

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: McGRAW-EDISON

Report Number: P323032

Luminaire Tested: **GLEON-SA8A-830-U-T4W-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P323032
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-19)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: GLEON-SA8A-830-U-T4W-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(8) 80 CRI, 3000K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV WIDE OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 21511 lumens
Efficiency: N/A
Efficacy: 83.7 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G4

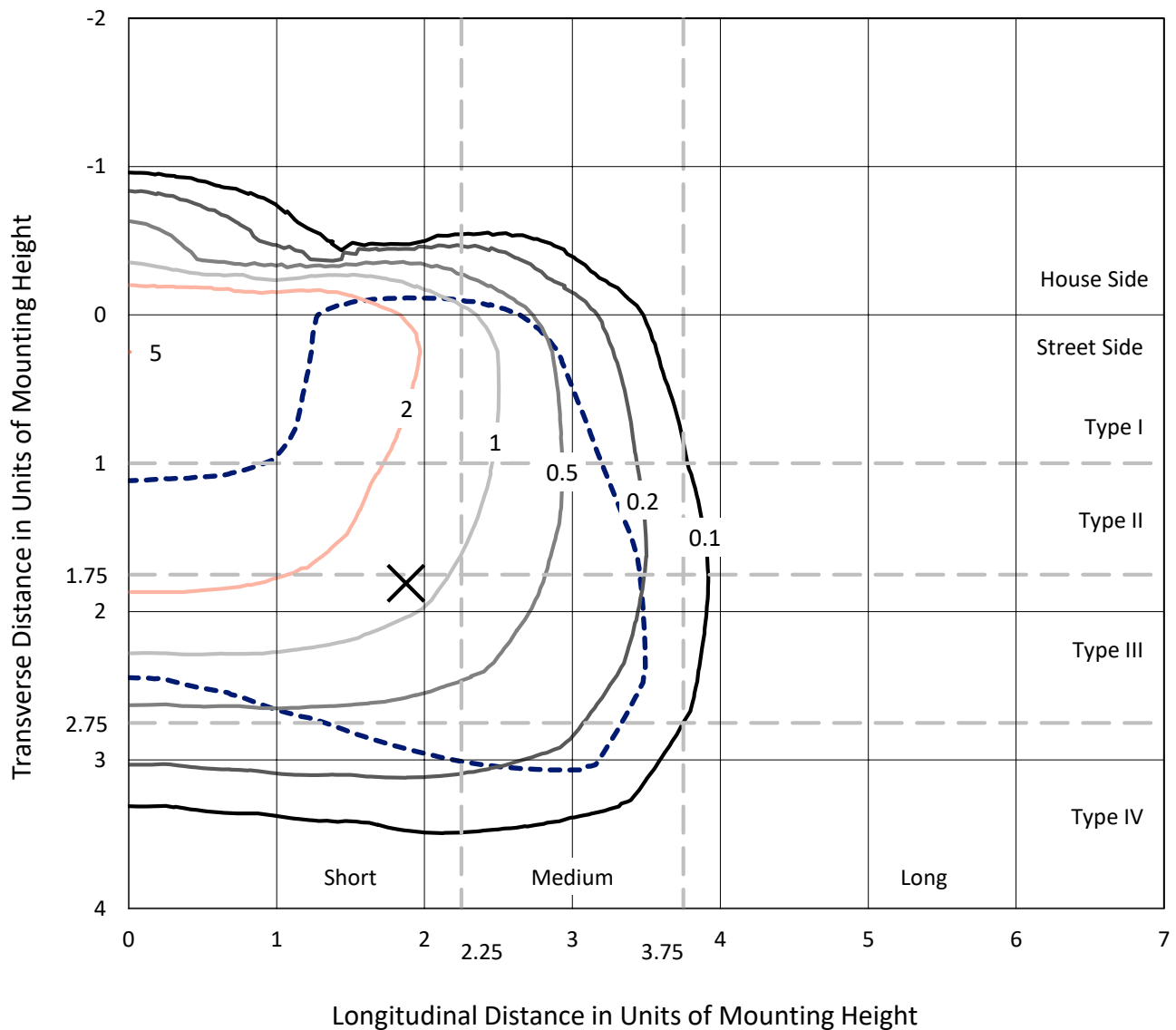
Input Watts (W): 257
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

