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: P637967

Luminaire Tested: GWS-SA4D-830-U-AFL-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:	P637967
	TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-46)
Test Lab:	COOPER LIGHTING SOLUTIONS
Issue Date:	1/10/2023
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	McGRAW-EDISON
Catalog Number:	GWS-SA4D-830-U-AFL-W-GRSBK
Description:	GALLEON WALL SLIM LUMINAIRE. (4) LIGHTSQUARES WITH 16 LEDS EACH AND AUTOMOTIVE FRONTLINE 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:	14651.5 lumens
Efficiency:	N/A
Efficacy:	90.4 lumens/watt
Luminous Opening:	Rectangular (W 1' x L: 1' x H: 0')
IES Classification:	Type II - Short
BUG Rating:	B2 - U0 - G0

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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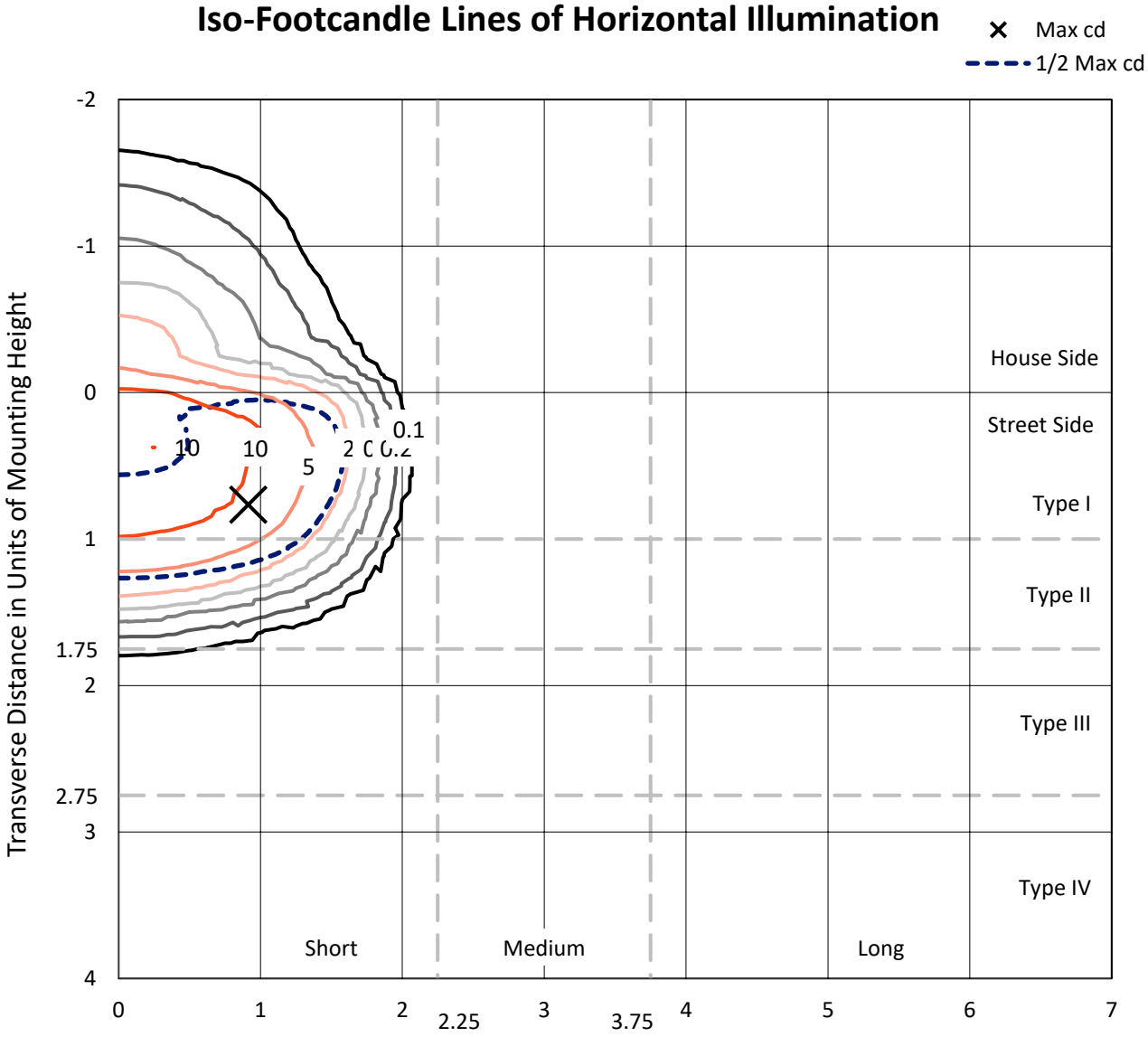
Scaled Data Report

REPORT NUMBER: P637967
CATALOG NUMBER: GWS-SA4D-830-U-AFL-W-GRSBK

Iso-Footcandle Lines of Horizontal Illumination



Based on 20 foot mounting height. Maximum calculated value = 14.2 fc
Type II - Short - N/A

