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: P638005

Luminaire Tested: GWS-SA4D-830-U-T3R-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:	P638005
	TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-16)
Test Lab:	COOPER LIGHTING SOLUTIONS
Issue Date:	1/10/2023
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	McGRAW-EDISON
Catalog Number:	GWS-SA4D-830-U-T3R-W-GRSBK
Description:	GALLEON WALL SLIM LUMINAIRE. (4) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III 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:	12201.2 lumens
Efficiency:	N/A
Efficacy:	75.3 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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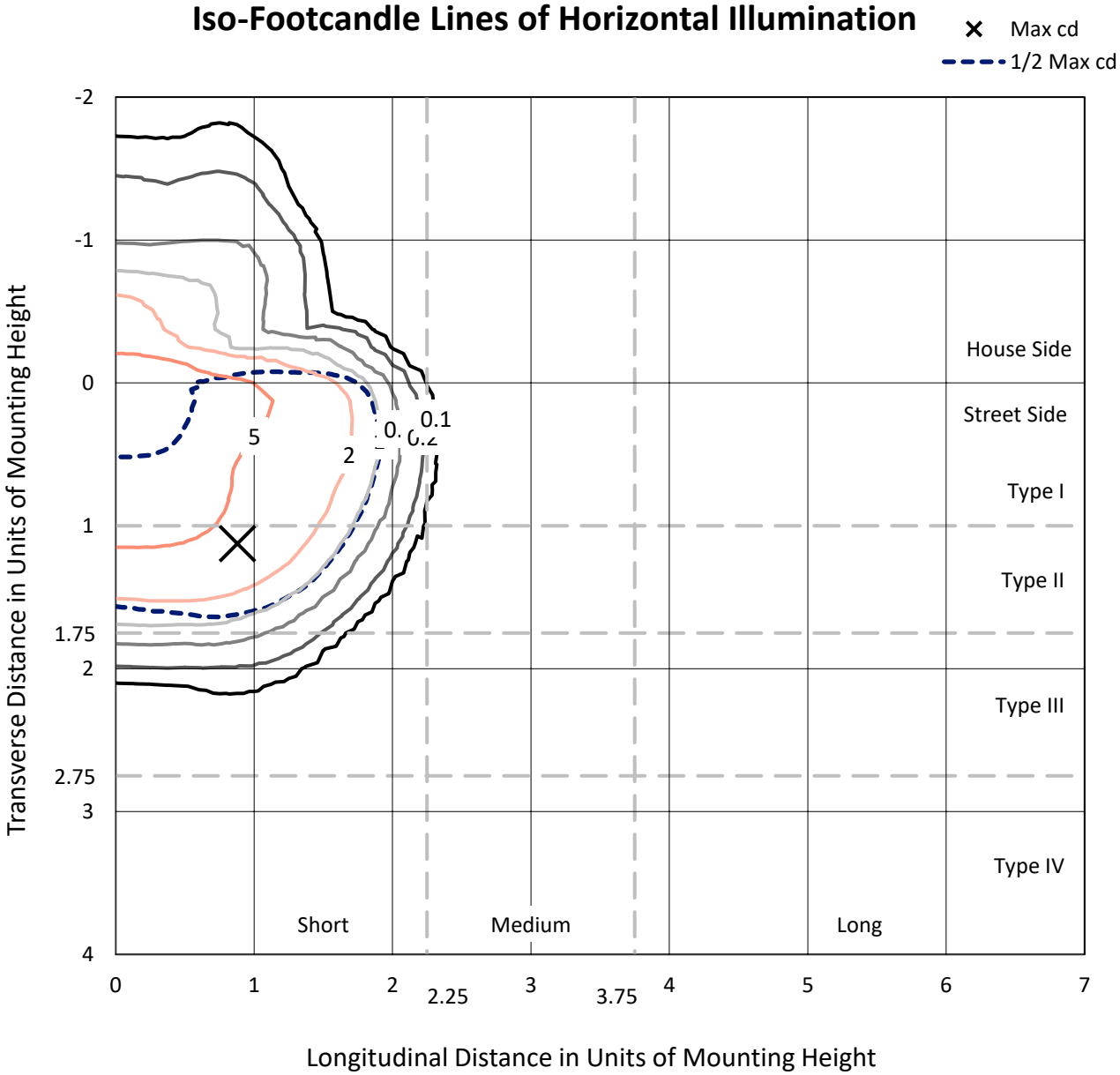
Scaled Data Report

REPORT NUMBER: P638005
CATALOG NUMBER: GWS-SA4D-830-U-T3R-W-GRSBK

Iso-Footcandle Lines of Horizontal Illumination



Based on 20 foot mounting height. Maximum calculated value = 7.6 fc
Type II - Short - N/A