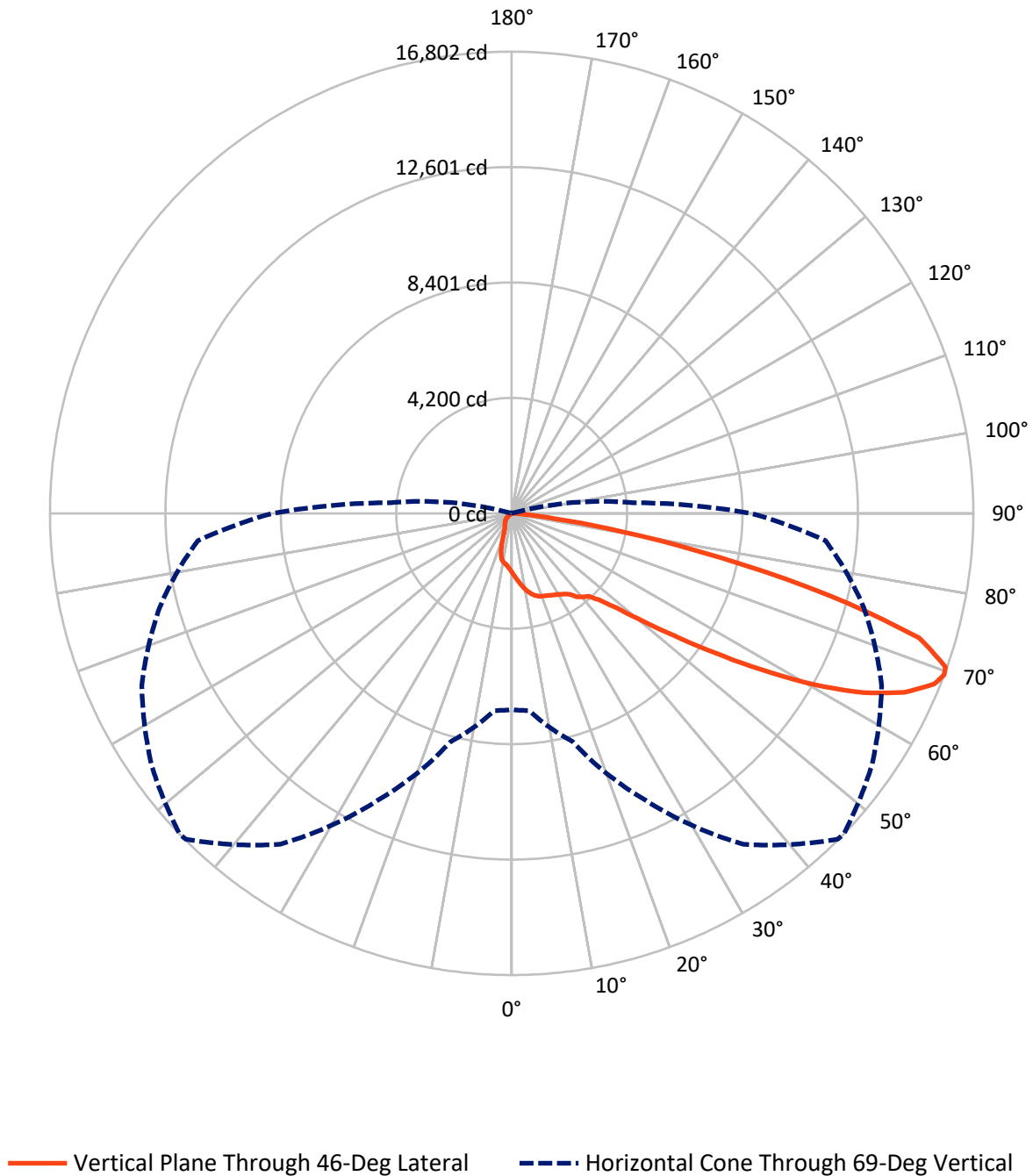
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5 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	2207.6	0.0	2207.6
	% Fixture	10.3	0.0	10.3
Street Side	Lumens	19303.4	0.0	19303.4
	% Fixture	89.7	0.0	89.7
Total	Lumens	21511.0	0.0	21511.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	214.5	1.0
10°-20°	650.8	3.0
20°-30°	1023.5	4.8
30°-40°	1467.8	6.8
40°-50°	2536.8	11.8
50°-60°	5011.8	23.3
60°-70°	7004.4	32.6
70°-80°	3383.9	15.7
80°-90°	217.5	1.0
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°	21511.0	100.0
0°-180°	21511.0	100.0