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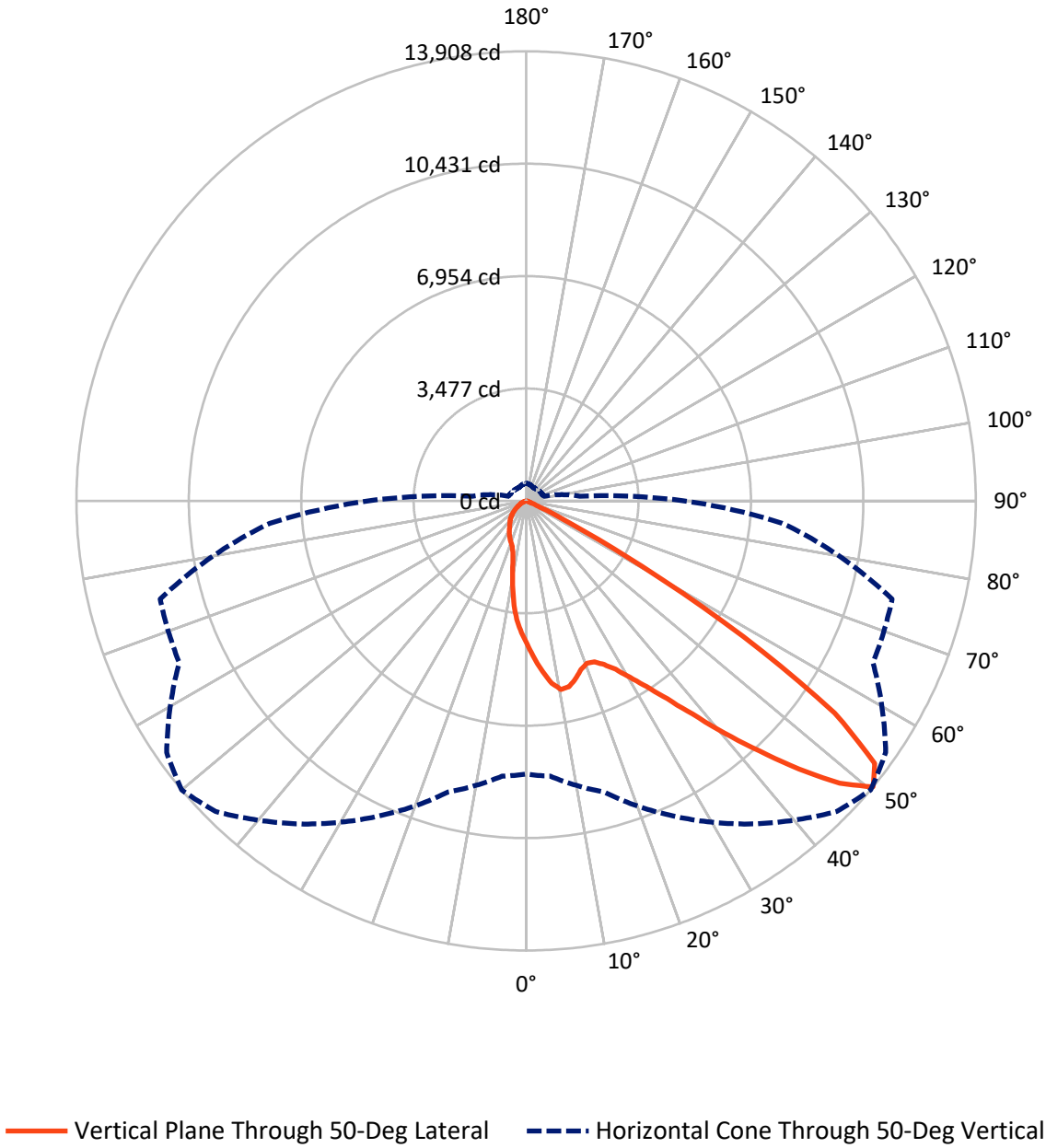
Luminous Intensity Polar Plot



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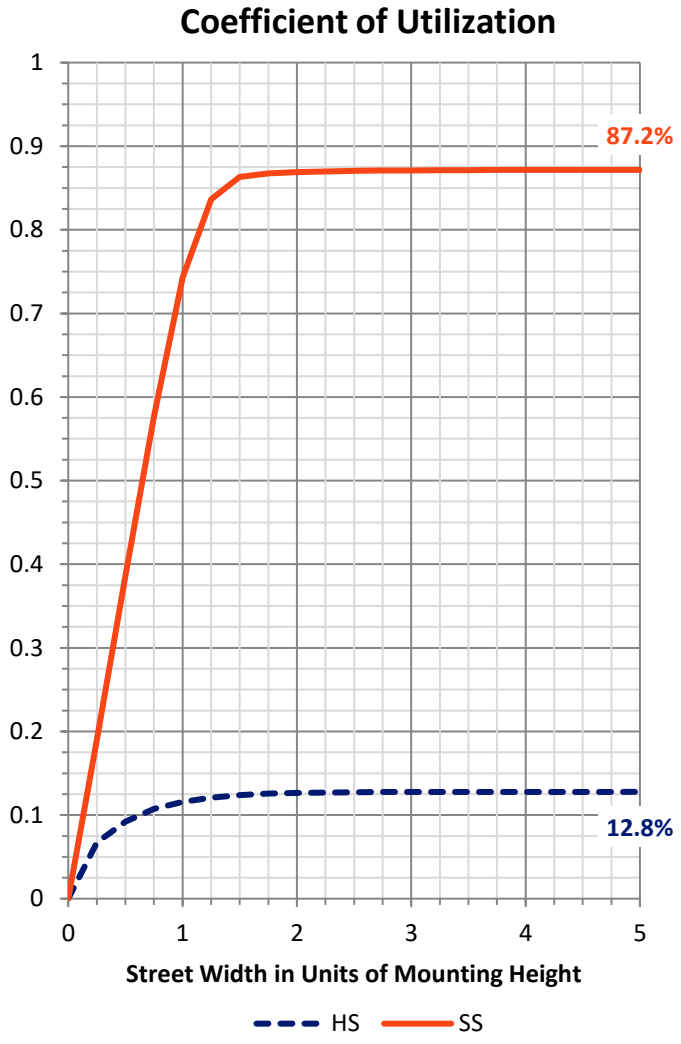
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1882.5	0.0	1882.5
	% Fixture	12.8	0.0	12.8
Street Side	Lumens	12769.0	0.0	12769.0
	% Fixture	87.2	0.0	87.2
Total	Lumens	14651.5	0.0	14651.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	411.8	2.8
10°-20°	1062.4	7.3
20°-30°	1753.3	12.0
30°-40°	2893.4	19.7
40°-50°	4578.0	31.2
50°-60°	3466.1	23.7
60°-70°	433.8	3.0
70°-80°	49.1	0.3
80°-90°	3.8	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°	14651.5	100.0
0°-180°	14651.5	100.0