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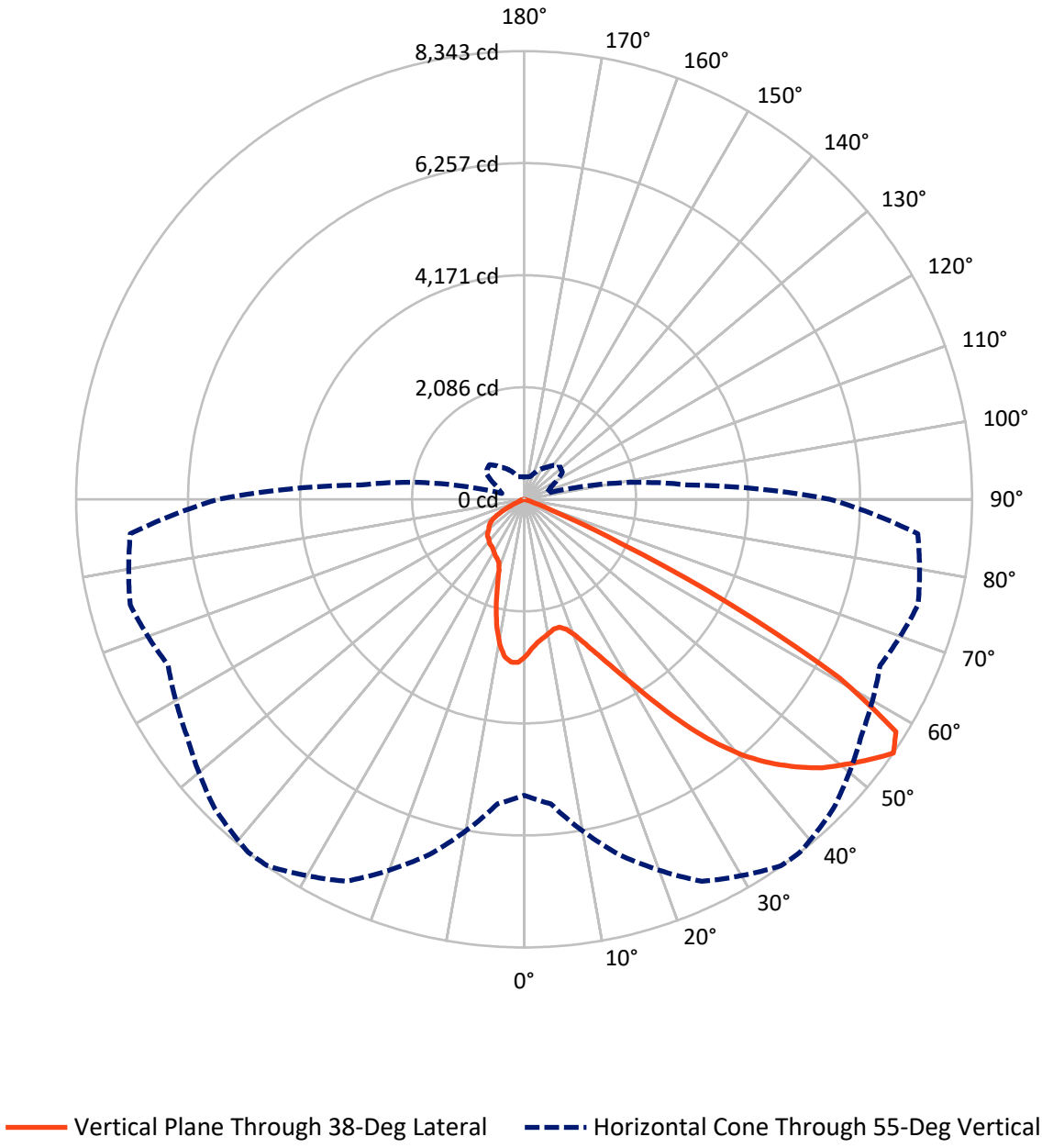
Luminous Intensity Polar Plot



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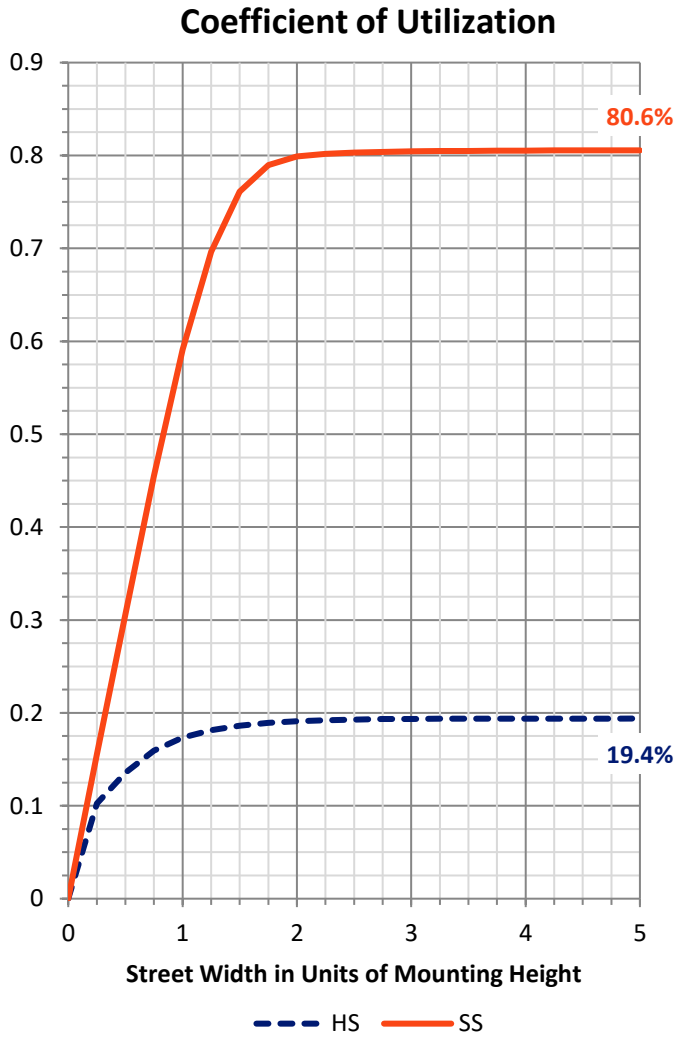
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2377.2	0.0	2377.2
	% Fixture	19.5	0.0	19.5
Street Side	Lumens	9824.0	0.0	9824.0
	% Fixture	80.5	0.0	80.5
Total	Lumens	12201.2	0.0	12201.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	270.5	2.2
10°-20°	728.3	6.0
20°-30°	1249.9	10.2
30°-40°	2073.0	17.0
40°-50°	3047.4	25.0
50°-60°	3560.9	29.2
60°-70°	1207.0	9.9
70°-80°	61.7	0.5
80°-90°	2.4	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°	12201.2	100.0
0°-180°	12201.2	100.0