Coefficient of Utilization



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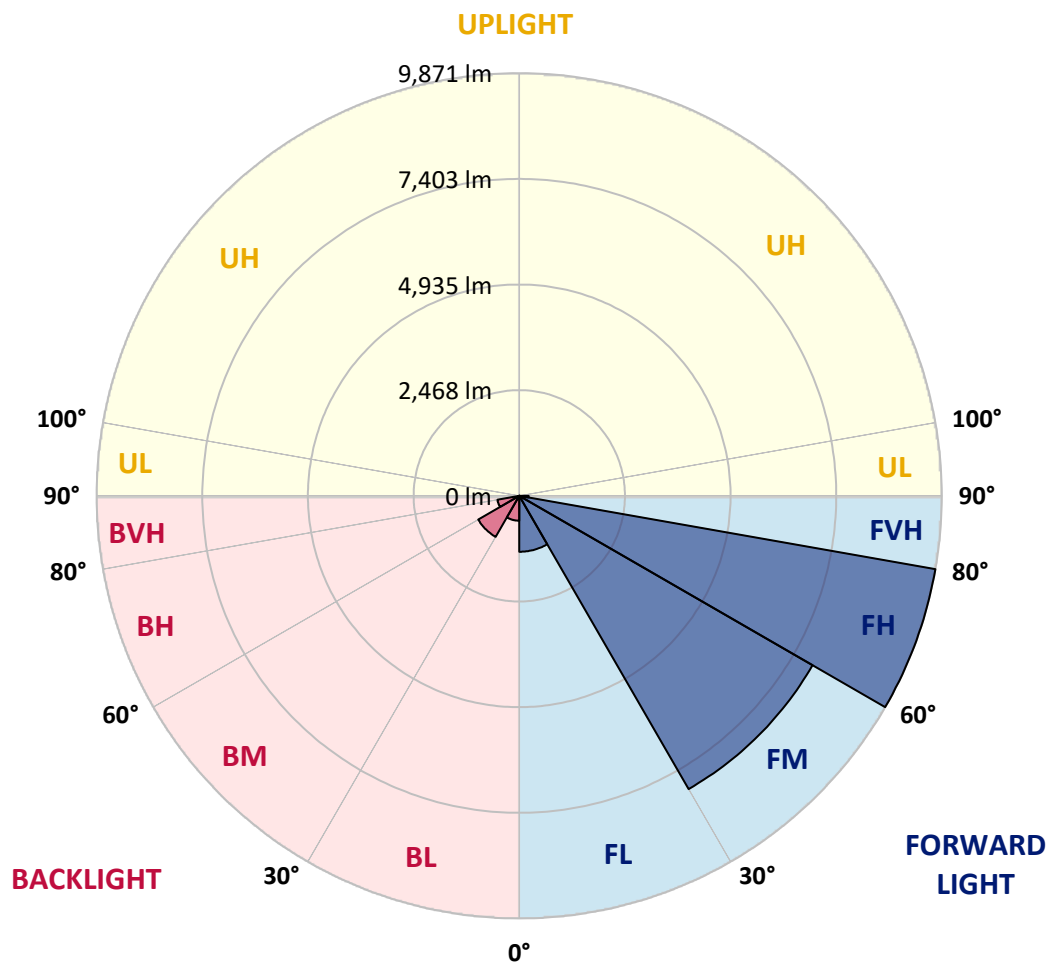
CATALOG NUMBER: GLEON-SA8A-830-U-T4W-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1307.0	6.1			
FM	(30°-60°)	7910.1	36.8			
FH	(60°-80°)	9870.6	45.9			G4/12000
FVH	(80°-90°)	215.7	1.0			G2/225
BL	(0°-30°)	581.8	2.7	B2/1000		
BM	(30°-60°)	1106.3	5.1	B2/2500		
BH	(60°-80°)	517.6	2.4	B2/1000		G2/1000
BVH	(80°-90°)	1.8	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-G4

