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: P629075

Luminaire Tested: GWS-SA1A-830-U-SL4-W

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:	P629075
	TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-35)
Test Lab:	COOPER LIGHTING SOLUTIONS
Issue Date:	1/10/2023
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	McGRAW-EDISON
Catalog Number:	GWS-SA1A-830-U-SL4-W
Description:	GALLEON WALL SLIM LUMINAIRE. (1) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV SPILL LIGHT ELIMINATOR OPTICS
Light Source:	(16) 3000K CCT, 80 CRI LEDS
Ballast/Driver:	-

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	2169.6 lumens
Efficiency:	N/A
Efficacy:	110.1 lumens/watt
Luminous Opening:	Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification:	Type IV - Short
BUG Rating:	B0 - U0 - G1

Input Watts (W):	19.7
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: P629075
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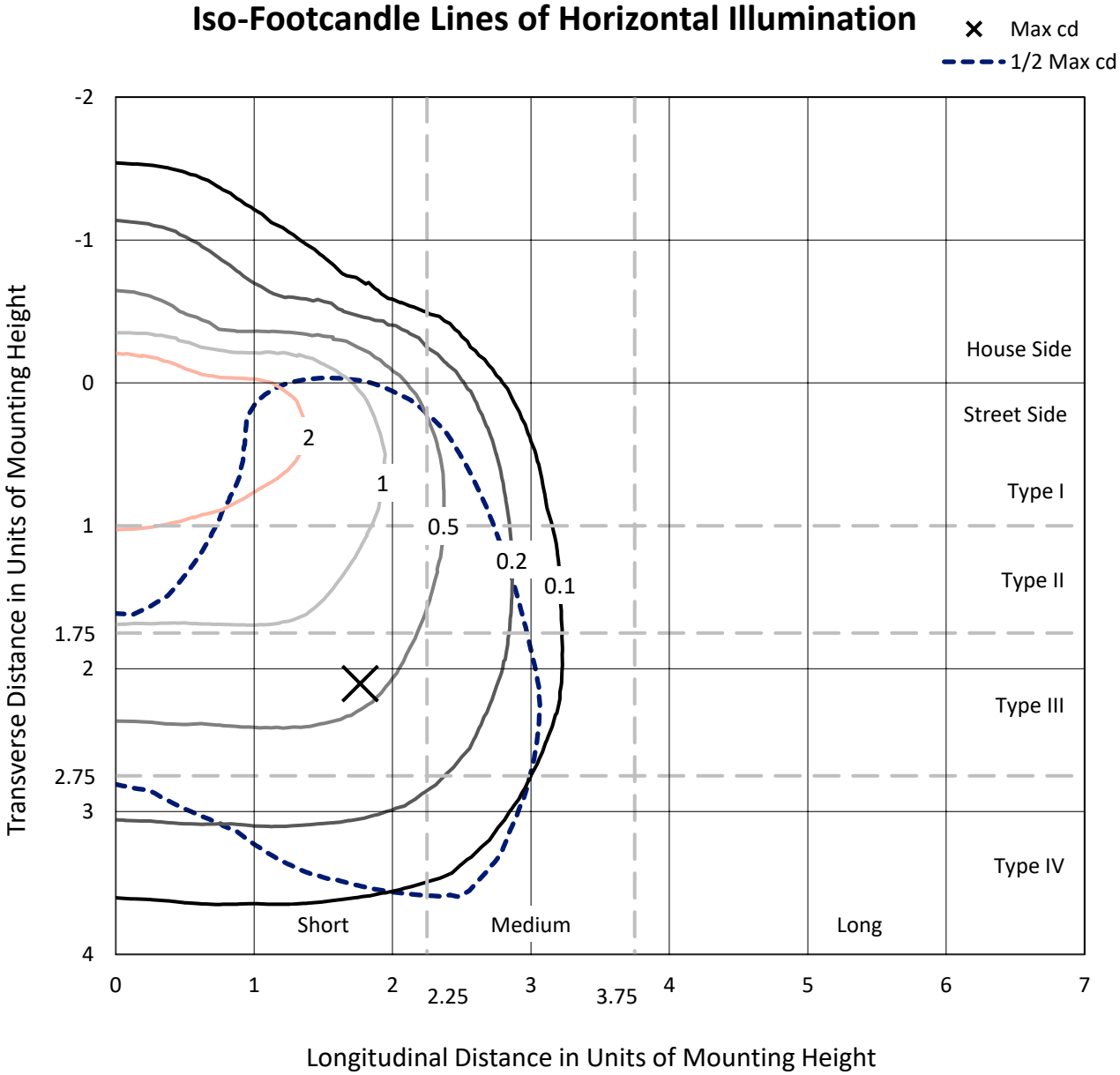
Iso-Footcandle Lines of Horizontal Illumination



Based on 10 foot mounting height. Maximum calculated value = 3.7 fc
Type IV - Short - N/A