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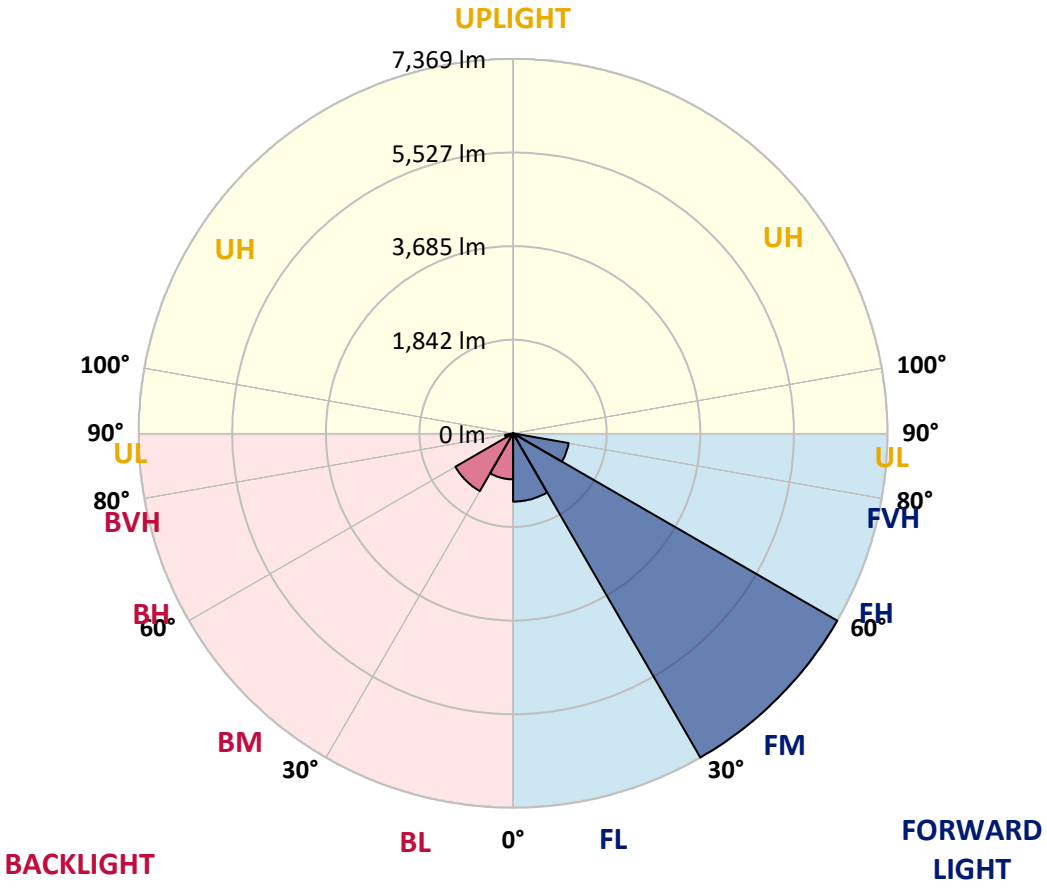
LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	1343.1	11.0			
FM	(30°-60°)	7369.2	60.4			
FH	(60°-80°)	1110.5	9.1			G1/1800
FVH	(80°-90°)	1.3	0.0			G0/10
BL	(0°-30°)	905.7	7.4	B2/1000		
BM	(30°-60°)	1312.1	10.8	B2/2500		
BH	(60°-80°)	158.3	1.3	B1/500		G1/500
BVH	(80°-90°)	1.1	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: P638005
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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	38°	45°	55°	65°	75°	85°
0°	2925.9	2925.9	2925.9	2925.9	2925.9	2925.9	2925.9	2925.9	2925.9	2925.9	2925.9
2.5°	2725.1	2719.5	2730.7	2753.0	2773.9	2780.9	2801.8	2831.1	2849.2	2892.5	2927.3
5°	2602.4	2599.6	2610.8	2630.3	2658.2	2667.9	2700.0	2748.8	2797.6	2872.9	2946.9
7.5°	2490.8	2489.4	2506.2	2549.4	2589.8	2602.4	2641.4	2701.4	2767.0	2882.7	2991.5
10°	2344.4	2345.8	2377.9	2439.2	2513.1	2538.2	2601.0	2687.5	2772.5	2921.8	3072.4
12.5°	2297.0	2299.8	2316.5	2363.9	2444.8	2476.9	2564.7	2695.8	2804.6	2977.5	3177.0
15°	2412.7	2412.7	2398.8	2404.3	2440.6	2469.9	2561.9	2723.7	2859.0	3044.5	3280.2
17.5°	2637.3	2628.9	2594.0	2546.6	2534.0	2543.8	2617.7	2783.7	2935.7	3122.6	3397.3
20°	2941.3	2944.1	2875.7	2776.7	2697.2	2695.8	2740.5	2889.7	3045.9	3216.0	3524.2
22.5°	3309.5	3298.3	3207.7	3072.4	2934.3	2923.2	2941.3	3051.5	3204.9	3363.9	3680.4
25°	3736.2	3730.6	3602.3	3421.0	3238.3	3211.8	3211.8	3320.6	3432.2	3574.4	3867.3
27.5°	4182.5	4182.5	4058.4	3849.2	3606.5	3559.1	3552.1	3680.4	3754.4	3782.2	4024.9
30°	4641.3	4635.8	4513.0	4298.3	4038.9	3990.0	3970.5	4065.4	4118.4	4034.7	4221.6
32.5°	5107.1	5116.9	4992.8	4793.4	4561.8	4529.8	4469.8	4469.8	4513.0	4395.9	4531.2
35°	5607.8	5605.0	5507.4	5372.1	5174.1	5137.8	5038.8	4884.0	4949.6	4898.0	4959.3
37.5°	6049.9	6070.8	6023.4	5923.0	5762.6	5726.4	5563.2	5282.9	5333.1	5414.0	5468.4
40°	6499.0	6515.7	6563.1	6531.1	6328.8	6261.9	5971.8	5511.6	5567.4	5844.9	6001.1
42.5°	6939.7	6948.1	7044.3	7097.3	6826.7	6709.6	6281.4	5651.1	5709.6	6182.4	6455.8
45°	7220.0	7238.1	7397.1	7558.9	7266.0	7105.7	6550.6	5829.6	5854.7	6416.7	6791.9
47.5°	7208.9	7250.7	7549.2	7843.4	7644.0	7471.1	6874.1	6115.5	6073.6	6637.1	7013.6
50°	6984.3	7034.5	7462.7	7929.9	7915.9	7755.6	7234.0	6529.7	6398.6	6832.3	7041.5
52.5°	6518.5	6663.6	7310.7	7941.0	8134.9	8054.0	7678.9	7087.5	6837.9	7112.6	7086.1
55°	5511.6	5690.1	6849.0	7846.2	8332.9	8342.7	8146.1	7669.1	7314.9	7595.2	7360.9
57.5°	4183.9	4326.2	5271.7	6984.3	8005.2	8165.6	8327.4	7975.9	7609.1	7924.3	7425.0
60°	2521.5	2686.1	3301.1	5125.3	6465.5	6738.9	7373.4	7305.1	6863.0	6998.3	6089.0
62.5°	1022.3	1108.7	1524.3	2824.1	4069.5	4324.8	4932.8	5036.0	4927.2	4789.2	3693.0
65°	373.8	408.6	610.8	1167.3	1871.6	1965.0	2285.8	2468.5	2619.1	2230.0	1373.7
67.5°	231.5	253.8	397.5	599.7	680.6	633.2	644.3	768.4	733.6	453.3	245.5
70°	171.5	189.7	311.0	415.6	274.7	212.0	143.6	153.4	138.1	121.3	119.9
72.5°	118.5	135.3	232.9	245.5	106.0	75.3	53.0	73.9	83.7	82.3	85.1
75°	78.1	90.7	146.4	96.2	26.5	20.9	18.1	39.0	50.2	50.2	51.6
77.5°	46.0	53.0	51.6	19.5	5.6	5.6	4.2	7.0	11.2	12.6	15.3
80°	5.6	4.2	2.8	2.8	2.8	2.8	2.8	2.8	4.2	4.2	4.2
82.5°	1.4	1.4	1.4	2.8	2.8	2.8	2.8	2.8	2.8	4.2	4.2
85°	0.0	0.0	1.4	1.4	2.8	2.8	2.8	2.8	2.8	4.2	4.2
87.5°	0.0	0.0	1.4	1.4	2.8	2.8	2.8	2.8	2.8	4.2	4.2
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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Scaled Data Report