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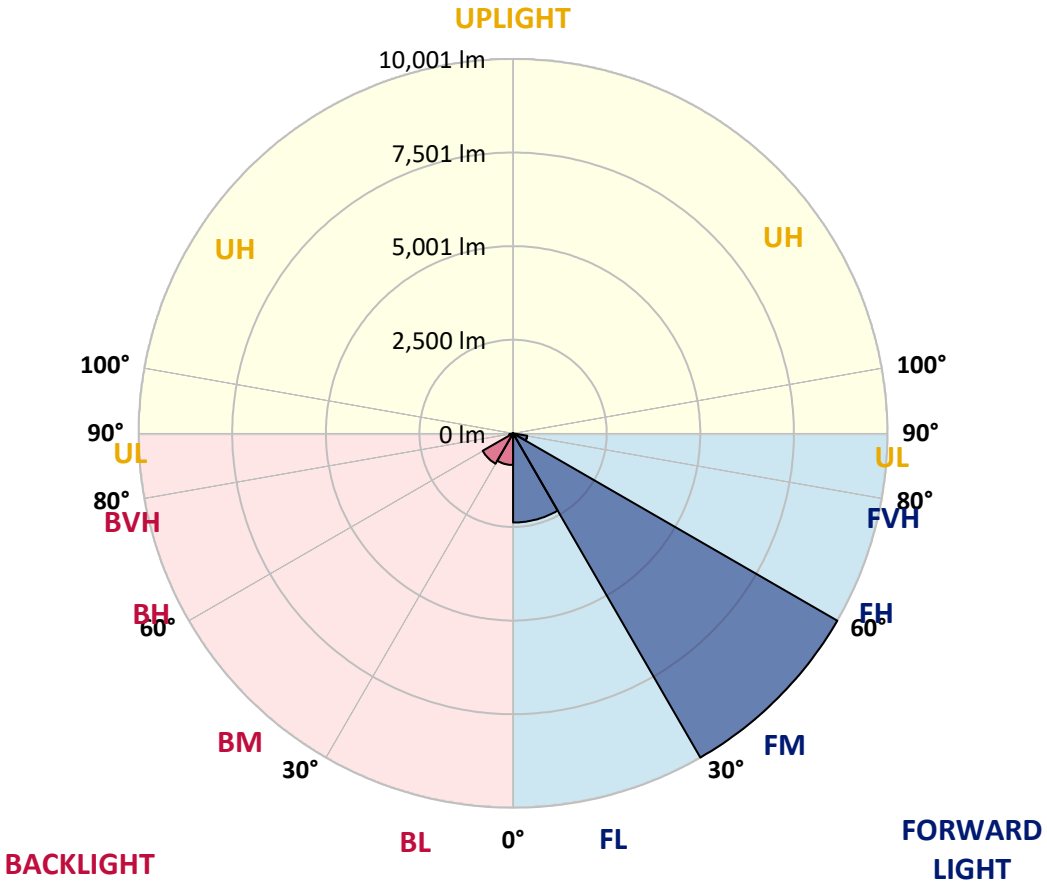
LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	2382.5	16.3			
FM	(30°-60°)	10001.2	68.3			
FH	(60°-80°)	383.5	2.6			G0/660
FVH	(80°-90°)	1.8	0.0			G0/10
BL	(0°-30°)	844.9	5.8	B2/1000		
BM	(30°-60°)	936.2	6.4	B1/1000		
BH	(60°-80°)	99.3	0.7	B0/110		G0/110
BVH	(80°-90°)	2.0	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-G0
Type II Short



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REPORT NUMBER: P637967
CATALOG NUMBER: GWS-SA4D-830-U-AFL-W-GRSBK

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	50°	55°	65°	75°	85°
0°	4438.8	4438.8	4438.8	4438.8	4438.8	4438.8	4438.8	4438.8	4438.8	4438.8	4438.8
2.5°	5058.0	5098.4	5087.3	5034.3	4977.1	4936.7	4873.9	4854.4	4712.2	4613.1	4508.5
5°	5668.8	5681.4	5667.4	5603.3	5502.9	5406.6	5303.4	5243.5	5005.0	4790.2	4571.3
7.5°	5815.2	5799.9	5826.4	5858.5	5844.5	5802.7	5693.9	5628.4	5343.9	4993.8	4661.9
10°	5357.8	5323.0	5422.0	5587.9	5762.2	5958.9	5931.0	5936.6	5674.4	5250.4	4780.5
12.5°	4751.2	4737.3	4811.2	5003.6	5345.3	5791.5	5898.9	6078.8	5977.0	5528.0	4915.8
15°	4484.8	4491.8	4536.4	4657.8	4903.2	5458.2	5716.2	6041.1	6247.5	5797.1	5065.0
17.5°	4525.3	4550.4	4549.0	4589.4	4738.6	5183.5	5484.7	5922.6	6456.7	6106.7	5236.5
20°	4800.0	4825.1	4787.5	4756.8	4807.0	5113.8	5363.4	5802.7	6597.6	6419.1	5417.8
22.5°	5211.4	5240.7	5151.4	5063.6	5031.5	5228.1	5409.4	5753.9	6705.0	6705.0	5579.6
25°	5709.2	5749.7	5611.6	5455.4	5366.2	5469.4	5606.1	5864.0	6815.1	6961.5	5689.7
27.5°	6265.7	6267.1	6148.5	5972.8	5805.5	5818.0	5900.3	6112.3	6936.4	7237.7	5776.2
30°	6891.8	6896.0	6738.4	6527.8	6317.3	6260.1	6329.8	6490.2	7188.9	7584.9	5896.1
32.5°	7700.7	7720.2	7494.3	7184.7	6911.3	6804.0	6844.4	7013.1	7590.5	8020.0	6076.0
35°	8794.0	8814.9	8481.6	8073.0	7637.9	7476.1	7516.6	7686.7	8172.0	8637.8	6363.3
37.5°	9873.3	9901.2	9563.8	9183.0	8586.2	8318.4	8360.3	8522.0	9045.0	9491.2	6823.5
40°	10619.4	10657.1	10552.5	10295.9	9742.3	9390.8	9441.0	9499.6	10005.8	10512.0	7420.3
42.5°	11012.7	11065.7	11110.3	11241.4	10949.9	10655.7	10570.6	10574.8	10983.4	11552.4	8040.9
45°	11036.4	11088.0	11316.7	11822.9	12044.6	11983.3	11828.5	11723.9	11729.5	12245.5	8428.6
47.5°	10269.4	10365.6	10793.7	11785.3	12619.2	13128.2	13050.1	12801.9	12043.3	12291.5	8386.8
50°	8452.3	8547.1	9325.3	10751.9	12200.8	13585.6	13907.8	13574.5	11838.3	11718.3	7955.9
52.5°	6138.8	6148.5	6653.4	8319.8	10505.1	12741.9	13500.5	13468.5	11525.9	11023.8	7367.4
55°	2916.0	2881.1	3448.7	4695.4	7265.6	10305.7	11584.4	11947.0	11082.4	10521.8	6911.3
57.5°	849.3	866.0	1118.4	1832.4	3634.2	6586.4	7933.5	8608.5	9096.6	8650.3	5360.6
60°	380.7	382.1	425.3	557.8	1210.5	3063.8	4101.3	4936.7	5438.7	5039.9	2659.4
62.5°	276.1	277.5	294.2	315.2	411.4	1037.5	1538.2	2050.0	2087.6	1366.6	673.6
65°	230.1	230.1	232.9	232.9	246.8	370.9	467.2	602.4	507.6	376.5	263.6
67.5°	185.5	186.9	189.7	189.7	185.5	185.5	200.8	220.3	235.7	291.5	242.7
70°	145.0	143.6	143.6	145.0	140.8	119.9	129.7	147.8	161.8	227.3	210.6
72.5°	113.0	114.4	113.0	107.4	97.6	71.1	76.7	96.2	103.2	142.2	142.2
75°	85.1	86.5	80.9	61.4	40.4	22.3	29.3	47.4	60.0	69.7	51.6
77.5°	11.2	11.2	8.4	8.4	7.0	8.4	8.4	11.2	16.7	16.7	12.6
80°	1.4	1.4	1.4	2.8	4.2	5.6	5.6	5.6	5.6	7.0	7.0
82.5°	1.4	1.4	1.4	1.4	4.2	4.2	5.6	5.6	5.6	5.6	5.6
85°	0.0	0.0	0.0	1.4	2.8	4.2	4.2	5.6	5.6	5.6	5.6
87.5°	0.0	0.0	0.0	1.4	2.8	4.2	4.2	4.2	5.6	5.6	5.6
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: P637967
CATALOG NUMBER: GWS-SA4D-830-U-AFL-W-GRSBK