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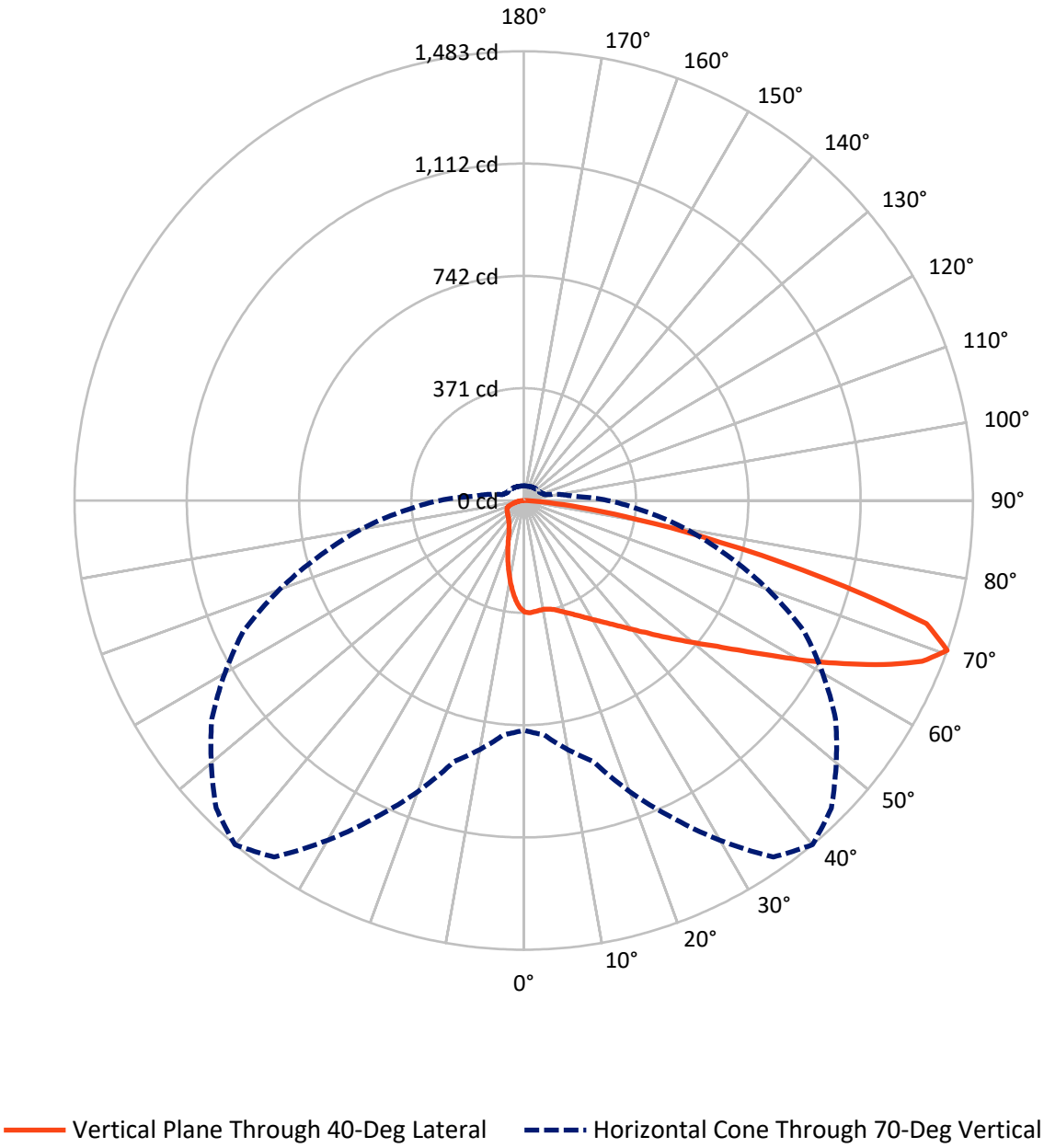
Luminous Intensity Polar Plot



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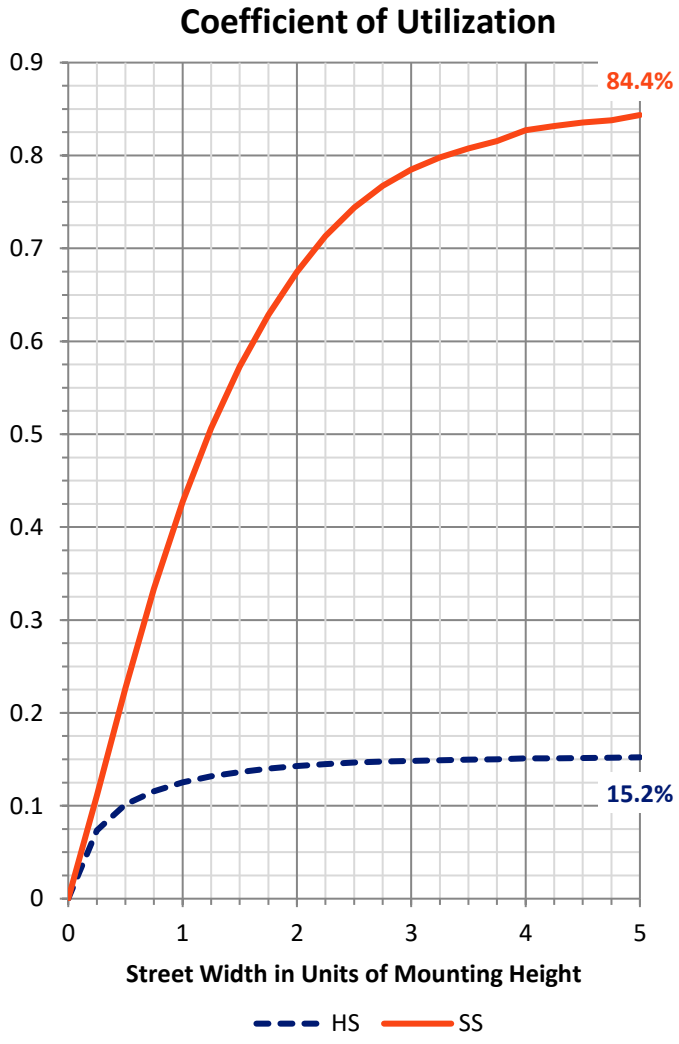
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	334.2	0.0	334.2
	% Fixture	15.4	0.0	15.4
Street Side	Lumens	1835.4	0.0	1835.4
	% Fixture	84.6	0.0	84.6
Total	Lumens	2169.6	0.0	2169.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	32.5	1.5
10°-20°	84.8	3.9
20°-30°	133.2	6.1
30°-40°	200.3	9.2
40°-50°	309.1	14.2
50°-60°	459.1	21.2
60°-70°	578.7	26.7
70°-80°	334.6	15.4
80°-90°	37.1	1.7
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°	2169.6	100.0
0°-180°	2169.6	100.0