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	2155.3	2155.3	2155.3	2155.3	2155.3	2155.3	2155.3	2155.3	2155.3	2155.3	2155.3
2.5°	2394.4	2391.3	2377.2	2371.2	2336.9	2316.7	2308.6	2283.4	2247.1	2210.8	2170.5
5°	2666.7	2665.7	2639.4	2614.2	2549.7	2489.2	2478.1	2419.6	2337.9	2261.2	2184.6
7.5°	2945.0	2931.9	2905.7	2857.3	2763.5	2666.7	2657.6	2574.9	2458.9	2348.0	2238.0
10°	3181.0	3173.0	3138.7	3065.1	2955.1	2845.2	2834.1	2732.2	2601.1	2465.0	2324.8
12.5°	3364.6	3358.6	3313.2	3221.4	3104.4	2990.4	2975.3	2884.5	2744.3	2592.0	2426.6
15°	3476.6	3473.5	3418.1	3320.2	3205.2	3106.4	3093.3	3013.6	2883.5	2724.2	2537.6
17.5°	3502.8	3503.8	3446.3	3347.5	3252.6	3182.0	3172.0	3111.4	3002.5	2844.2	2648.5
20°	3444.3	3456.4	3404.9	3319.2	3260.7	3223.4	3215.3	3179.0	3087.2	2938.0	2737.3
22.5°	3361.6	3367.6	3332.3	3274.8	3250.6	3257.7	3253.7	3233.5	3155.8	3018.7	2825.0
25°	3311.1	3311.1	3290.0	3241.6	3257.7	3301.1	3302.1	3298.0	3236.5	3117.5	2931.9
27.5°	3309.1	3303.1	3278.9	3242.6	3286.9	3353.5	3357.5	3384.8	3346.4	3237.5	3065.1
30°	3389.8	3382.8	3331.3	3283.9	3340.4	3412.0	3422.1	3481.6	3462.4	3367.6	3213.3
32.5°	3578.4	3553.2	3439.2	3361.6	3403.9	3489.7	3502.8	3597.6	3627.8	3528.0	3356.5
35°	3836.6	3756.9	3592.5	3508.8	3512.9	3602.6	3614.7	3753.9	3843.7	3675.2	3467.5
37.5°	4192.6	4153.3	3886.0	3662.1	3680.3	3816.4	3851.7	4003.0	3977.8	3755.9	3593.5
40°	4973.3	4911.8	4627.3	4091.8	3840.6	3989.9	4001.0	4081.7	4083.7	3938.5	3855.8
42.5°	6036.3	6011.1	5711.6	4871.4	4156.3	4105.9	4126.1	4262.2	4414.5	4323.8	4319.7
45°	7213.3	7200.2	6882.5	5906.2	4794.8	4486.1	4511.3	4693.9	4985.4	5005.6	5133.6
47.5°	8160.4	8154.3	7971.8	7061.0	5772.1	5130.6	5138.7	5332.3	5844.7	6097.8	6302.6
50°	9023.7	9053.0	8908.7	8310.6	7103.4	6140.2	6121.0	6250.1	7073.1	7487.7	7741.8
52.5°	10223.9	10265.3	9860.8	9476.6	8500.3	7392.8	7377.7	7512.9	8549.7	8860.3	8905.7
55°	11283.9	11213.3	10893.6	10782.7	10203.7	8940.0	8936.0	9055.0	9977.8	10109.9	10193.7
57.5°	11751.9	11724.7	11879.0	12133.1	11987.9	10768.5	10759.5	10668.7	11255.7	11269.8	11527.0
60°	12047.4	12080.7	12553.7	13337.4	13699.5	12736.3	12677.8	12124.1	12476.1	12444.8	12720.1
62.5°	11825.5	11891.1	12742.3	14048.4	14980.3	14453.9	14371.2	13457.4	13518.9	13411.0	13667.2
65°	10647.5	10749.4	12144.2	13914.3	15615.7	15796.3	15712.6	14634.4	14347.0	14169.5	14027.2
67.5°	8645.5	8706.0	10162.4	12747.4	15329.3	16597.1	16579.9	15666.2	14972.3	14041.4	12938.0
69°	7144.7	7204.2	8606.2	11518.9	14699.0	16768.5	16801.8	15997.0	14853.3	13262.7	11463.4
70°	6051.4	6115.0	7421.1	10466.0	13967.7	16688.9	16748.4	15965.7	14512.4	12361.1	10169.4
72.5°	3174.0	3228.4	4568.8	7210.3	11386.8	15324.3	15504.8	14616.2	12301.6	8977.3	6013.1
75°	997.5	1028.7	1784.2	3769.0	7796.3	11915.3	11956.6	11465.5	8735.3	4938.0	2504.3
77.5°	380.2	371.2	594.0	1388.8	3941.5	7502.8	7755.9	7164.9	4584.0	1745.8	577.9
80°	204.7	205.7	308.6	574.9	1686.3	3855.8	4069.6	3472.5	1628.8	544.6	133.1
82.5°	88.8	92.8	173.5	304.6	774.6	1422.1	1529.0	1272.8	622.3	366.1	49.4
