2	1385.5	1401.2	1416.9	1422.1
52.5°	*6578.9*	*2718.7*	*1458.7*	*1413.4*	*1343.7*	*1343.7*	*1324.5*	*1296.6*	*1317.5*	*1338.4*	*1345.4*
55°	6176.3	2495.6	1334.9	1284.4	1207.7	1233.9	1230.4	1206.0	1233.9	1249.6	1254.8
57.5°	5352.0	2005.9	1174.6	1158.9	1094.4	1125.8	1132.8	1101.4	1087.5	1091.0	1096.2
60°	3177.0	1294.9	1059.6	1057.9	1000.3	1036.9	1057.9	1026.5	984.7	989.9	996.9
62.5°	1425.6	989.9	914.9	908.0	906.2	953.3	975.9	946.3	887.1	892.3	899.3
65°	897.5	855.7	794.7	794.7	822.6	862.7	880.1	855.7	787.7	779.0	786.0
67.5°	833.0	796.4	733.7	721.5	735.4	768.6	770.3	723.2	683.2	676.2	676.2
70°	747.6	719.8	658.8	634.4	629.1	627.4	622.2	610.0	583.8	576.9	580.3
72.5°	618.7	599.5	561.2	535.0	521.1	519.3	498.4	488.0	465.3	461.8	460.1
75°	409.5	414.8	414.8	411.3	399.1	393.9	371.2	360.7	334.6	324.2	322.4
77.5°	242.2	247.5	254.4	256.2	254.4	254.4	233.5	221.3	195.2	181.2	177.8
80°	148.1	151.6	155.1	160.3	153.4	148.1	129.0	116.8	104.6	95.9	94.1
82.5°	95.9	99.3	101.1	104.6	101.1	94.1	78.4	71.5	62.7	55.8	54.0
85°	54.0	55.8	59.3	59.3	54.0	48.8	40.1	34.9	29.6	26.1	26.1
87.5°	19.2	19.2	19.2	20.9	17.4	15.7	10.5	7.0	5.2	5.2	5.2
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

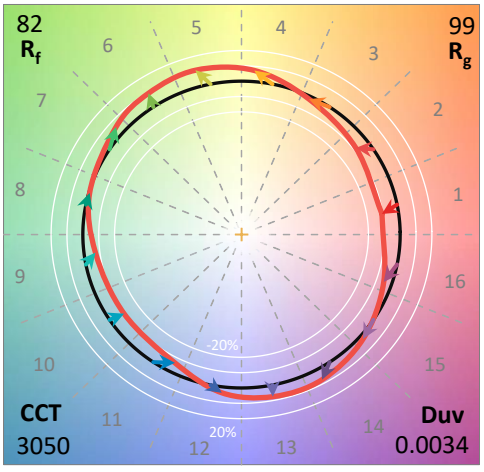
Test Information

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

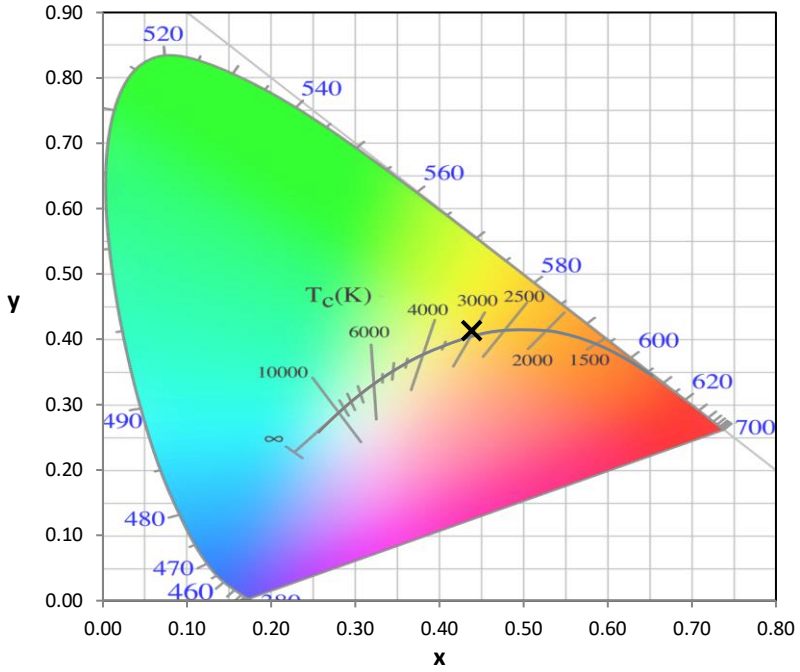
Stabilization Time:	20M
Operation Time:	1H 20M
Sphere Temperature (°C):	24.2