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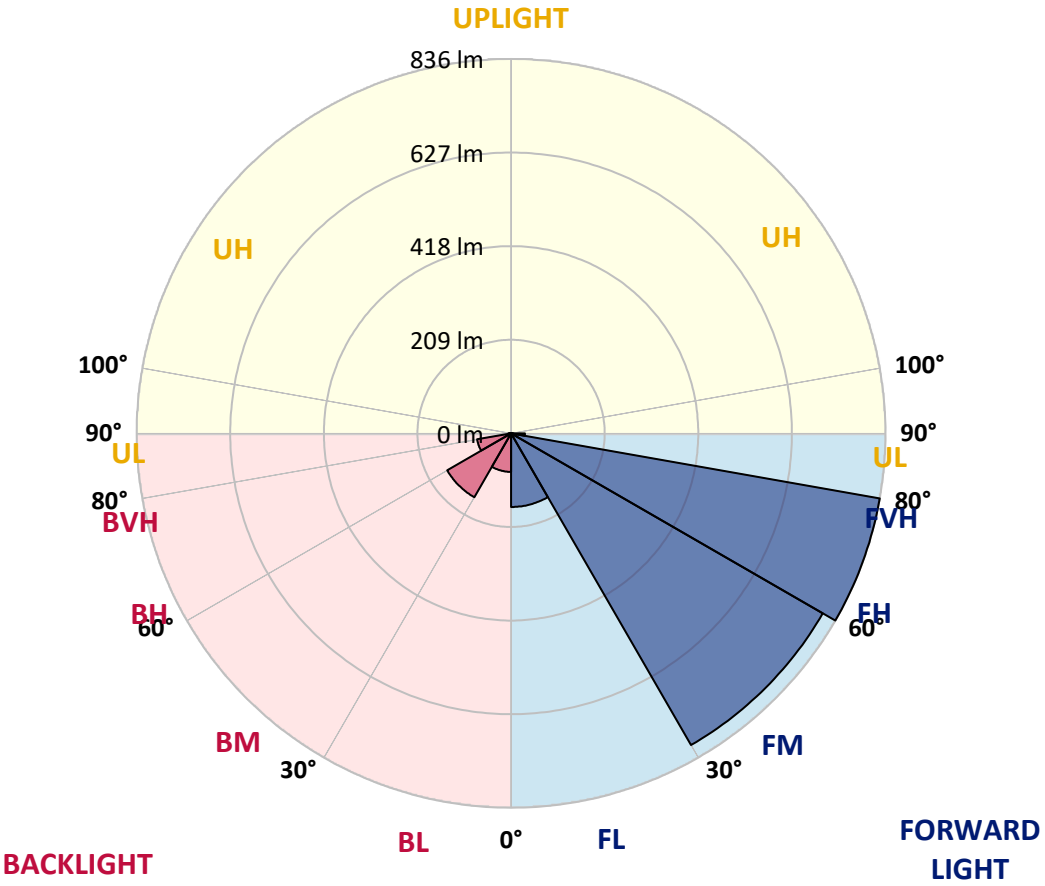
LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	164.5	7.6			
FM	(30°-60°)	803.8	37.0			
FH	(60°-80°)	836.2	38.5			G1/1800
FVH	(80°-90°)	30.9	1.4			G1/100
BL	(0°-30°)	86.1	4.0	B0/110		
BM	(30°-60°)	164.7	7.6	B0/220		
BH	(60°-80°)	77.1	3.6	B0/110		G0/110
BVH	(80°-90°)	6.2	0.3			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B0-U0-G1
Type IV Short



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REPORT NUMBER: P629075
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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	368.4	368.4	368.4	368.4	368.4	368.4	368.4	368.4	368.4	368.4	368.4
2.5°	370.7	371.3	371.8	372.5	372.1	371.2	372.0	372.0	370.2	368.3	366.5
5°	371.2	372.0	371.8	371.7	370.4	368.7	368.7	367.8	364.7	361.6	358.7
7.5°	370.2	370.0	369.9	369.4	367.9	366.2	365.8	363.9	359.8	355.6	351.4
10°	365.8	365.7	366.2	367.3	367.0	365.3	365.3	363.6	358.9	353.7	348.2
12.5°	362.3	362.3	364.2	367.3	368.4	367.8	367.9	366.6	361.3	355.1	348.7
15°	362.8	362.9	367.1	372.1	374.3	373.8	373.9	372.5	366.5	360.3	351.6
17.5°	366.0	366.8	374.1	381.1	383.8	383.2	382.0	379.6	372.8	365.8	355.1
20°	372.8	374.1	383.5	392.2	395.5	394.0	392.1	387.2	379.8	372.1	359.0
22.5°	386.2	387.0	397.4	406.0	408.6	406.8	402.9	396.0	387.4	379.4	363.7
25°	405.2	406.2	416.0	424.0	423.3	421.2	415.9	407.3	397.1	388.7	370.5
27.5°	427.7	429.3	439.0	445.3	441.1	438.1	432.1	421.7	410.2	402.6	380.9
30°	452.3	453.0	461.2	467.5	461.1	456.8	449.6	438.4	428.0	422.4	396.4
32.5°	476.1	476.8	483.9	487.5	480.7	477.6	471.3	459.4	452.1	449.1	419.6
35°	501.2	501.1	506.9	510.0	503.0	501.7	495.2	486.2	484.9	488.9	453.4
37.5°	526.3	524.9	527.9	532.0	528.1	529.4	525.2	522.1	527.1	537.7	498.5
40°	546.4	546.4	549.6	554.7	556.0	561.6	559.2	563.2	579.4	604.5	554.2
42.5°	564.2	564.4	571.2	579.0	588.3	597.1	599.0	609.6	643.1	682.4	624.1
45°	582.8	583.0	592.2	603.6	623.5	640.2	644.1	667.7	715.6	763.6	700.1
47.5°	604.4	602.6	615.4	634.3	662.7	686.6	696.7	730.2	790.8	849.7	771.7
50°	628.7	624.9	639.2	671.9	706.9	739.8	756.6	795.0	871.4	929.2	839.0
52.5°	656.0	653.9	668.8	708.7	762.1	800.0	822.8	873.2	949.8	1008.4	892.5
55°	690.0	685.0	706.6	757.3	826.9	875.1	902.2	950.6	1035.5	1080.3	933.3
57.5°	727.3	721.8	750.6	818.0	911.1	964.1	997.9	1037.7	1116.1	1135.4	957.3
60°	767.5	765.7	799.8	889.2	1011.5	1073.0	1097.5	1133.6	1186.2	1167.3	951.3
62.5°	804.2	803.6	853.3	966.5	1117.9	1185.6	1205.0	1214.6	1236.8	1165.2	903.6
65°	842.9	848.4	915.6	1056.0	1239.8	1306.2	1314.3	1290.0	1253.8	1110.0	806.2
67.5°	847.8	858.5	954.8	1139.9	1355.5	1418.1	1411.7	1318.7	1203.6	956.3	631.9
70°	758.2	776.8	892.3	1152.7	1436.9	1483.1	1436.3	1257.0	1021.4	692.8	397.4
72.5°	633.5	649.6	751.6	983.0	1331.8	1390.6	1327.3	1064.0	721.8	397.4	202.4
75°	493.1	511.7	605.8	781.4	997.1	1020.6	988.8	742.0	396.8	163.9	92.0
77.5°	300.9	314.3	387.5	529.4	697.7	662.5	561.5	416.0	174.1	78.5	56.8
80°	133.1	141.4	190.9	284.4	403.1	381.1	300.4	177.7	95.2	49.9	39.7
82.5°	71.4	76.8	94.1	112.6	177.0	185.1	150.1	102.3	51.2	28.5	22.7
85°	31.4	34.5	42.8	40.8	58.1	57.2	57.7	70.3	24.5	13.1	14.7
87.5°	0.0	0.0	0.0	0.0	0.2	0.2	1.8	9.4	2.4	3.9	3.4
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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REPORT NUMBER: P629075
CATALOG NUMBER: GWS-SA1A-830-U-SL4-W