85°	19.2	21.2	83.7	165.4	315.7	399.4	418.6	412.5	396.4	284.4	19.2
87.5°	0.0	0.0	37.3	59.5	79.7	90.8	79.7	103.9	218.9	191.6	10.1
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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CATALOG NUMBER: GLEON-SA8A-830-U-T4W-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2155.3	2155.3	2155.3	2155.3	2155.3	2155.3	2155.3	2155.3	2155.3	2155.3	2155.3
2.5°	2157.3	2139.2	2107.9	2073.6	2049.4	2024.2	2004.0	1995.0	1984.9	1977.8	1986.9
5°	2153.3	2118.0	2057.5	1999.0	1956.6	1922.3	1894.1	1883.0	1871.9	1863.8	1862.8
7.5°	2188.6	2139.2	2046.4	1960.7	1895.1	1848.7	1810.4	1794.3	1781.1	1775.1	1770.0
10°	2256.2	2192.6	2068.6	1956.6	1871.9	1793.2	1710.5	1647.0	1605.6	1586.5	1579.4
12.5°	2343.9	2264.2	2110.9	1977.8	1854.8	1703.5	1528.0	1376.7	1278.9	1246.6	1227.4
15°	2446.8	2348.0	2166.4	2005.0	1792.2	1515.9	1218.4	1020.7	929.9	911.8	891.6
17.5°	2545.6	2436.7	2233.0	2010.1	1655.1	1211.3	892.6	758.4	723.1	735.3	738.3
20°	2632.4	2524.5	2298.5	1965.7	1406.0	908.7	690.9	657.6	670.7	693.9	697.9
22.5°	2720.1	2609.2	2359.1	1848.7	1087.2	689.9	622.3	630.4	643.5	666.7	670.7
25°	2827.0	2712.1	2415.5	1633.9	815.9	587.0	591.0	603.1	616.2	637.4	639.4
27.5°	2950.1	2842.2	2452.9	1354.5	605.1	539.6	552.7	570.9	584.0	604.1	608.2
30°	3113.5	3013.6	2465.0	1065.1	507.3	497.2	503.3	525.5	544.6	562.8	565.8
32.5°	3266.8	3183.1	2424.6	803.8	470.0	457.9	457.9	471.0	493.2	510.3	514.4
35°	3408.0	3353.5	2295.5	588.0	441.8	421.6	411.5	411.5	425.6	439.7	443.8
37.5°	3594.6	3592.5	2086.7	469.0	414.5	391.3	370.1	354.0	349.0	352.0	354.0
40°	3914.3	3917.3	1814.4	420.6	391.3	360.1	327.8	298.5	271.3	262.2	261.2
42.5°	4413.5	4368.1	1529.0	397.4	371.2	327.8	279.4	240.0	197.7	184.6	183.6
45°	5206.3	4937.0	1226.4	376.2	350.0	291.5	231.0	177.5	143.2	133.1	133.1
47.5°	6361.1	5684.3	950.1	353.0	321.7	250.1	174.5	128.1	104.9	99.8	100.9
50°	7555.2	6416.5	728.2	323.8	287.4	206.8	129.1	92.8	79.7	79.7	80.7
52.5°	8614.2	6953.1	567.8	292.5	245.1	162.4	97.8	72.6	66.6	65.6	66.6
55°	9605.7	7299.0	434.7	256.2	194.7	121.0	74.6	59.5	55.5	53.5	52.4
57.5°	10561.8	7470.5	325.8	206.8	141.2	87.7	59.5	50.4	46.4	43.4	42.4
60°	11198.2	7331.3	223.9	152.3	97.8	63.5	49.4	43.4	38.3	35.3	34.3
62.5°	11557.2	6951.1	144.2	109.9	69.6	47.4	39.3	36.3	29.2	26.2	26.2
65°	11412.0	6323.8	100.9	78.7	50.4	35.3	29.2	29.2	21.2	17.1	16.1
67.5°	10113.0	5342.4	76.7	58.5	36.3	26.2	22.2	25.2	13.1	8.1	8.1
69°	8701.0	4427.6	65.6	48.4	30.3	21.2	19.2	23.2	9.1	6.1	5.0
70°	7562.3	3819.5	59.5	42.4	25.2	18.2	17.1	22.2	9.1	5.0	4.0
72.5°	4524.5	2130.1	45.4	30.3	16.1	14.1	14.1	25.2	9.1	5.0	4.0
75°	1828.5	750.4	33.3	21.2	12.1	12.1	17.1	32.3	8.1	4.0	3.0
77.5°	414.5	164.4	19.2	13.1	8.1	12.1	20.2	25.2	5.0	2.0	0.0
80°	100.9	40.3	12.1	8.1	5.0	9.1	15.1	14.1	1.0	0.0	0.0
82.5°	33.3	14.1	5.0	4.0	1.0	3.0	7.1	4.0	0.0	0.0	0.0
85°	14.1	8.1	2.0	1.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0
87.5°	9.1	3.0	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