REPORT NUMBER: SP1-2408-195-9

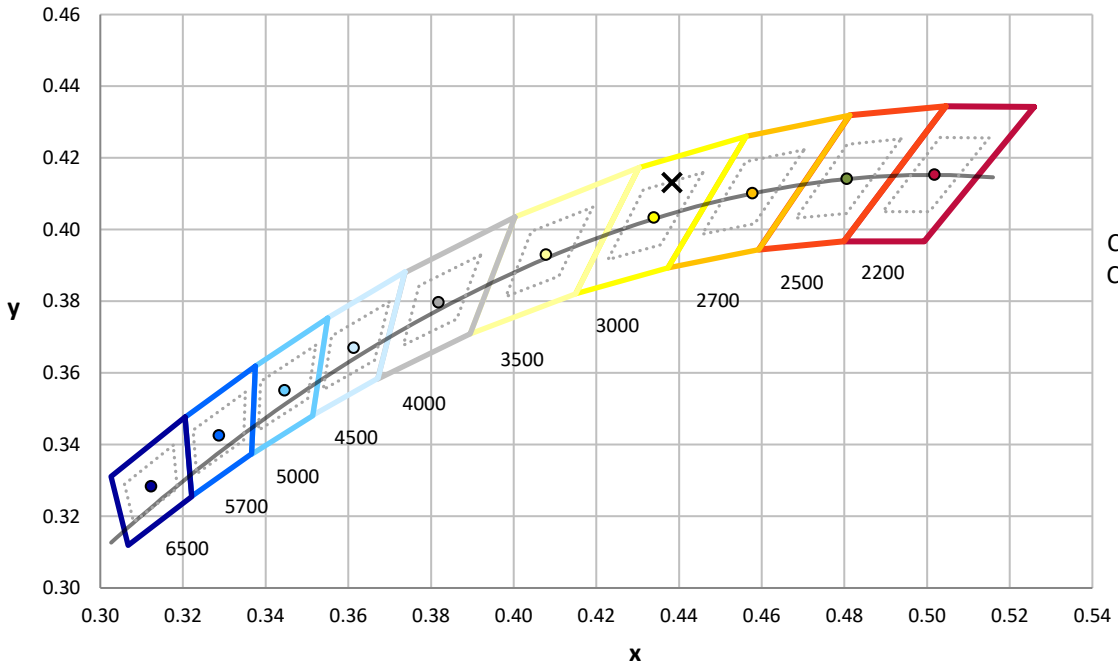
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