REPORT NUMBER: P638005
CATALOG NUMBER: GWS-SA4D-830-U-T3R-W-GRSBK

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2925.9	2925.9	2925.9	2925.9	2925.9	2925.9	2925.9	2925.9	2925.9	2925.9	2925.9
2.5°	2953.8	2944.1	2984.5	3013.8	3037.5	3048.7	3033.3	3031.9	3031.9	3001.3	2992.9
5°	2988.7	2992.9	3050.1	3075.2	3079.4	3065.4	3030.5	3006.8	2992.9	2960.8	2942.7
7.5°	3055.6	3069.6	3124.0	3119.8	3082.1	3018.0	2925.9	2854.8	2808.8	2758.6	2727.9
10°	3151.9	3178.4	3211.8	3153.3	3033.3	2870.2	2680.5	2545.2	2464.3	2407.1	2372.3
12.5°	3269.0	3295.5	3284.4	3146.3	2896.7	2605.2	2361.1	2165.9	2072.4	2020.8	1984.6
15°	3387.6	3404.3	3331.8	3062.6	2655.4	2263.5	1991.5	1797.7	1683.3	1641.5	1610.8
17.5°	3508.9	3504.7	3340.1	2898.0	2333.2	1878.6	1610.8	1478.3	1446.2	1439.3	1436.5
20°	3635.8	3598.2	3306.7	2662.4	1945.5	1497.8	1345.8	1354.2	1412.8	1440.7	1446.2
22.5°	3780.9	3686.0	3223.0	2343.0	1549.4	1248.2	1263.5	1345.8	1425.3	1463.0	1468.5
25°	3935.7	3766.9	3083.5	1933.0	1221.7	1147.8	1238.4	1333.3	1418.3	1464.4	1469.9
27.5°	4037.5	3786.4	2854.8	1520.2	1048.8	1108.7	1205.0	1295.6	1383.5	1433.7	1440.7
30°	4147.6	3778.1	2543.8	1171.5	990.2	1075.3	1158.9	1241.2	1322.1	1377.9	1383.5
32.5°	4309.4	3772.5	2164.5	951.1	966.5	1048.8	1110.1	1178.5	1234.3	1266.3	1262.1
35°	4521.4	3765.5	1722.4	857.7	952.5	1027.8	1076.7	1108.7	1047.4	1027.8	1032.0
37.5°	4793.4	3782.2	1350.0	818.6	948.4	1022.3	1064.1	972.1	877.2	841.0	835.4
40°	5094.6	3825.5	1029.2	803.3	962.3	1036.2	1016.7	864.7	747.5	676.4	661.1
42.5°	5397.2	3872.9	814.5	797.7	986.0	1075.3	938.6	786.6	610.8	570.4	564.8
45°	5621.8	3864.5	704.3	788.0	1006.9	1097.6	917.7	675.0	545.3	527.2	528.6
47.5°	5734.7	3772.5	644.3	765.7	1015.3	1075.3	866.1	629.0	500.7	520.2	536.9
50°	5674.8	3534.0	588.5	722.4	997.2	1046.0	783.8	594.1	478.4	559.2	596.9
52.5°	5602.2	3241.1	527.2	655.5	953.9	1005.5	751.7	584.4	464.4	539.7	567.6
55°	*5698.5*	*3055.6*	*426.8*	*552.3*	*868.9*	*910.7*	*726.6*	*583.0*	*432.3*	*419.8*	*415.6*
57.5°	5563.2	2686.1	305.4	397.5	666.6	721.0	708.5	573.2	383.5	382.1	387.7
60°	4299.7	1638.7	209.2	252.4	408.6	460.2	642.9	548.1	330.5	304.0	305.4
62.5°	2443.4	697.3	143.6	156.2	209.2	248.2	490.9	497.9	305.4	290.1	305.4
65°	850.7	249.6	111.6	104.6	115.8	132.5	281.7	384.9	277.5	251.0	253.8
67.5°	175.7	124.1	99.0	86.5	86.5	86.5	143.6	239.9	228.7	199.4	202.2
70°	111.6	106.0	86.5	73.9	71.1	65.5	82.3	132.5	157.6	145.0	146.4
72.5°	82.3	80.9	68.3	60.0	53.0	47.4	51.6	65.5	80.9	83.7	85.1
75°	50.2	51.6	44.6	37.7	33.5	29.3	30.7	30.7	30.7	27.9	30.7
77.5°	15.3	16.7	13.9	11.2	9.8	9.8	9.8	8.4	7.0	4.2	4.2
80°	4.2	4.2	4.2	4.2	4.2	2.8	2.8	1.4	1.4	0.0	0.0
82.5°	4.2	4.2	4.2	4.2	2.8	2.8	1.4	1.4	0.0	0.0	0.0
85°	4.2	4.2	4.2	4.2	2.8	2.8	1.4	1.4	0.0	0.0	0.0
87.5°	4.2	4.2	4.2	4.2	2.8	2.8	1.4	1.4	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