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	4438.8	4438.8	4438.8	4438.8	4438.8	4438.8	4438.8	4438.8	4438.8	4438.8	4438.8
2.5°	4445.8	4364.9	4267.3	4200.4	4105.5	4042.8	3953.5	3893.6	3842.0	3801.5	3823.8
5°	4447.2	4318.9	4119.5	3949.3	3763.9	3593.7	3411.0	3267.4	3137.7	3079.1	3111.2
7.5°	4475.1	4291.0	3985.6	3683.0	3327.4	2975.9	2646.8	2379.1	2246.6	2183.9	2203.4
10°	4529.5	4278.4	3836.4	3334.3	2757.0	2277.3	1957.9	1776.6	1702.7	1663.7	1670.7
12.5°	4579.7	4270.1	3642.5	2875.5	2175.5	1766.9	1600.9	1575.8	1591.2	1592.6	1591.2
15°	4648.0	4254.7	3402.7	2404.2	1740.4	1527.0	1531.2	1567.5	1603.7	1614.9	1612.1
17.5°	4720.5	4231.0	3093.1	1952.4	1476.8	1457.3	1506.1	1554.9	1591.2	1596.7	1598.1
20°	4795.8	4182.2	2740.3	1594.0	1354.1	1404.3	1458.7	1494.9	1521.4	1529.8	1532.6
22.5°	4830.7	4079.0	2333.1	1337.4	1271.8	1338.8	1379.2	1426.6	1435.0	1404.3	1409.9
25°	4812.6	3904.7	1935.6	1164.4	1189.5	1256.5	1316.4	1292.7	1257.9	1235.6	1242.5
27.5°	4755.4	3673.2	1546.5	1037.5	1101.7	1186.8	1193.7	1167.2	1161.7	1143.5	1149.1
30°	4694.0	3406.9	1243.9	935.7	1012.4	1101.7	1080.8	1090.5	1091.9	1071.0	1078.0
32.5°	4656.4	3128.0	990.1	867.4	955.3	972.0	1013.8	1033.4	1034.7	985.9	994.3
35°	4668.9	2853.2	838.1	811.6	902.3	898.1	956.7	967.8	886.9	820.0	827.0
37.5°	4770.7	2599.4	751.7	768.4	810.2	842.3	886.9	813.0	794.9	764.2	768.4
40°	4960.4	2383.3	700.1	741.9	747.5	799.1	730.7	740.5	741.9	722.4	726.6
42.5°	5182.1	2203.4	669.4	726.6	712.6	721.0	652.6	672.2	693.1	684.7	686.1
45°	5293.7	2027.7	642.9	673.6	677.7	598.3	582.9	603.8	630.3	634.5	635.9
47.5°	5194.7	1860.3	615.0	596.9	624.8	545.3	527.1	534.1	564.8	581.5	584.3
50°	*4892.0*	*1667.9*	*573.2*	*528.5*	*513.2*	*489.5*	*472.7*	*474.1*	*509.0*	*538.3*	*543.9*
52.5°	4466.7	1467.1	504.8	447.6	412.8	430.9	435.1	426.7	458.8	488.1	493.7
55°	4053.9	1216.0	400.2	364.0	331.9	370.9	382.1	370.9	380.7	400.2	401.6
57.5°	2854.6	687.5	306.8	301.2	274.7	318.0	336.1	319.3	302.6	315.2	318.0
60°	1323.4	359.8	235.7	235.7	228.7	273.3	304.0	280.3	248.2	253.8	258.0
62.5°	414.2	227.3	172.9	163.2	186.9	232.9	258.0	234.3	196.6	196.6	202.2
65°	234.3	195.2	136.7	125.5	152.0	186.9	202.2	177.1	143.6	140.8	140.8
67.5°	217.5	185.5	121.3	101.8	107.4	119.9	125.5	108.8	99.0	97.6	99.0
70°	179.9	154.8	97.6	69.7	65.5	64.1	66.9	62.8	60.0	61.4	65.5
72.5°	111.6	93.4	61.4	41.8	36.3	34.9	34.9	34.9	33.5	33.5	33.5
75°	40.4	34.9	27.9	20.9	18.1	16.7	16.7	18.1	16.7	15.3	13.9
77.5°	12.6	11.2	11.2	11.2	9.8	8.4	7.0	7.0	5.6	4.2	4.2
80°	7.0	7.0	7.0	7.0	5.6	5.6	4.2	2.8	1.4	1.4	0.0
82.5°	7.0	7.0	7.0	5.6	5.6	5.6	4.2	2.8	1.4	0.0	0.0
85°	5.6	5.6	5.6	5.6	5.6	5.6	4.2	2.8	1.4	0.0	0.0
87.5°	5.6	5.6	5.6	5.6	5.6	5.6	4.2	2.8	1.4	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