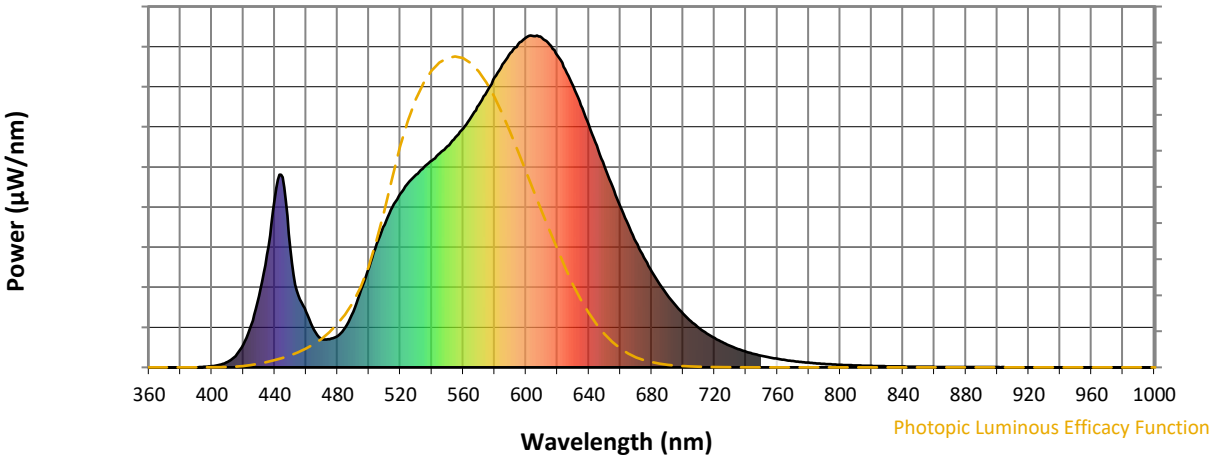


CCT = 3050K
CIE x = 0.4383
CIE y = 0.4131
Duv = 0.0034

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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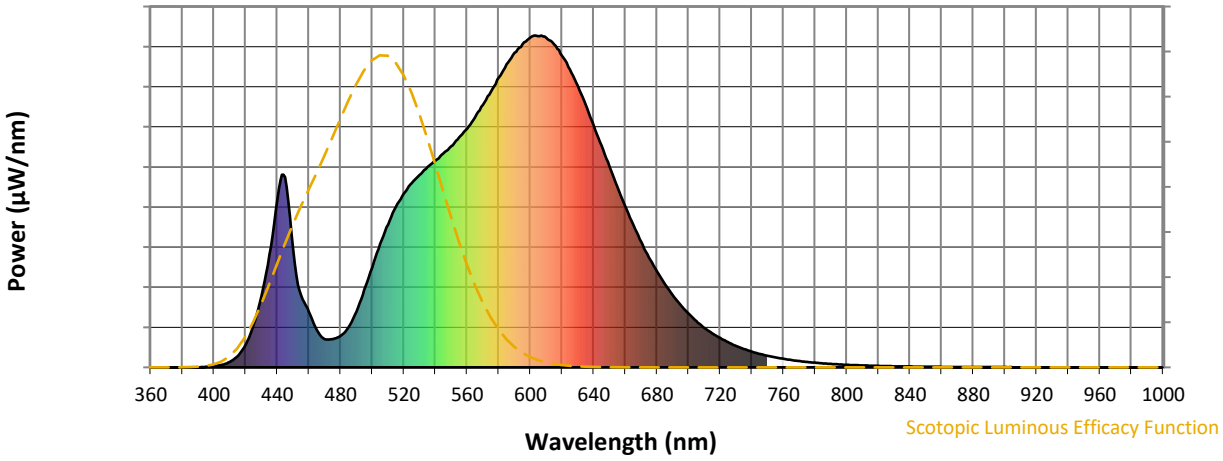
Scotopic Flux vs. Wavelength



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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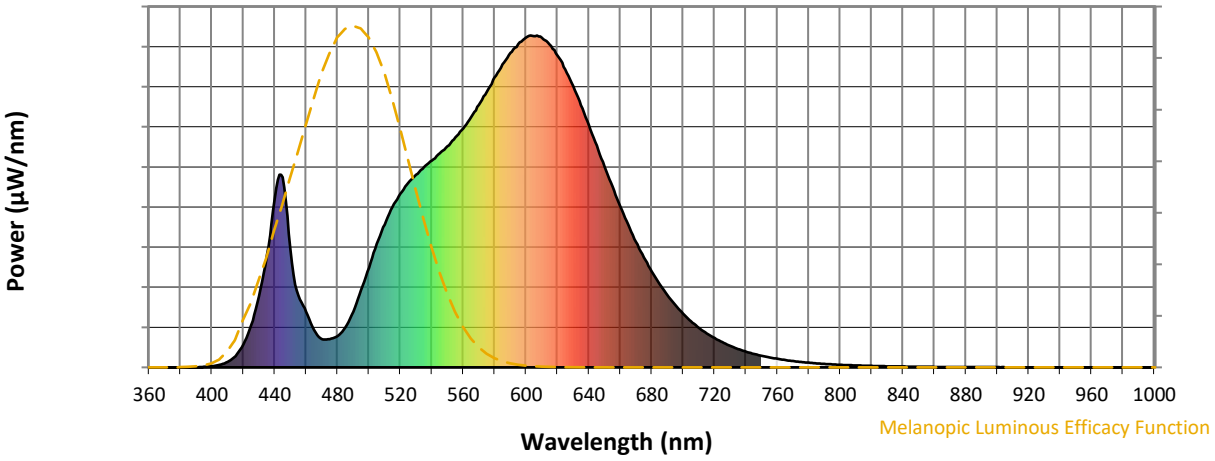
Melanopic Flux vs. Wavelength