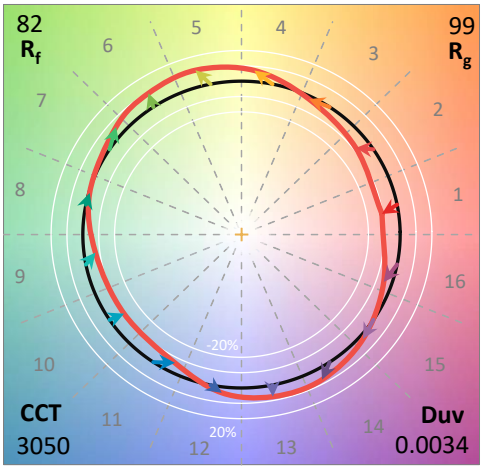
Test Information

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

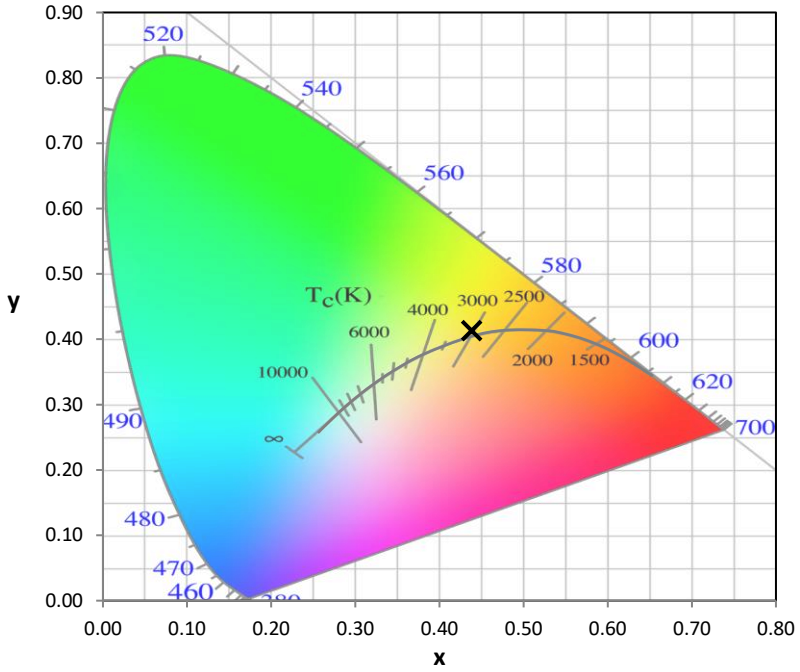
Stabilization Time:	20M
Operation Time:	1H 20M
Sphere Temperature (°C):	24.2

REPORT NUMBER: SP1-2408-195-9

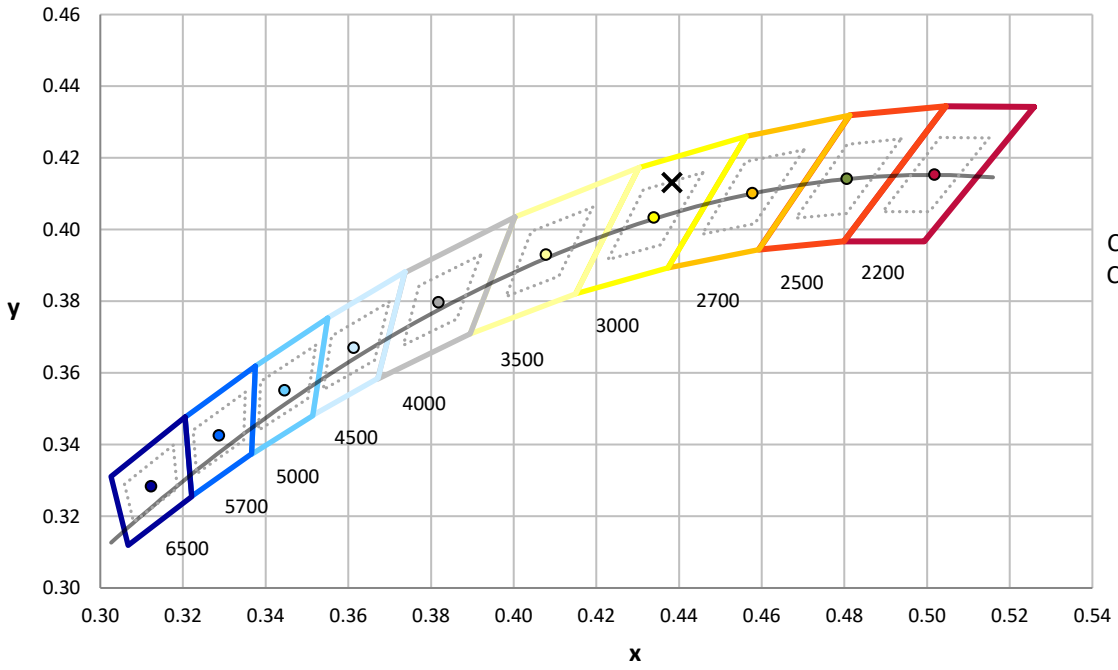
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