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	368.4	368.4	368.4	368.4	368.4	368.4	368.4	368.4	368.4	368.4	368.4
2.5°	364.5	361.6	360.8	359.8	358.1	355.0	352.7	350.1	349.0	347.7	347.9
5°	355.5	351.9	348.5	344.1	338.6	332.5	328.3	323.4	320.8	318.4	319.0
7.5°	347.7	342.2	335.2	326.0	316.1	305.1	296.2	289.2	284.5	281.3	282.9
10°	342.8	336.4	324.2	309.2	292.5	275.6	262.8	250.9	243.4	237.6	237.2
12.5°	341.9	333.4	315.8	293.9	269.8	247.3	228.5	212.3	202.4	195.1	197.9
15°	342.8	332.1	308.5	279.8	249.4	218.9	195.6	177.0	165.2	158.5	158.1
17.5°	344.0	330.9	300.2	264.6	228.0	193.2	166.2	146.4	134.3	127.6	127.8
20°	344.9	328.9	290.5	247.9	206.3	169.2	141.2	122.4	111.6	106.7	107.5
22.5°	346.6	327.0	280.2	230.1	184.1	146.1	121.5	106.2	99.8	96.5	96.7
25°	349.6	325.8	269.5	210.7	162.3	127.6	107.9	97.7	93.6	91.7	91.5
27.5°	356.0	326.8	258.3	191.9	142.5	113.5	99.1	92.5	89.7	88.4	88.3
30°	366.5	330.7	248.6	172.8	125.5	102.5	93.1	89.1	87.4	86.3	86.2
32.5°	382.5	338.0	238.1	155.0	111.7	94.4	88.4	86.3	85.2	84.5	84.5
35°	406.8	351.3	227.7	139.4	101.1	88.1	84.7	83.9	82.9	82.6	82.9
37.5°	441.8	372.5	218.3	125.8	93.4	83.2	80.6	81.0	80.2	80.6	81.1
40°	486.2	400.8	210.4	114.7	87.8	79.7	77.1	78.2	77.7	78.2	79.0
42.5°	542.4	436.0	204.4	105.9	83.7	76.8	74.3	75.5	75.1	75.8	76.6
45°	605.0	482.3	201.6	99.8	80.8	74.7	72.1	72.9	72.6	73.0	73.8
47.5°	665.1	524.4	204.0	96.2	78.4	72.9	70.1	70.4	70.3	70.1	70.6
50°	716.9	557.9	211.0	95.1	76.8	71.1	68.5	68.7	68.2	67.2	67.5
52.5°	759.2	584.8	215.2	95.1	76.0	69.2	66.7	66.9	65.9	64.6	64.8
55°	787.0	595.6	211.8	94.9	75.6	67.5	64.9	65.1	64.1	62.5	62.7
57.5°	795.0	585.1	197.6	93.1	75.3	66.2	63.2	63.5	62.8	61.1	61.1
60°	772.8	546.6	171.5	89.1	74.5	65.4	61.9	62.3	62.0	60.2	60.2
62.5°	714.7	478.1	140.4	82.9	72.2	64.5	60.7	61.7	62.5	61.5	61.4
65°	605.8	383.0	114.2	76.1	69.3	62.8	59.1	61.5	63.3	64.6	64.6
67.5°	454.6	274.2	93.1	69.0	64.9	59.6	57.0	59.3	60.6	61.4	61.9
70°	*277.1*	*161.3*	*73.4*	*60.7*	*58.6*	*54.7*	*52.8*	*50.5*	*48.7*	*48.4*	*48.6*
72.5°	135.5	92.3	59.6	51.7	50.0	46.5	42.1	41.1	40.3	39.8	39.7
75°	74.7	64.3	49.2	42.9	40.0	35.6	34.7	33.0	32.7	32.1	32.2
77.5°	52.8	50.7	40.6	34.8	30.4	28.2	28.7	27.5	27.5	27.0	26.9
80°	39.7	39.8	31.3	25.4	22.5	21.7	22.2	22.2	21.9	21.7	21.5
82.5°	25.1	28.3	21.1	16.4	16.0	16.2	16.0	15.9	16.2	15.7	15.5
85°	17.3	20.4	12.8	9.7	9.7	9.6	9.9	9.7	10.0	9.6	9.6
87.5°	3.9	9.1	4.7	2.9	3.1	2.9	3.1	3.2	3.6	3.7	3.7
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