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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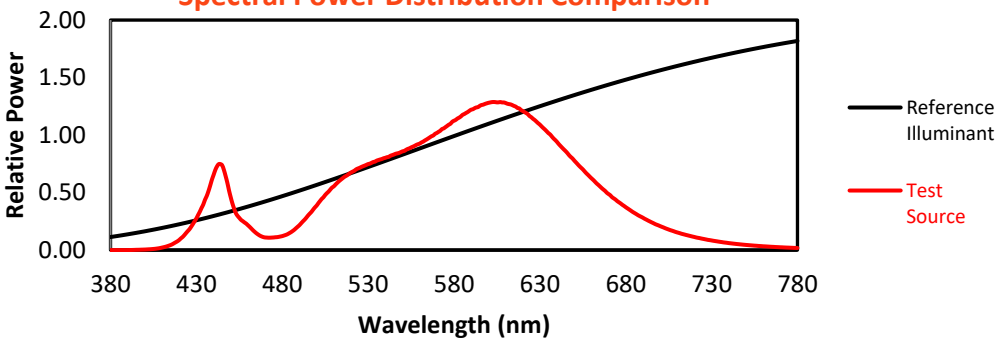
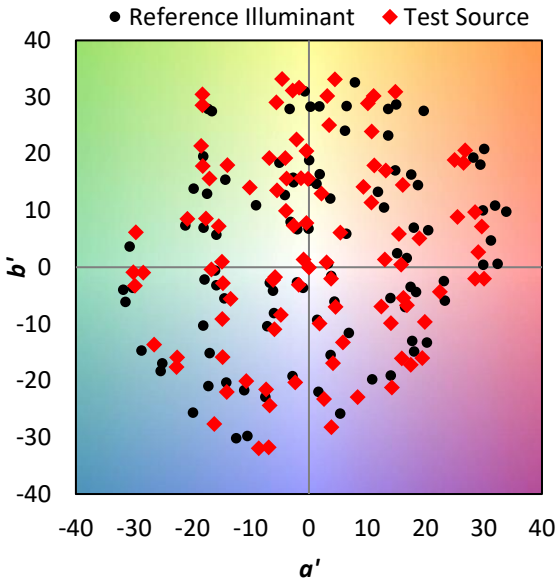
Summary

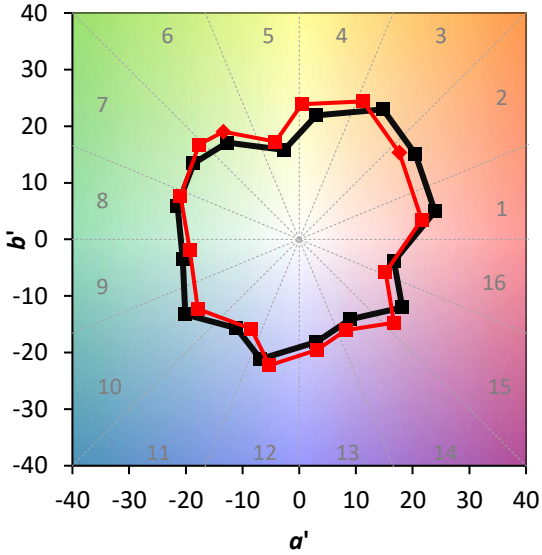
R_f = 81.5
R_g = 99.2
CIE R_a = 81.0
R_9 = 7.1