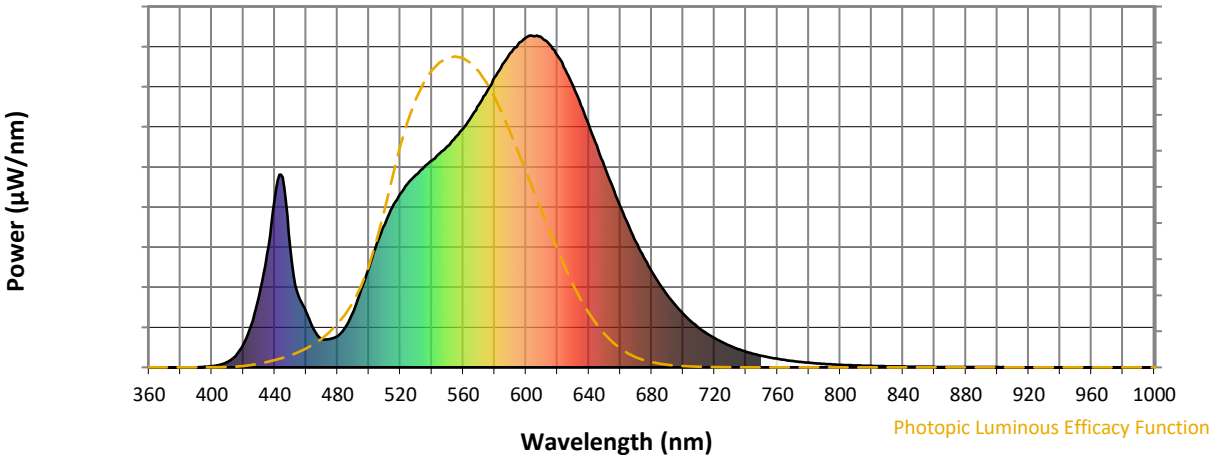


CCT = 3050K
CIE x = 0.4383
CIE y = 0.4131
Duv = 0.0034

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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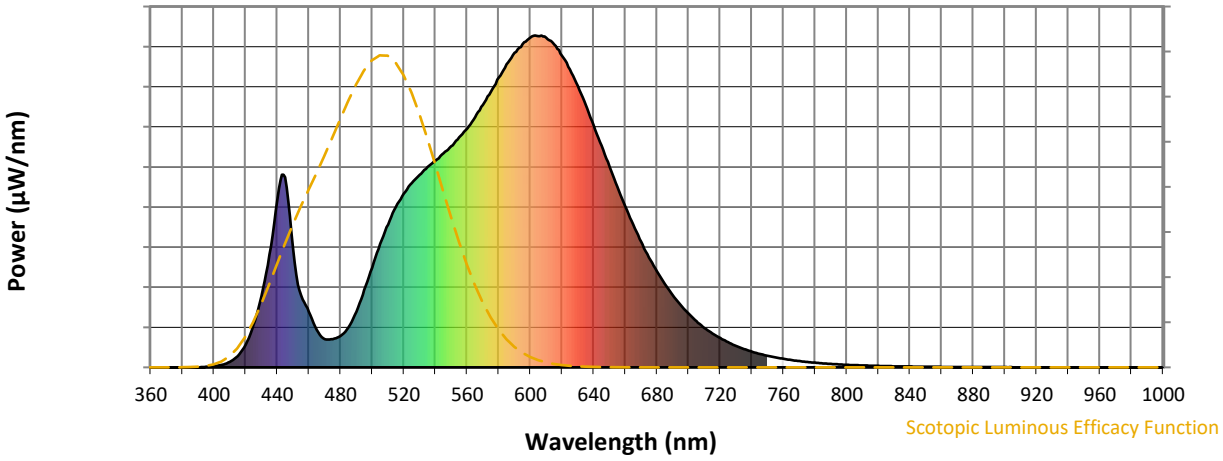
Scotopic Flux vs. Wavelength



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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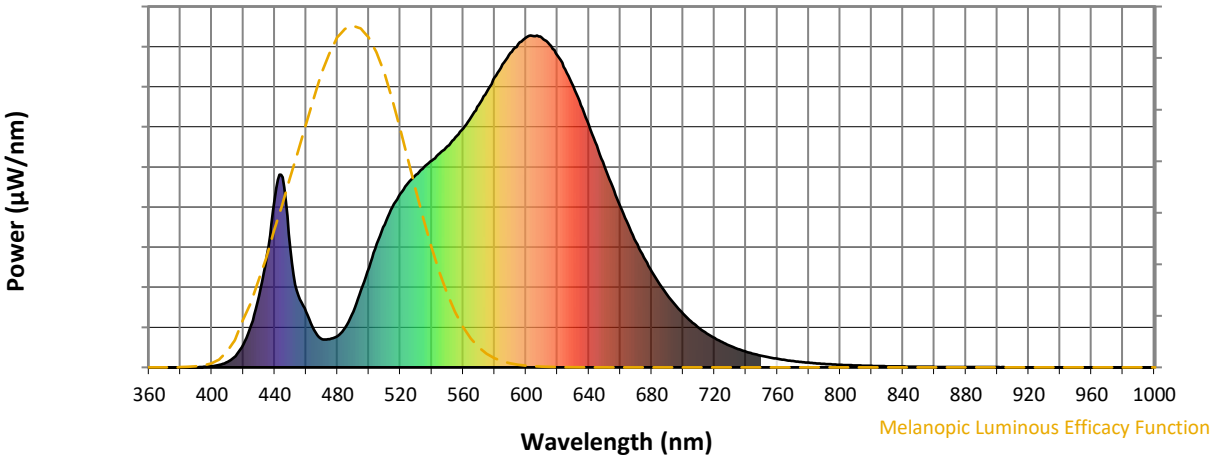
Melanopic Flux vs. Wavelength



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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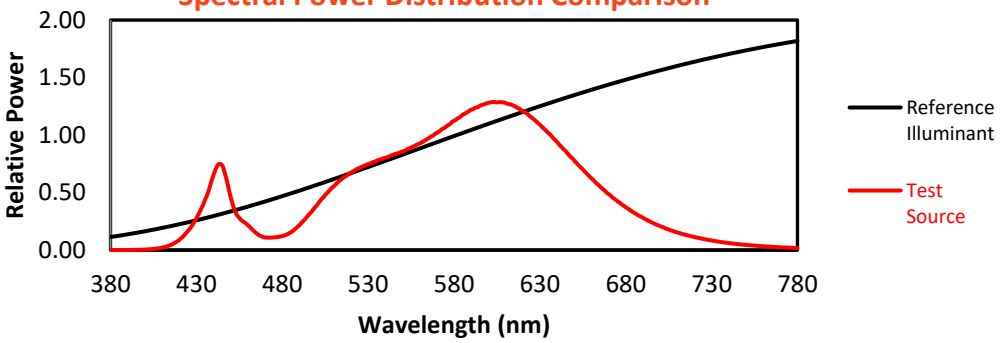
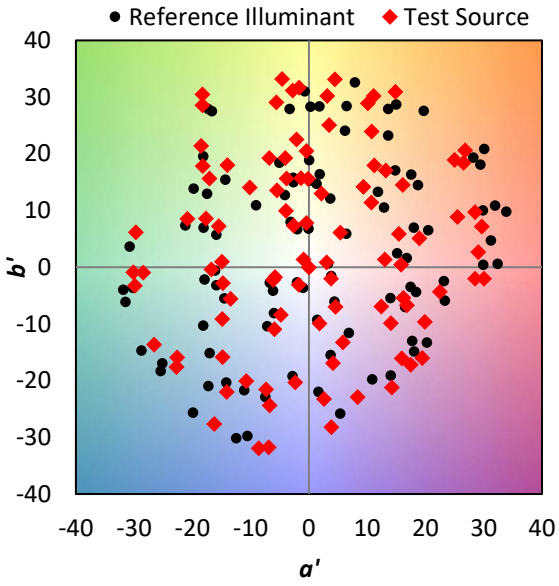
Summary

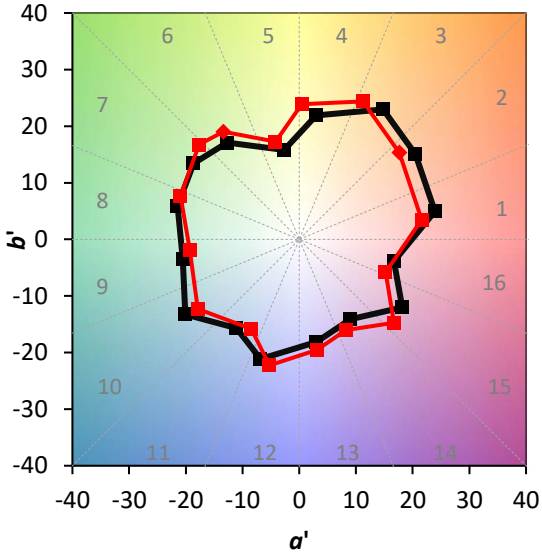
R_f = 81.5
R_g = 99.2
CIE R_a = 81.0
R_9 = 7.1