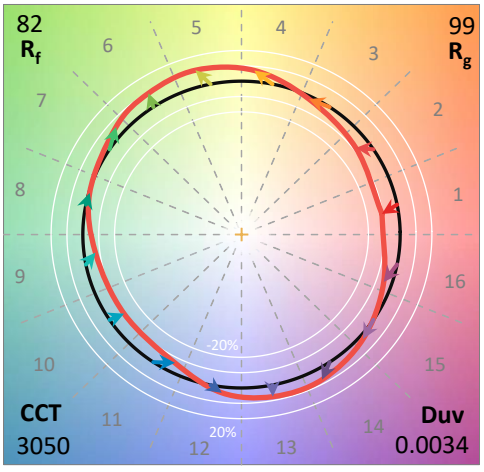
Test Information

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

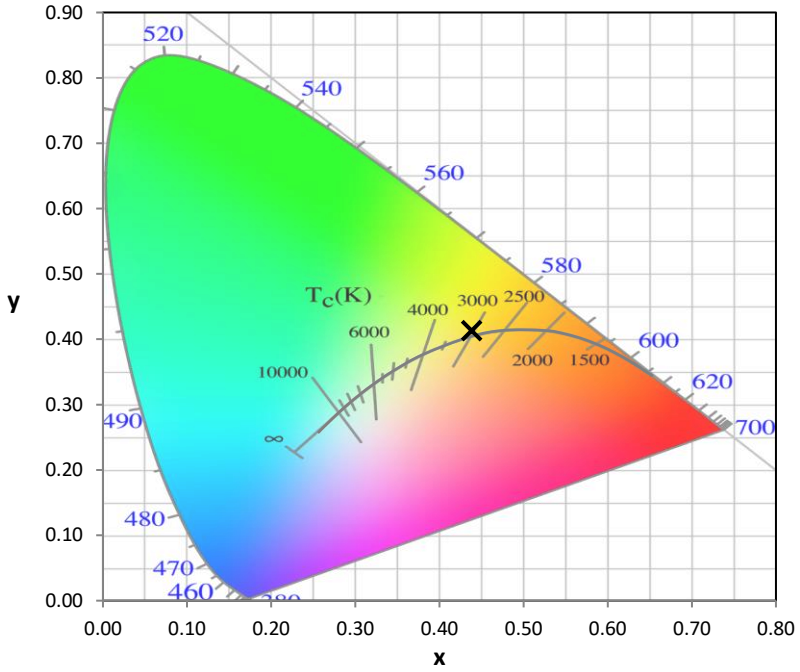
Stabilization Time:	20M
Operation Time:	1H 20M
Sphere Temperature (°C):	24.2

REPORT NUMBER: SP1-2408-195-9

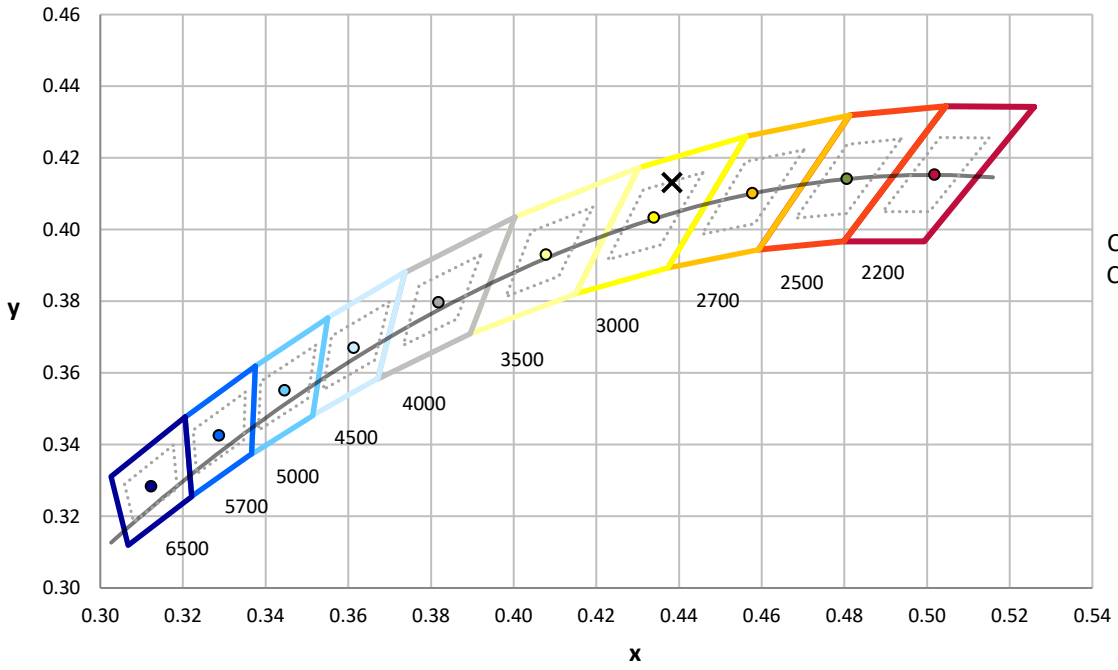
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