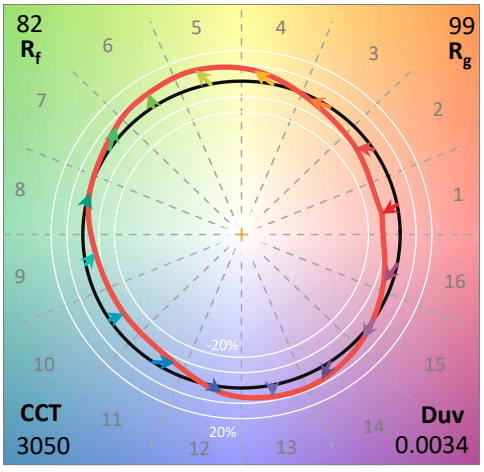
Test Information

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

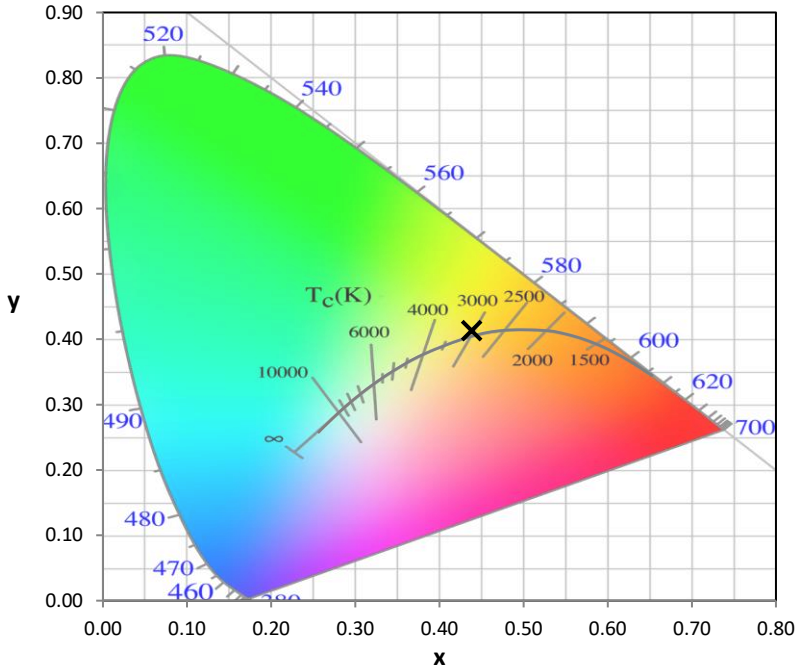
Stabilization Time:	20M
Operation Time:	1H 20M
Sphere Temperature (°C):	24.2

REPORT NUMBER: SP1-2408-195-9

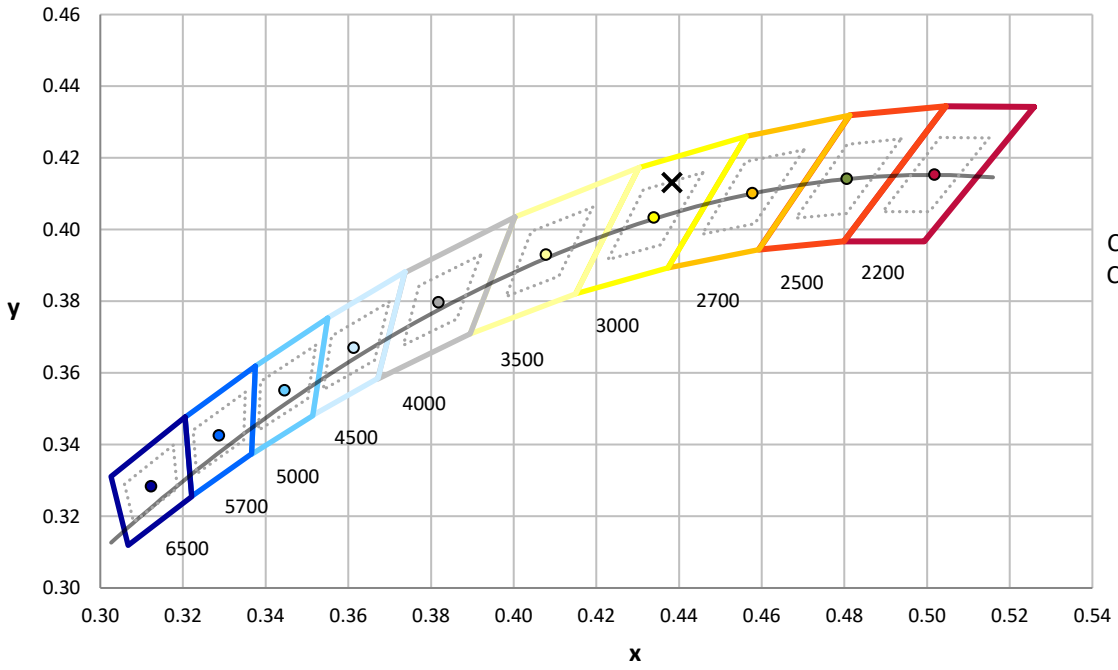
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