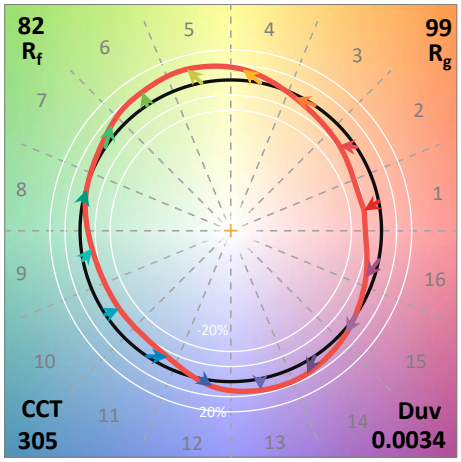
Spectral Power Distribution Comparison

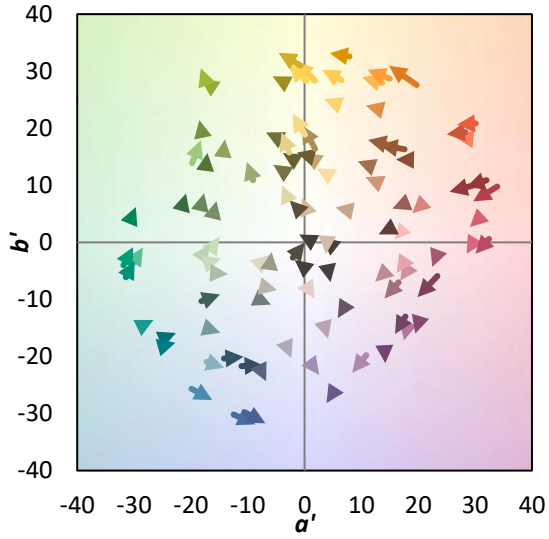


Color Vector Graphics









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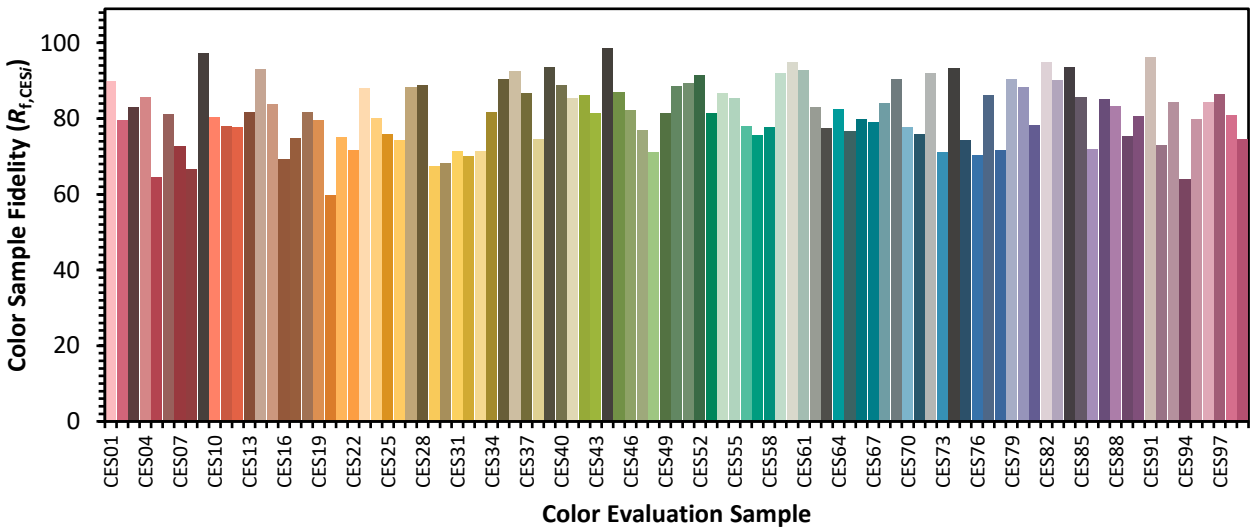
Individual Sample Fidelity Index ($R_{f,i}$)