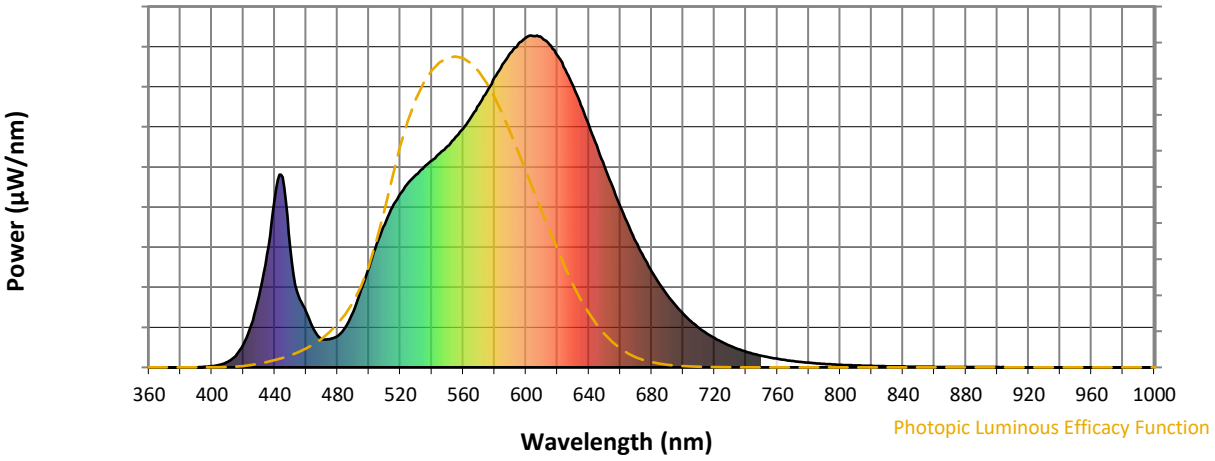


CCT = 3050K
CIE x = 0.4383
CIE y = 0.4131
Duv = 0.0034

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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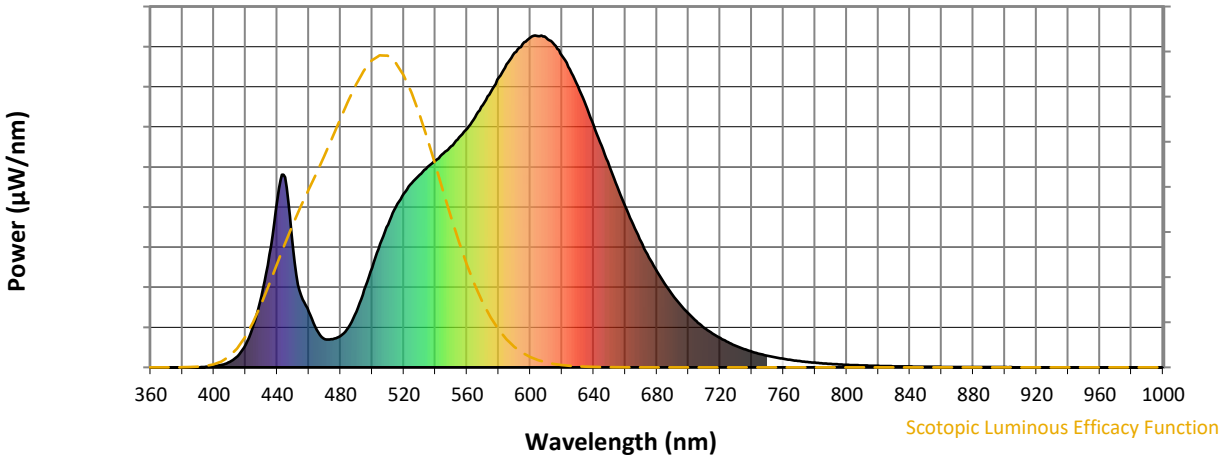
Scotopic Flux vs. Wavelength



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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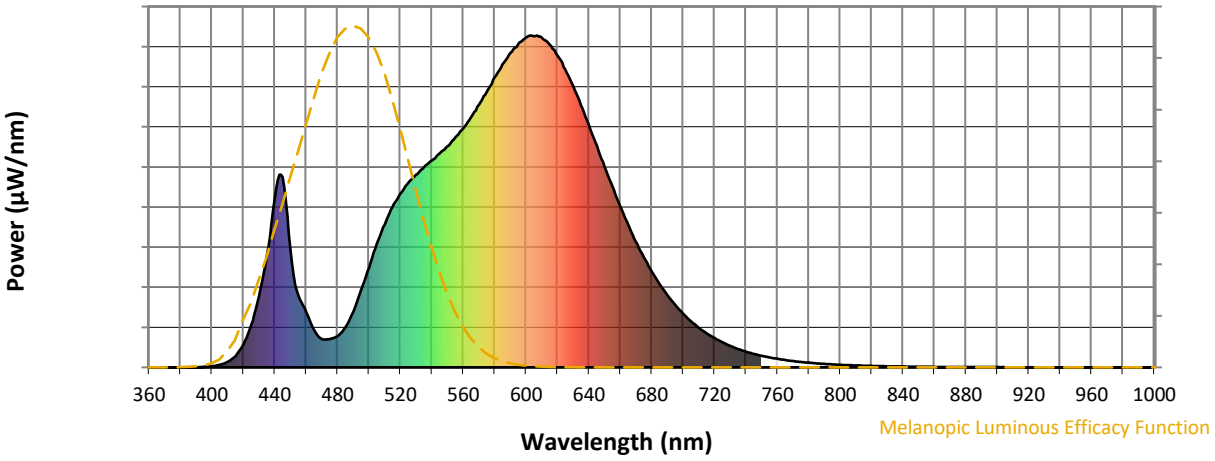
Melanopic Flux vs. Wavelength



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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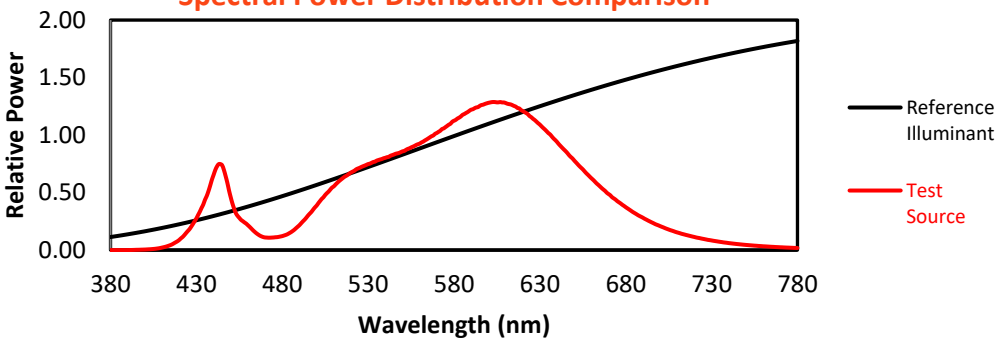
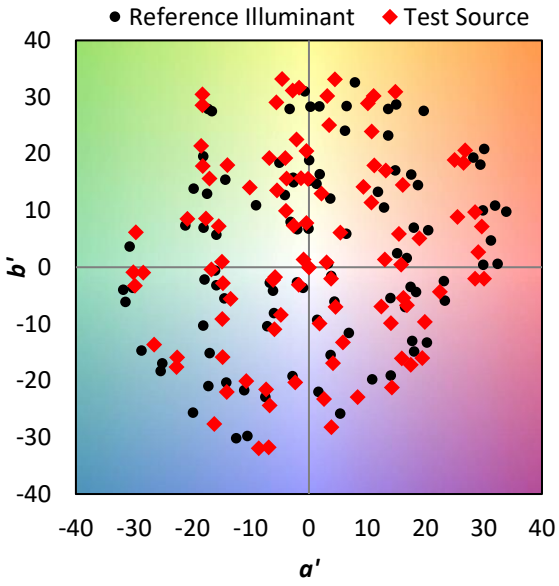
Summary

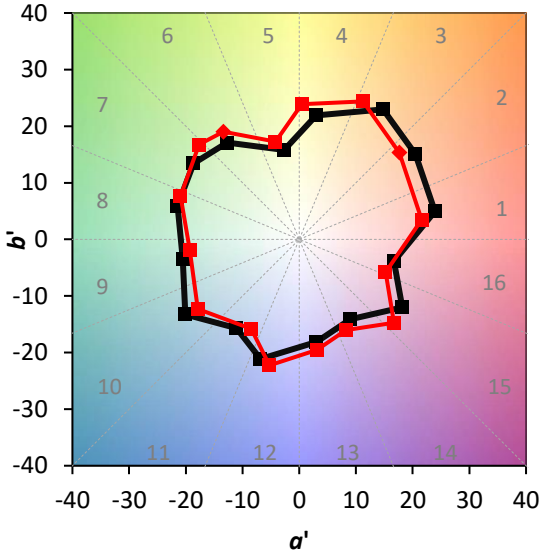
R_f = 81.5
R_g = 99.2
CIE R_a = 81.0
R_9 = 7.1