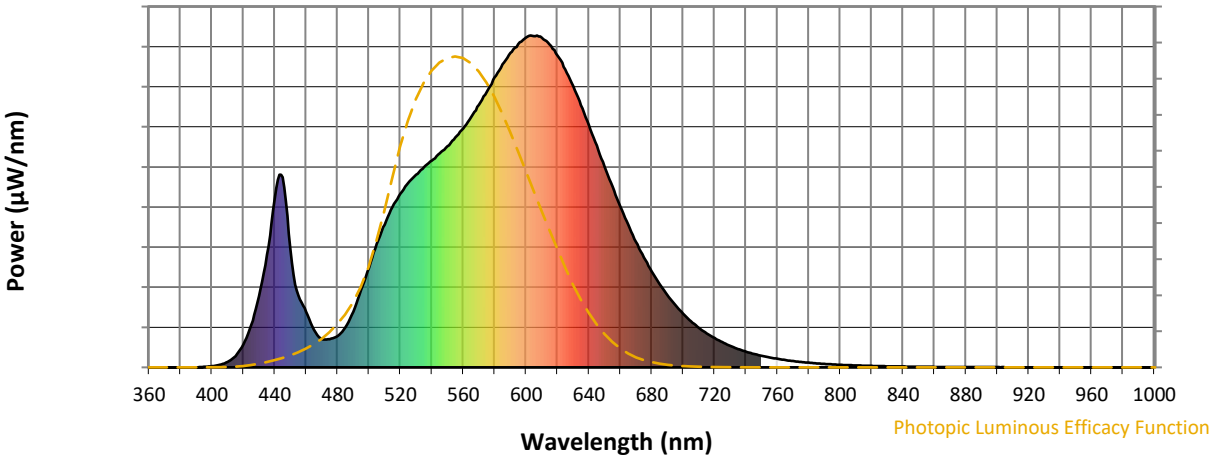


CCT = 3050K
CIE x = 0.4383
CIE y = 0.4131
Duv = 0.0034

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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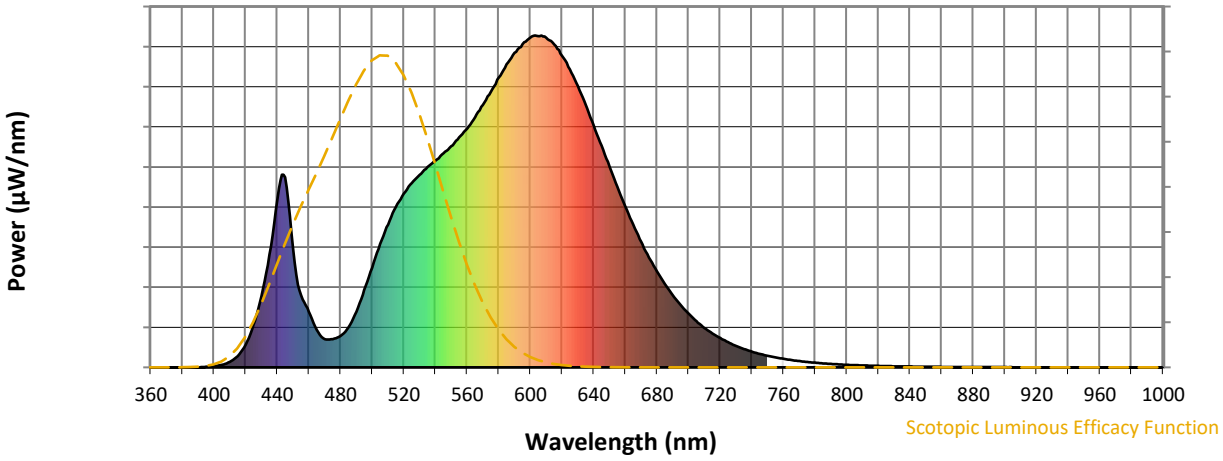
Scotopic Flux vs. Wavelength



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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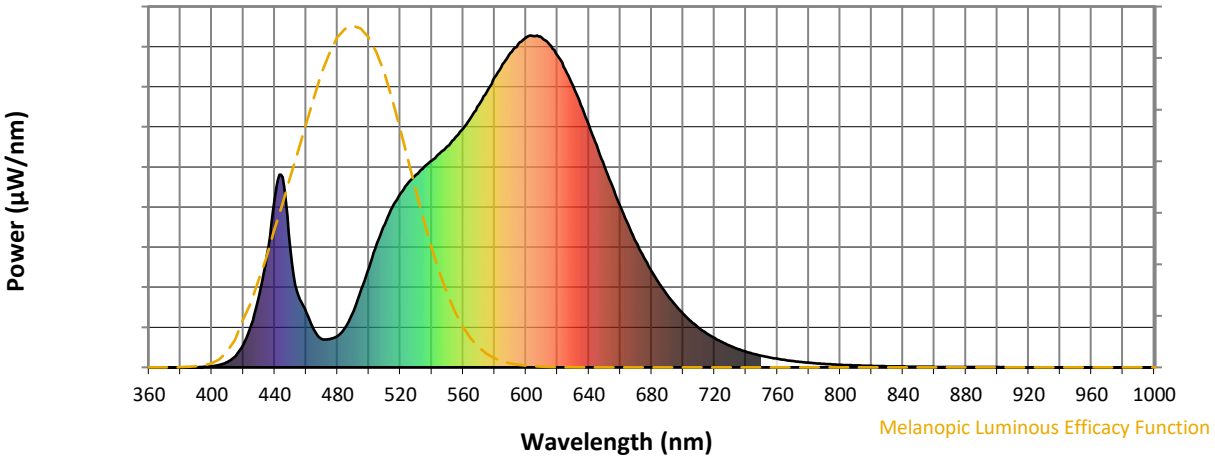
Melanopic Flux vs. Wavelength



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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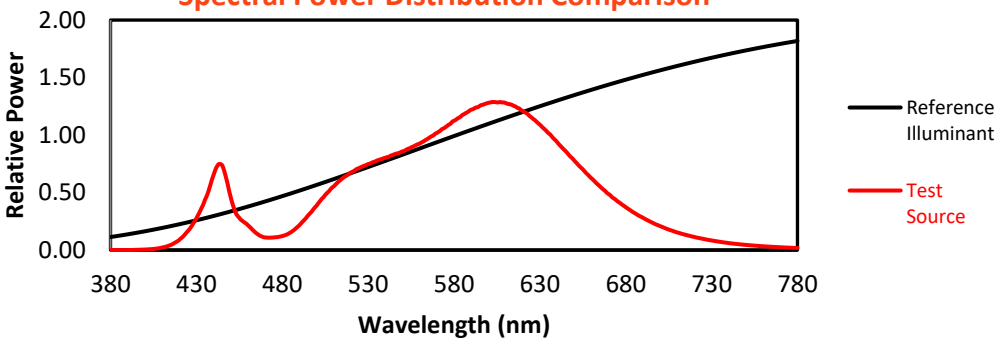
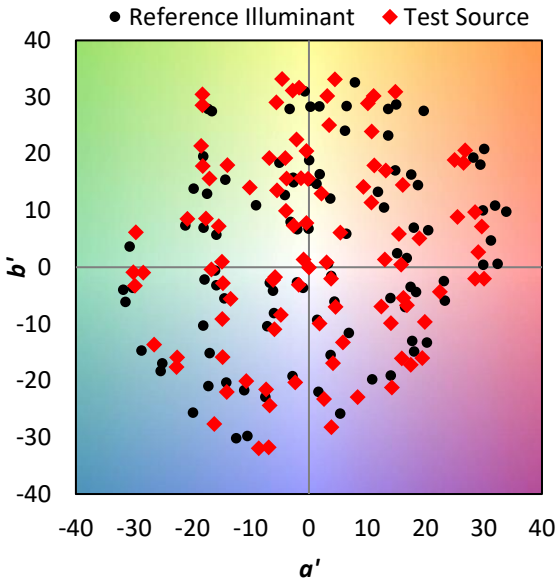
Summary

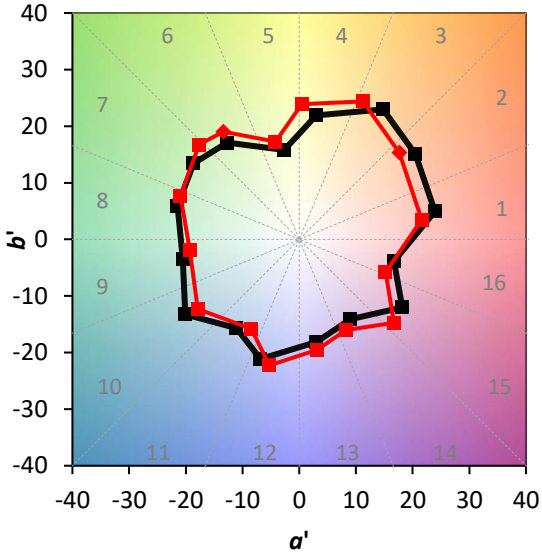
R_f = 81.5
R_g = 99.2
CIE R_a = 81.0
R_9 = 7.1