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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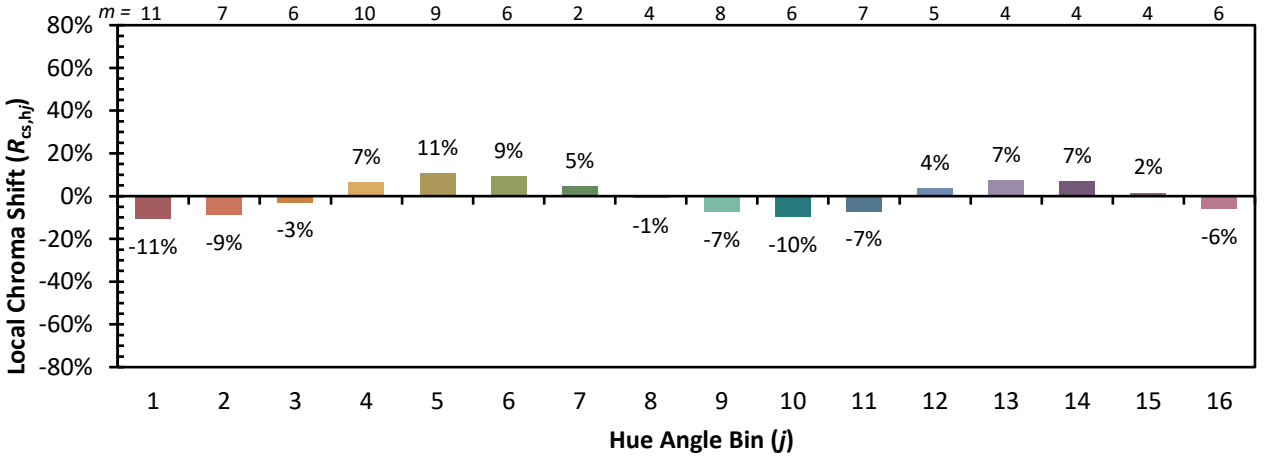
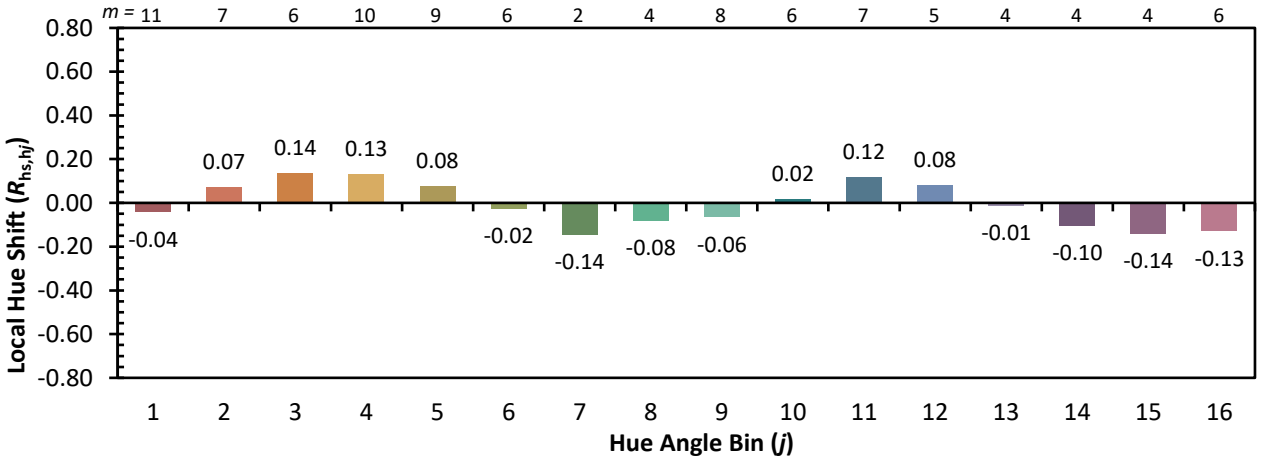
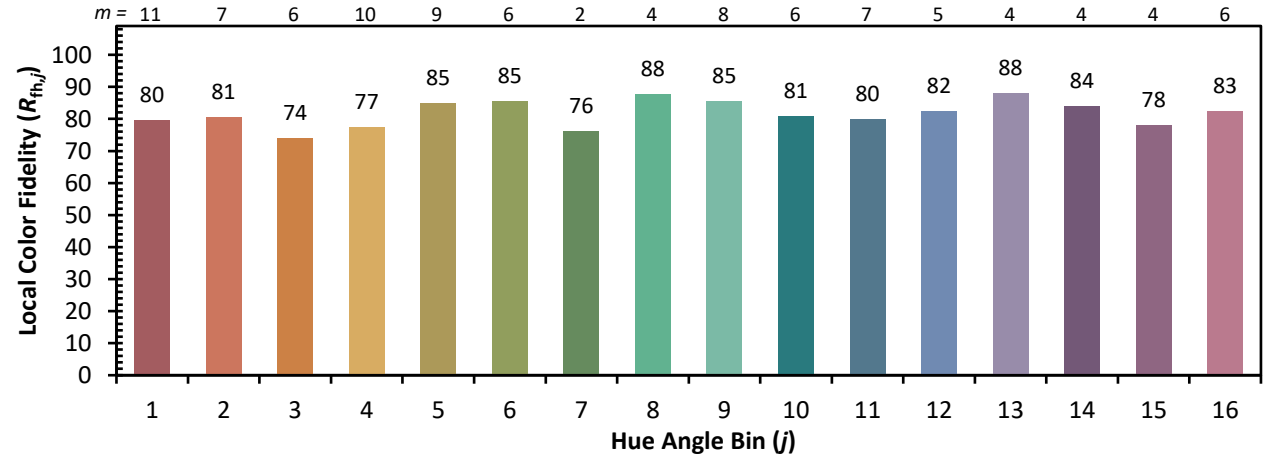
Color Rendition by Hue-Angle Bin







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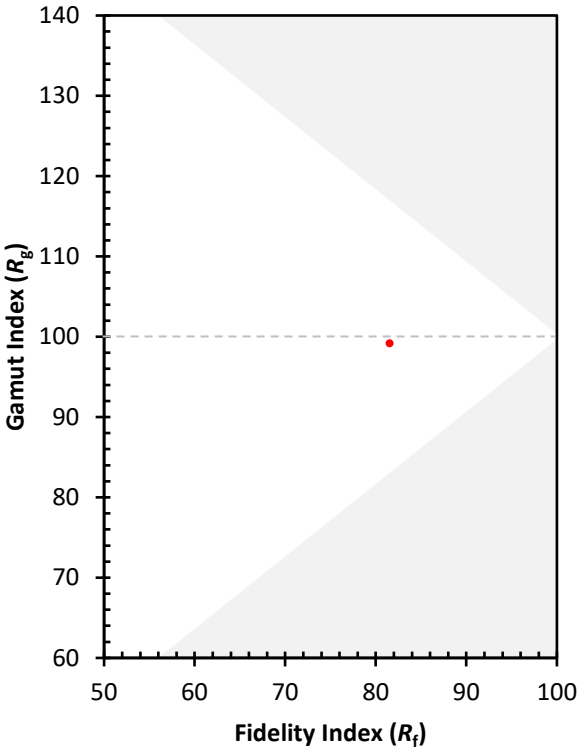
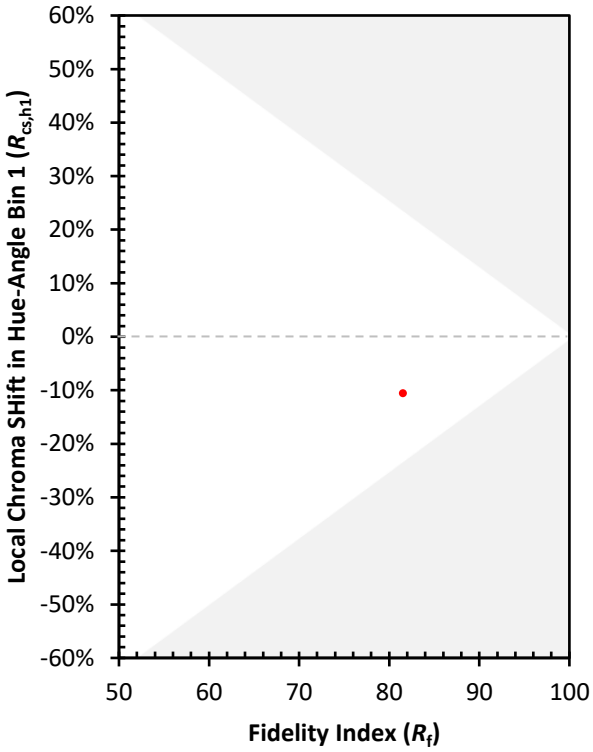
Measure Comparisons





(END OF REPORT)