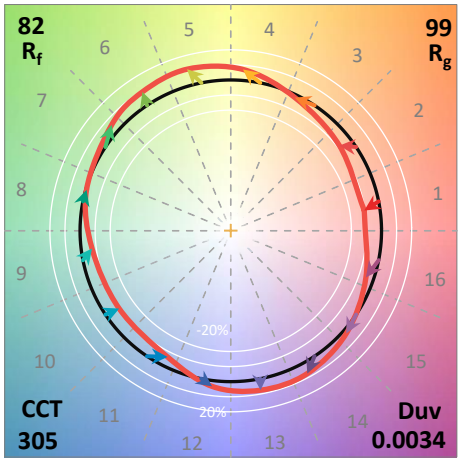
Spectral Power Distribution Comparison

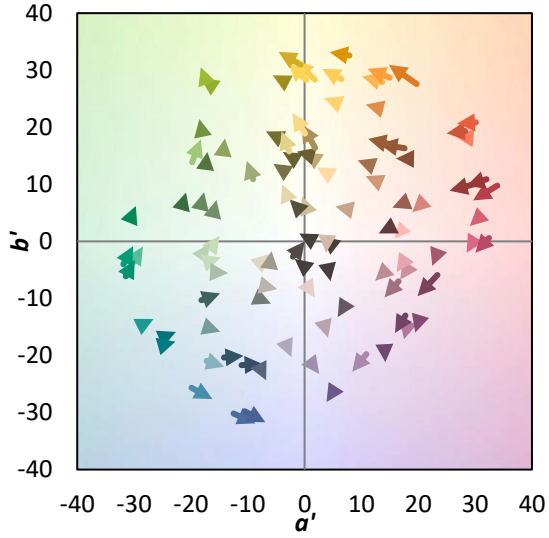


Color Vector Graphics









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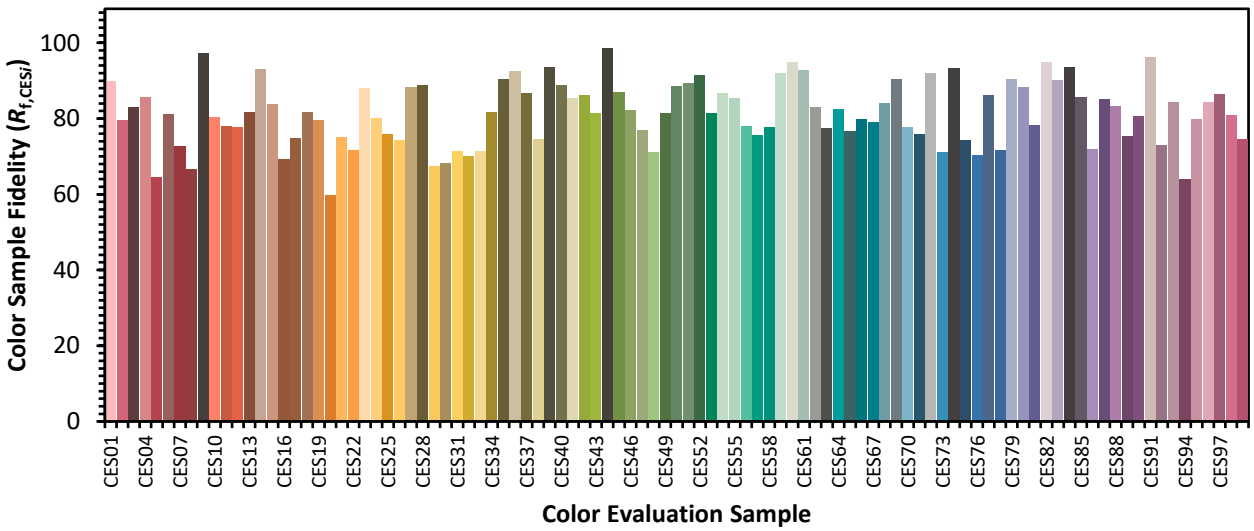
Individual Sample Fidelity Index ($R_{f,i}$)