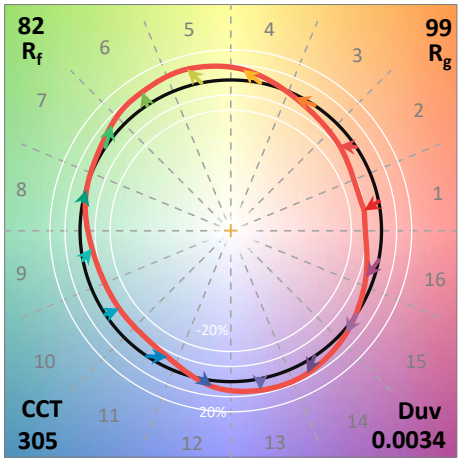
Spectral Power Distribution Comparison

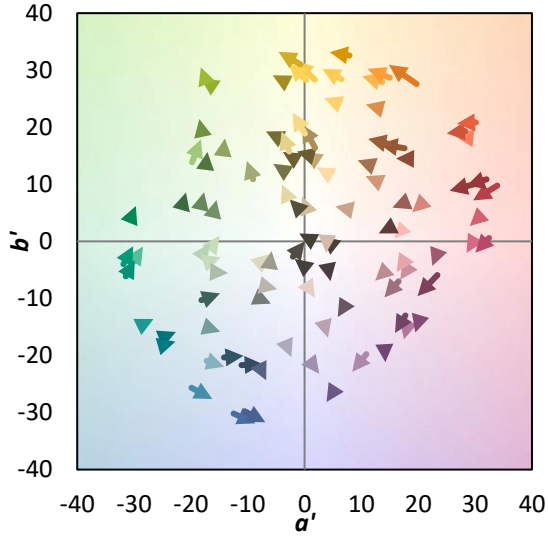


Color Vector Graphics









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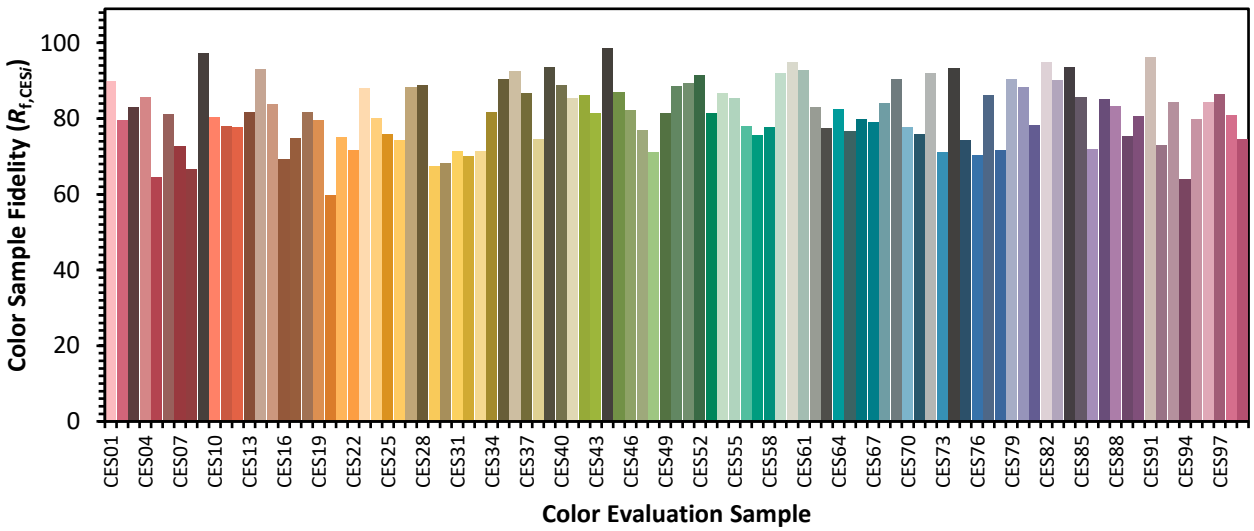
Individual Sample Fidelity Index ($R_{f,i}$)