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.

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
 CIE u' : 0.2476
 CIE v' : 0.5251
 Duv: 0.0034
 CIE x: 0.4383
 CIE y: 0.4131
 CIE z: 0.1487
 Peak Wavelength (nm): 603
 Dominant Wavelength (nm): 581
 Purity: 55.55201
 R_f: 81.5
 R_g: 99.2

CRI (Ra): 81.0
 R1: 79.6
 R2: 85.6
 R3: 92.0
 R4: 82.6
 R5: 78.9
 R6: 81.7
 R7: 85.2
 R8: 62.0
 R9: 7.1
 R10: 67.0
 R11: 82.7
 R12: 63.2
 R13: 80.3
 R14: 95.0
 R15: 71.7



Test Conditions

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

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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

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CIE 1931 Chromaticity Diagram



CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 3000K 4-step quadrangle

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Photopic Flux vs. Wavelength



Photopic Lumens: NR

λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	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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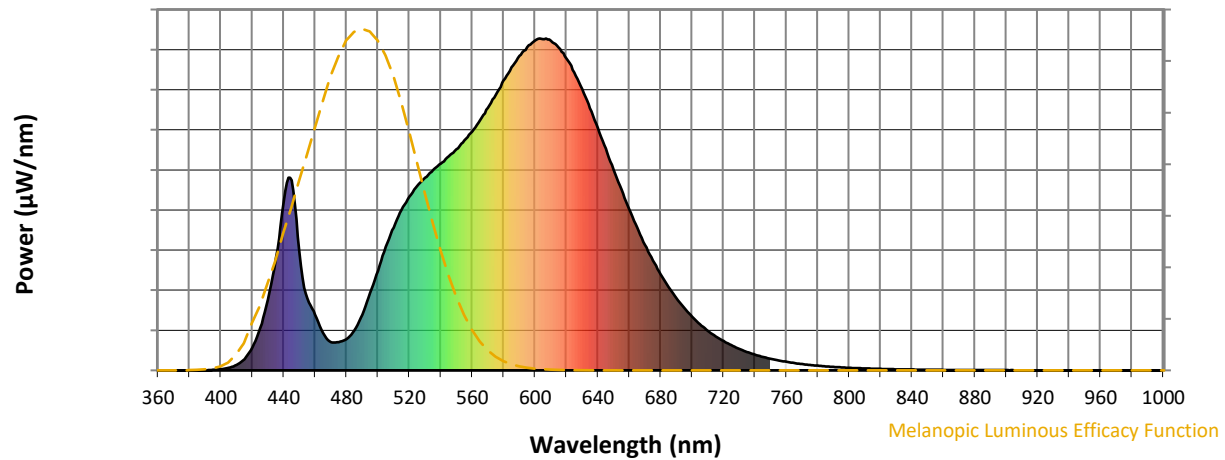
Scotopic Flux vs. Wavelength


Scotopic Lumens: NR
S/P: 1.27

λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	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 $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	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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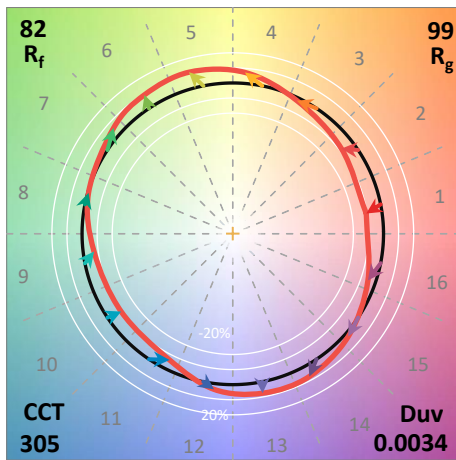
TM-30-18