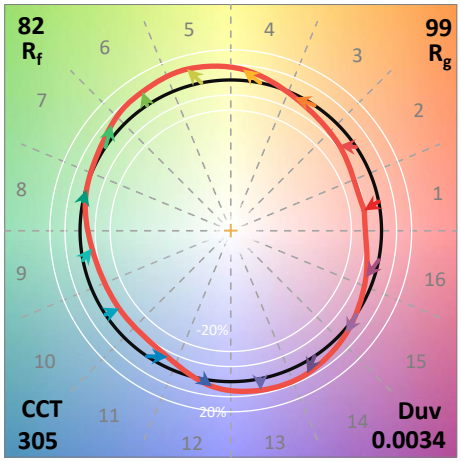
Spectral Power Distribution Comparison

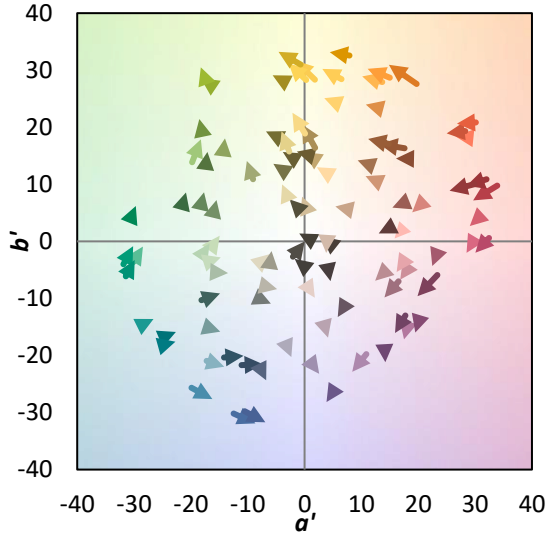


Color Vector Graphics









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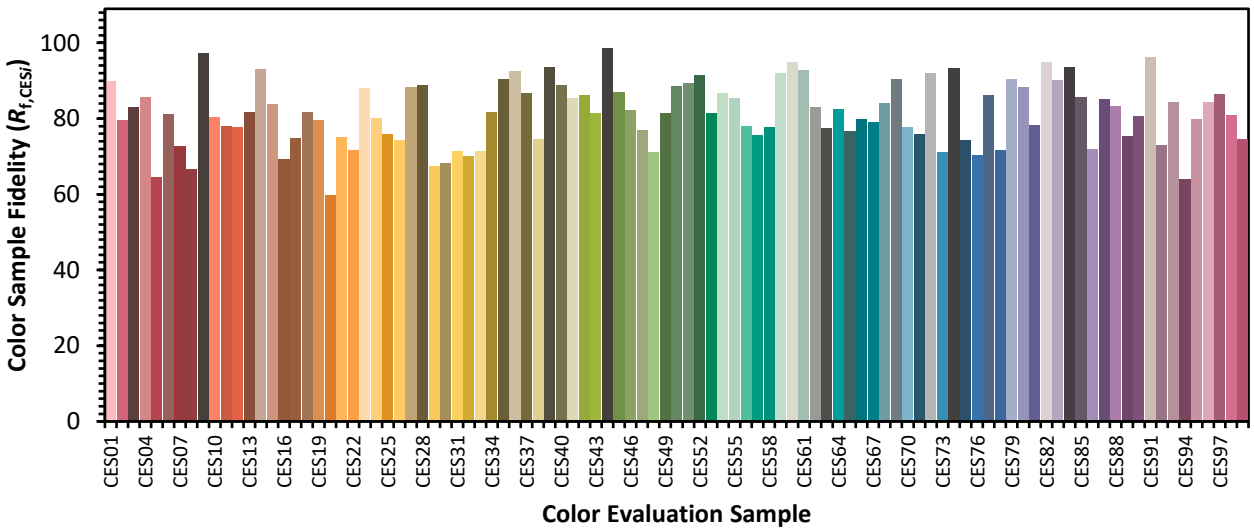
Individual Sample Fidelity Index ($R_{f,i}$)