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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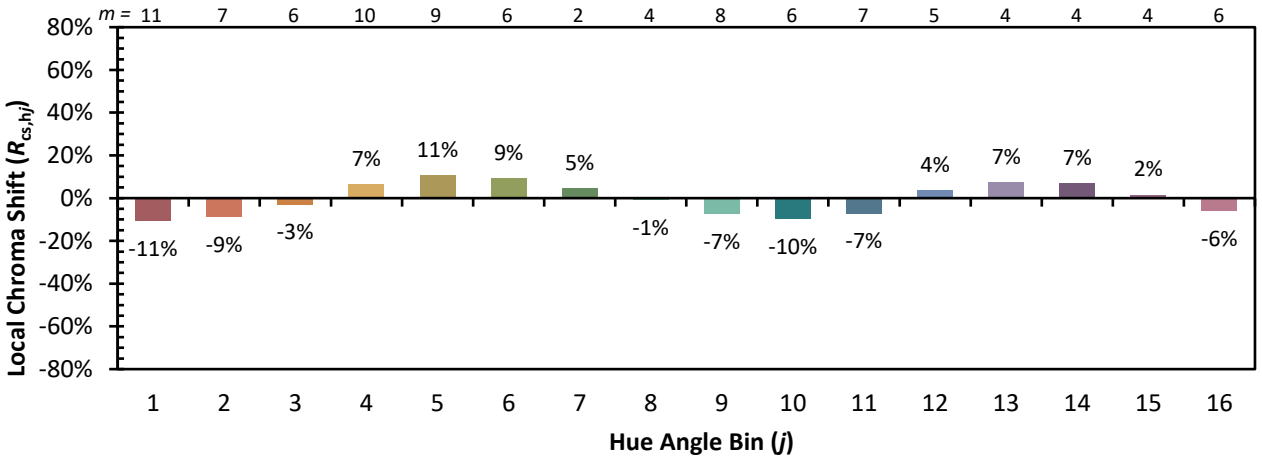
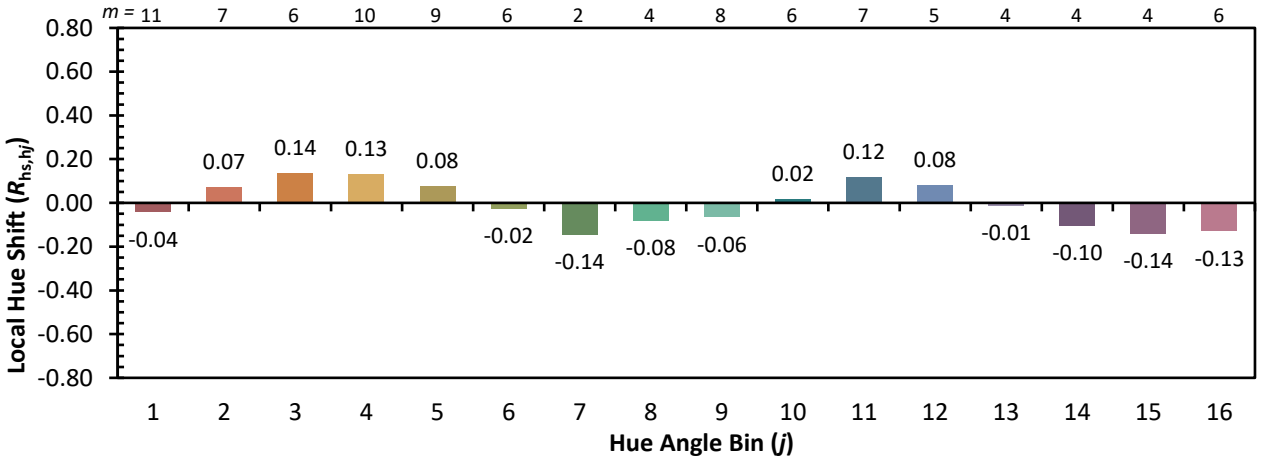
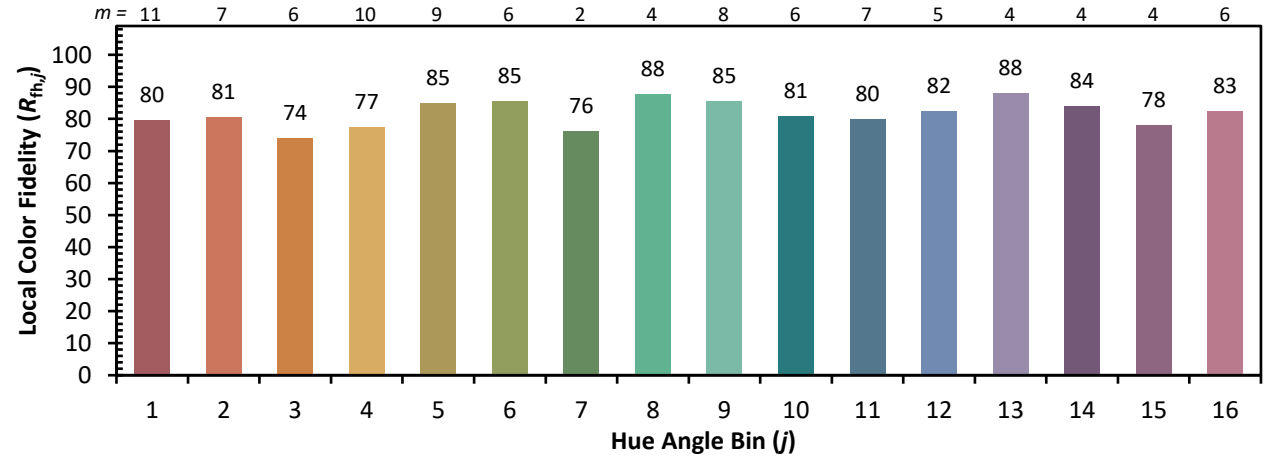
Color Rendition by Hue-Angle Bin