Summary

$R_f = 81.5$
 $R_g = 99.2$
 $CIE\ R_a = 81.0$
 $R_g = 7.1$

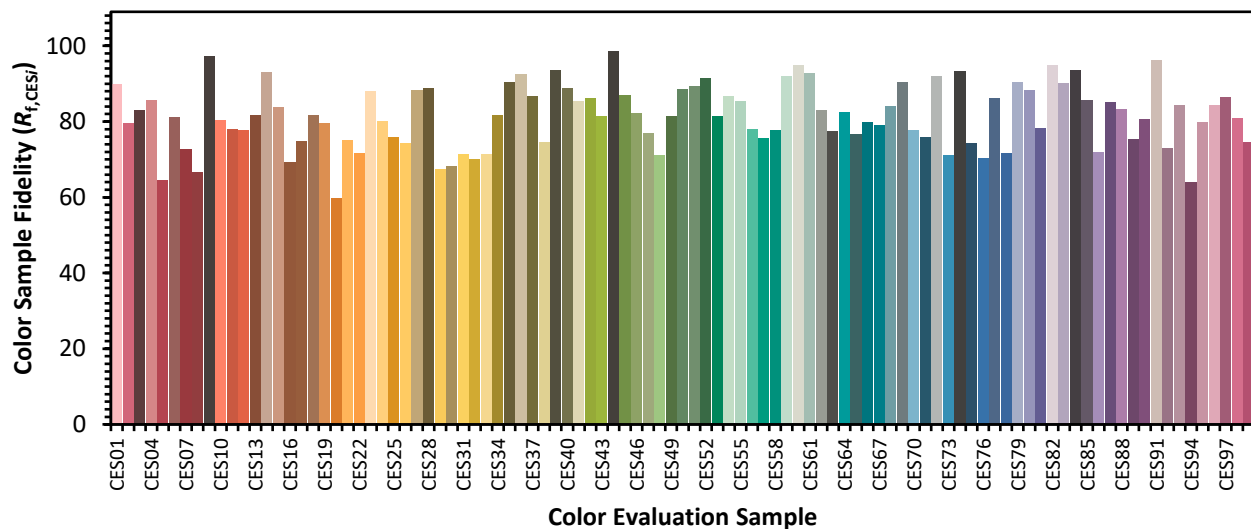


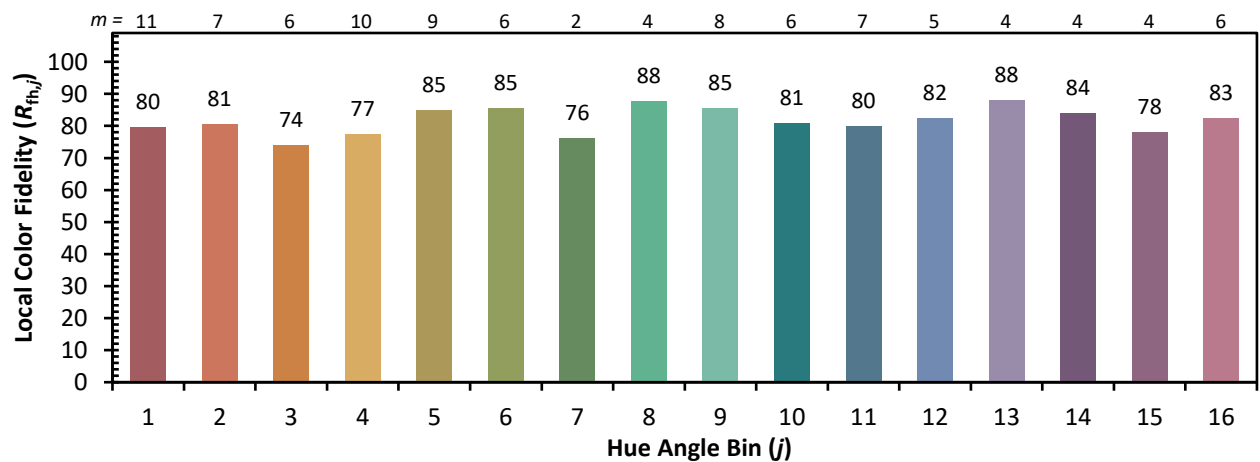
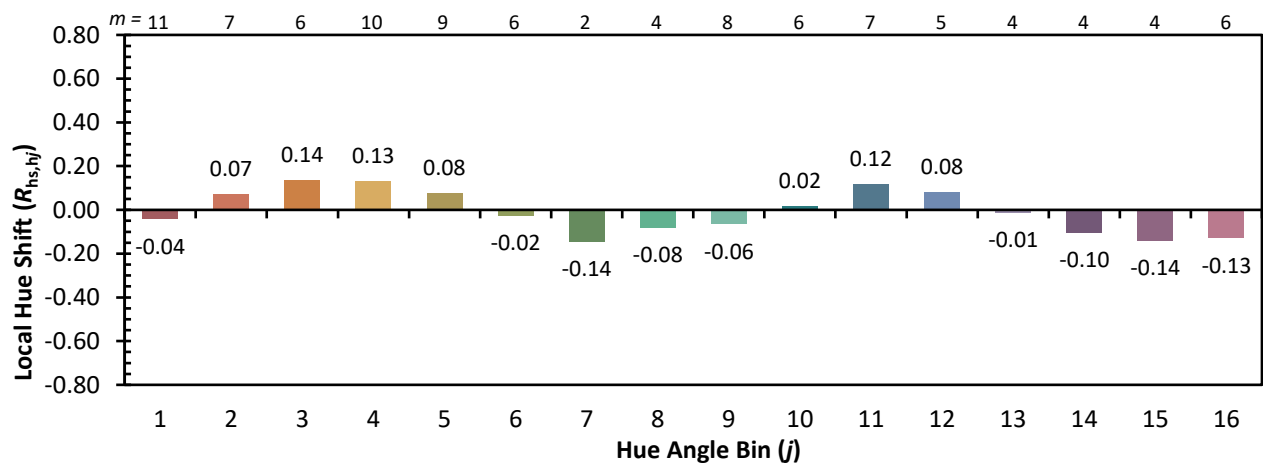
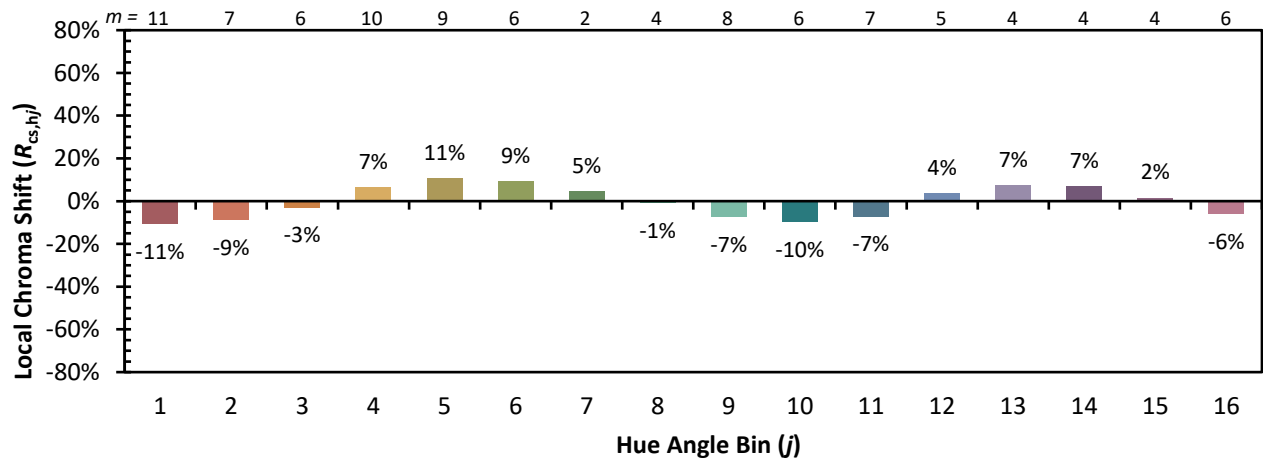
Color Vector Graphics