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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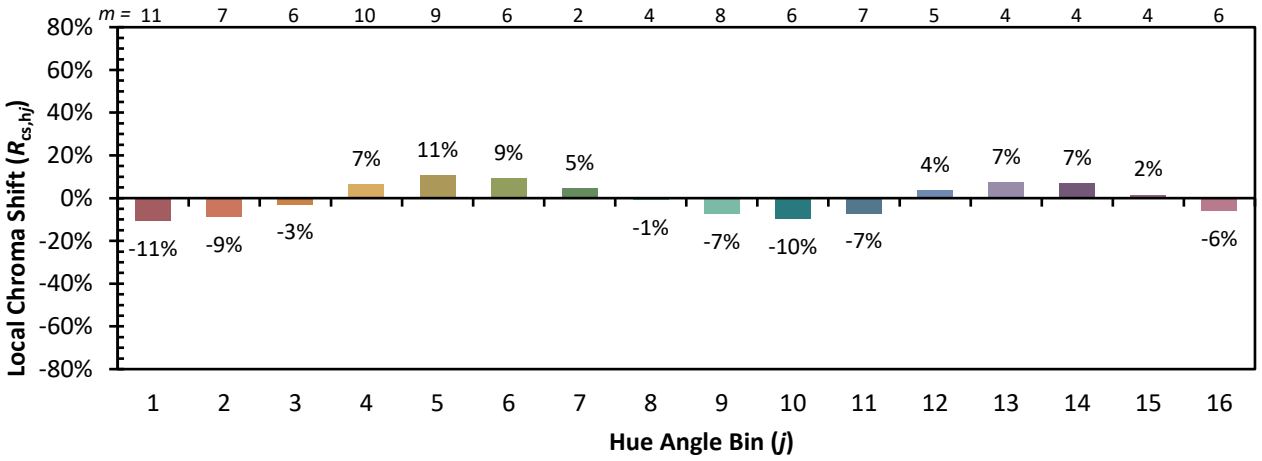
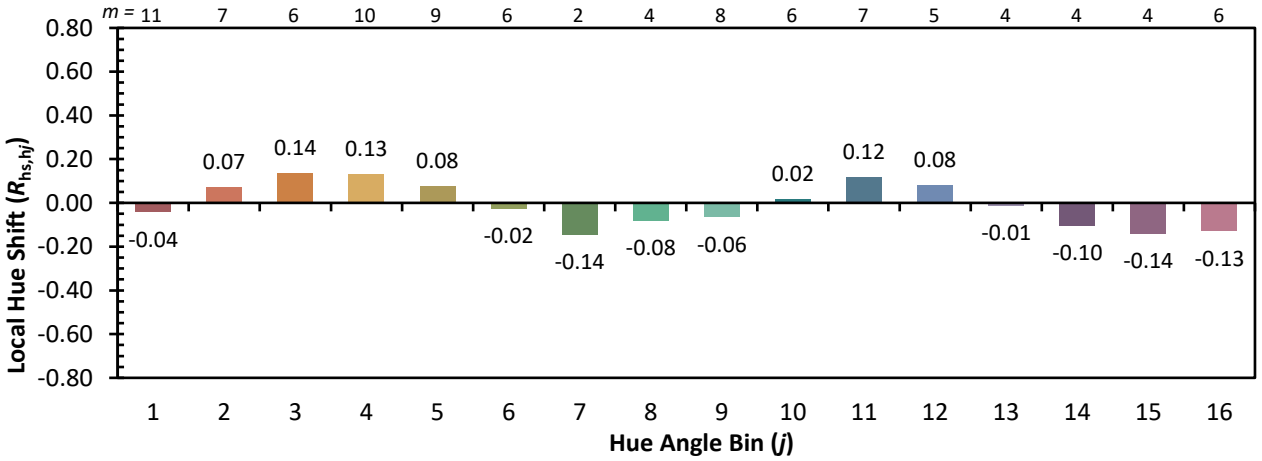
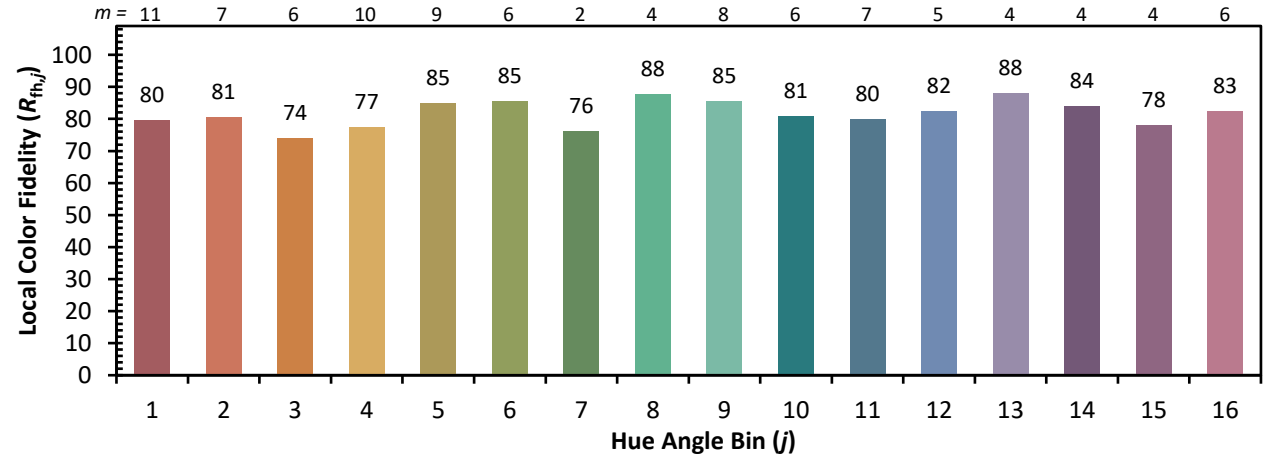
Color Rendition by Hue-Angle Bin







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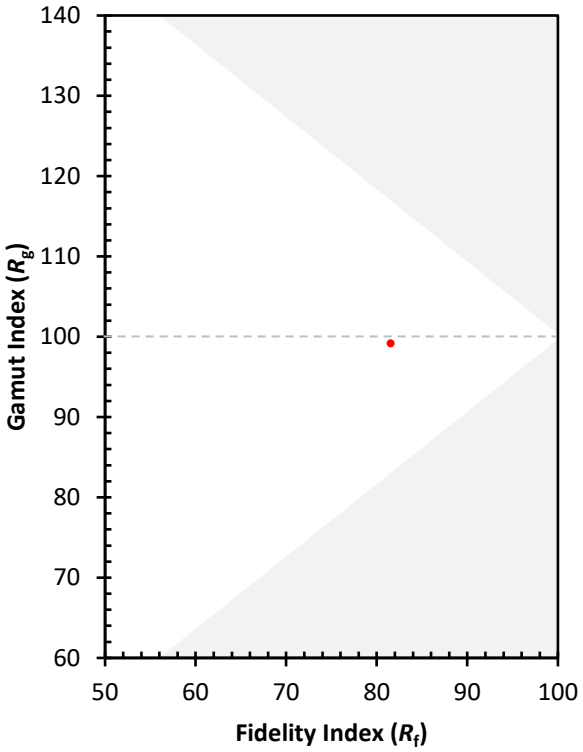
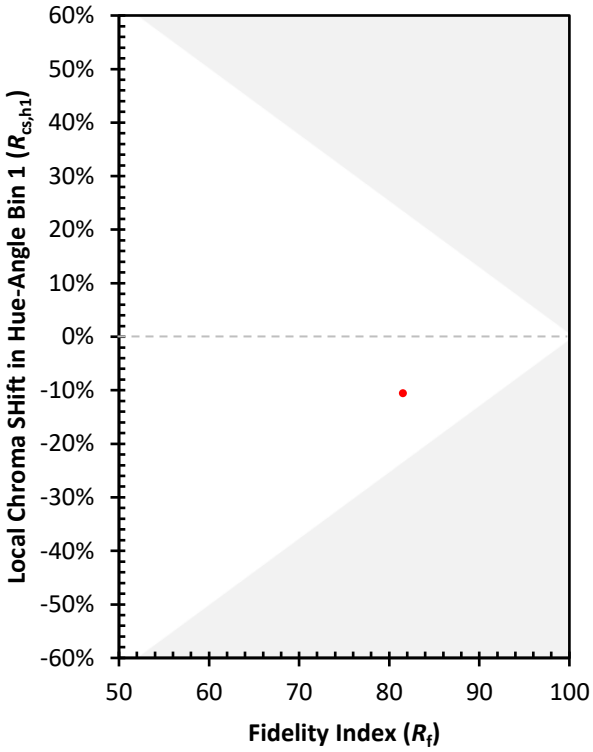
Measure Comparisons





(END OF REPORT)