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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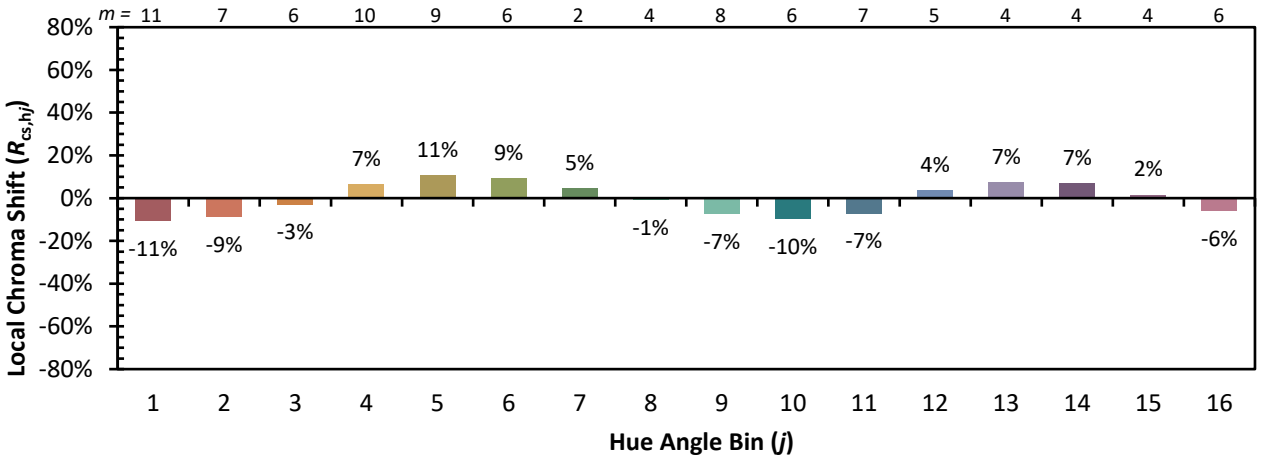
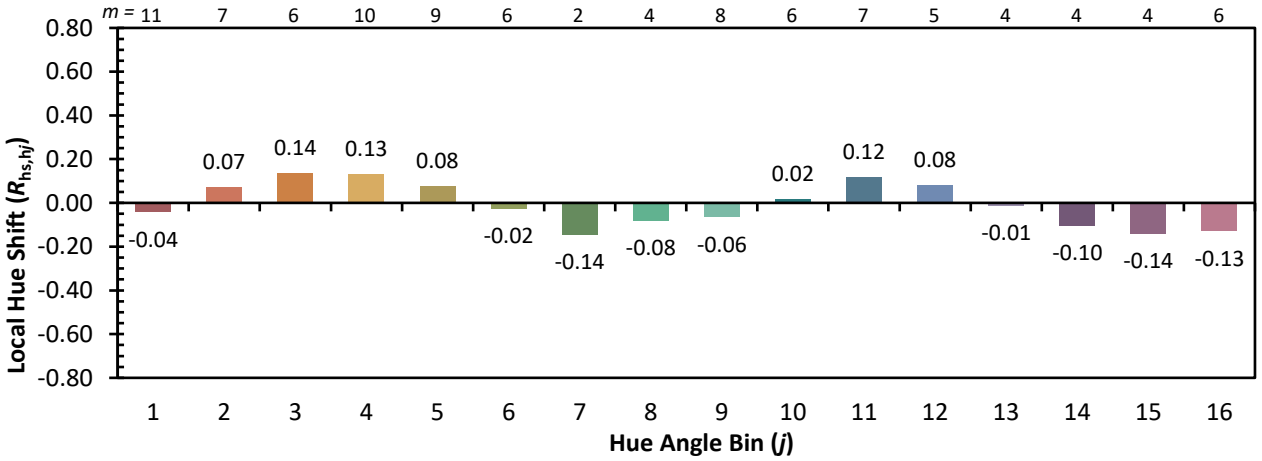
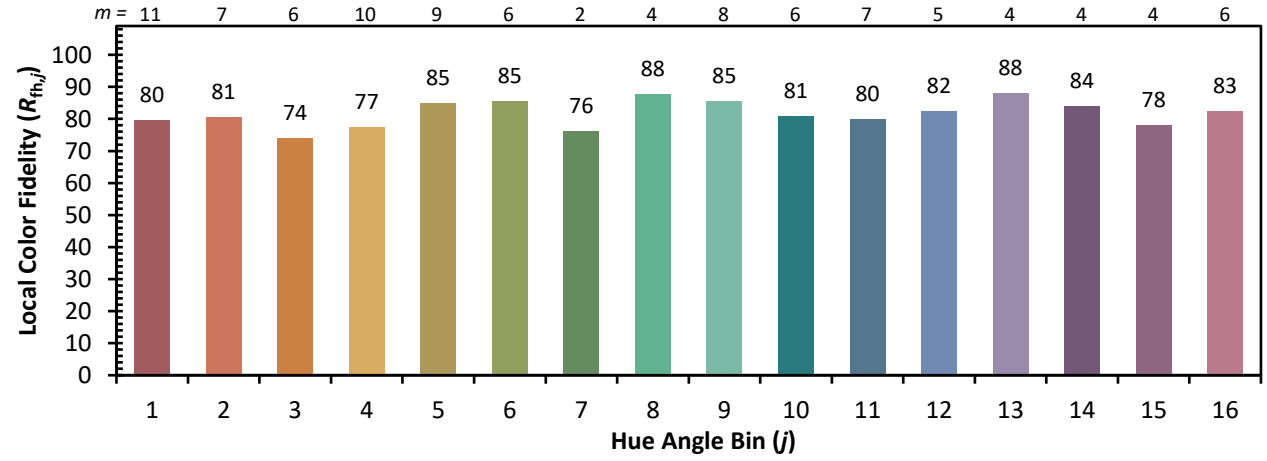
Color Rendition by Hue-Angle Bin







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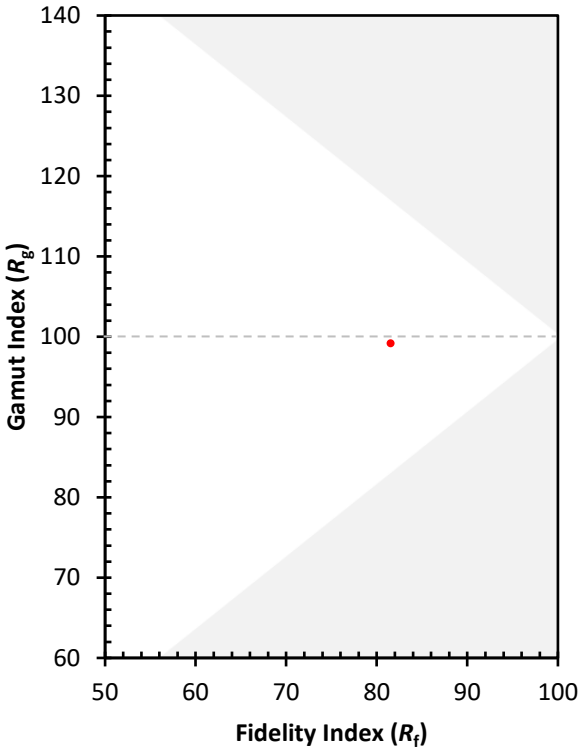
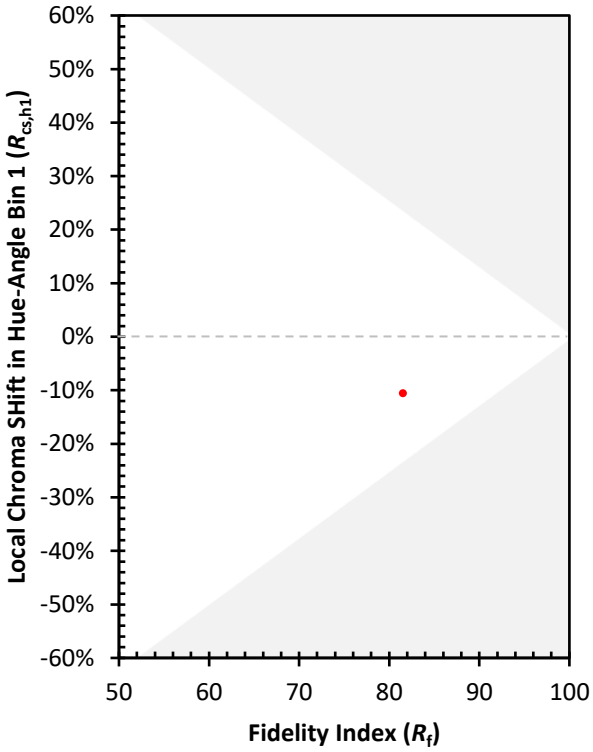
Measure Comparisons





(END OF REPORT)