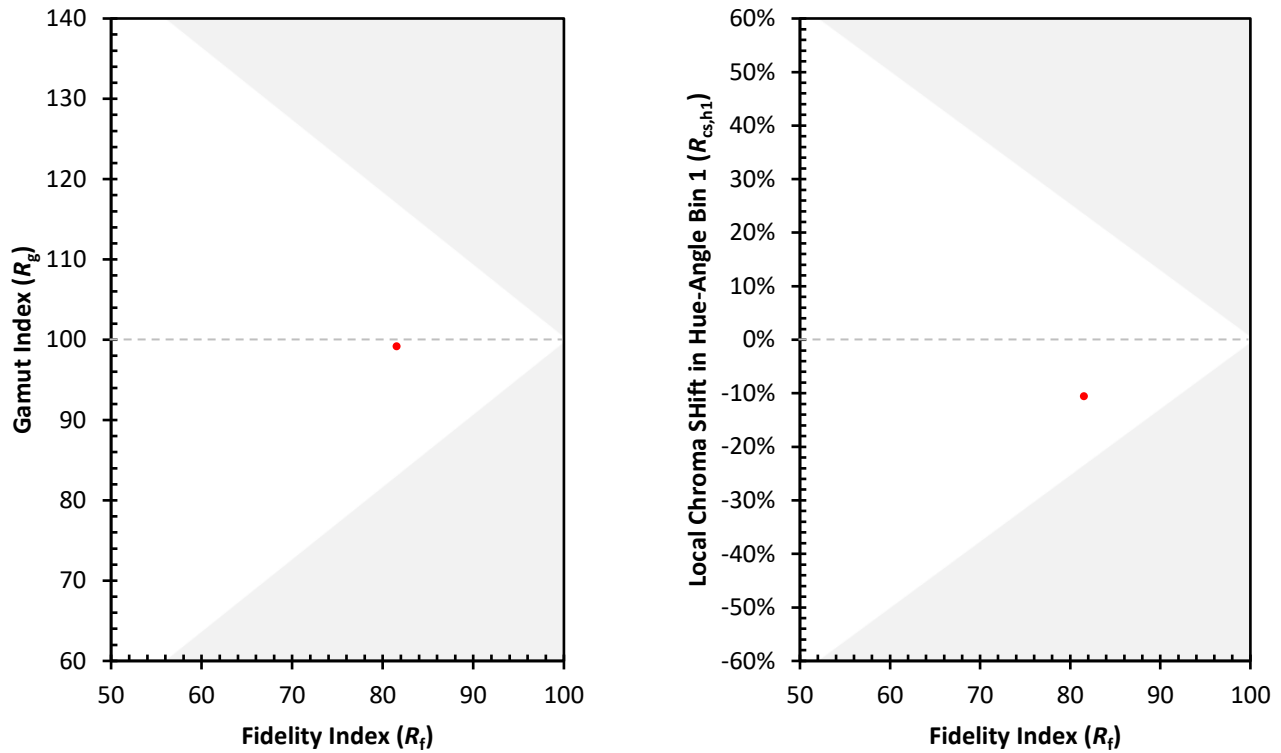


Individual Sample Fidelity Index ($R_{f,i}$)

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	



Color Rendition by Hue-Angle Bin


Measure Comparisons


(END OF REPORT)