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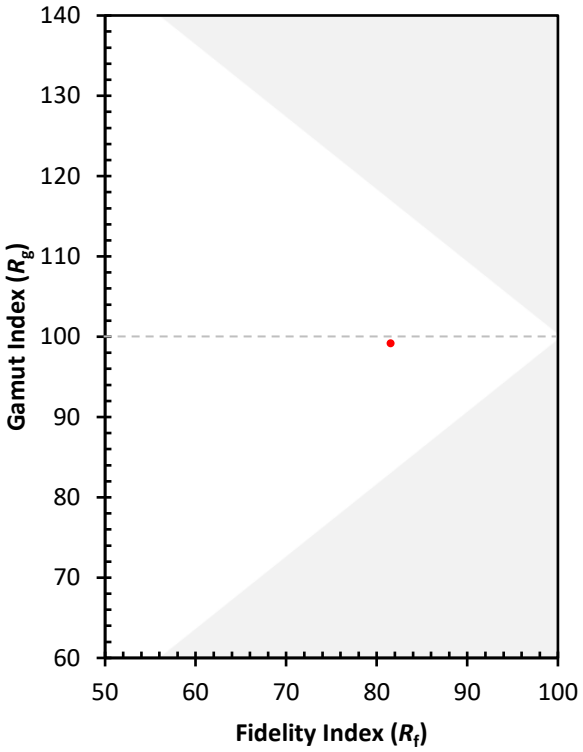
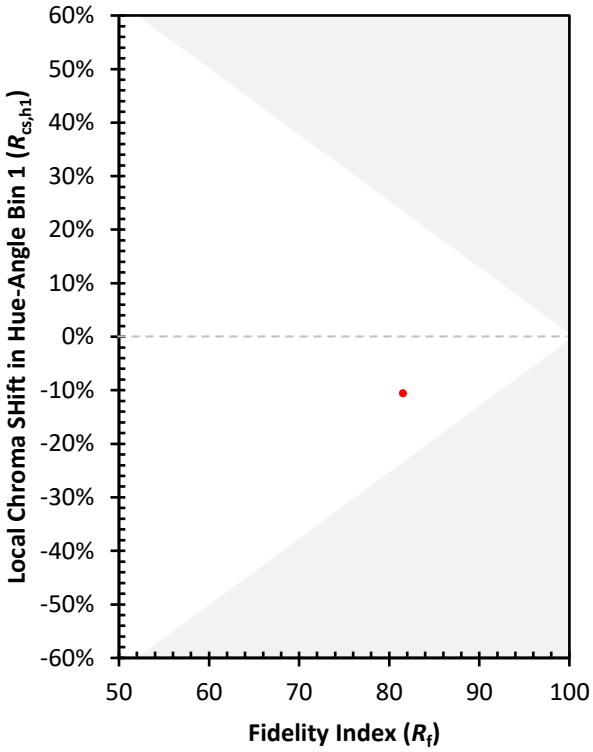
Measure Comparisons





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