

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: P323059

Luminaire Tested: **GLEON-SA5D-830-U-T4W-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P323059
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-SA5D-830-U-T4W-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(5) 80 CRI, 3000K, 1200mA 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: 22336 lumens
Efficiency: N/A
Efficacy: 69.8 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G4

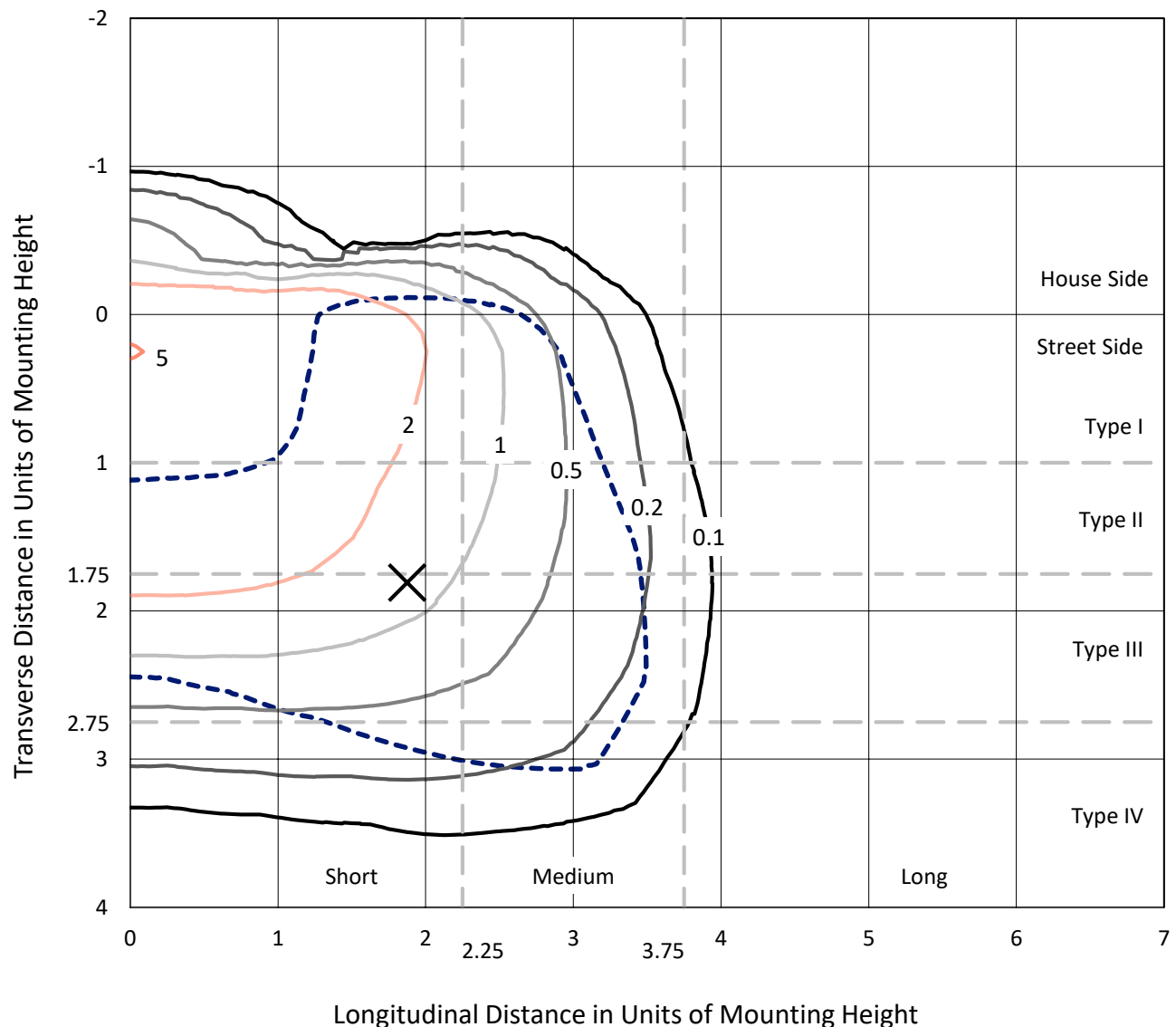
Input Watts (W): 320
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

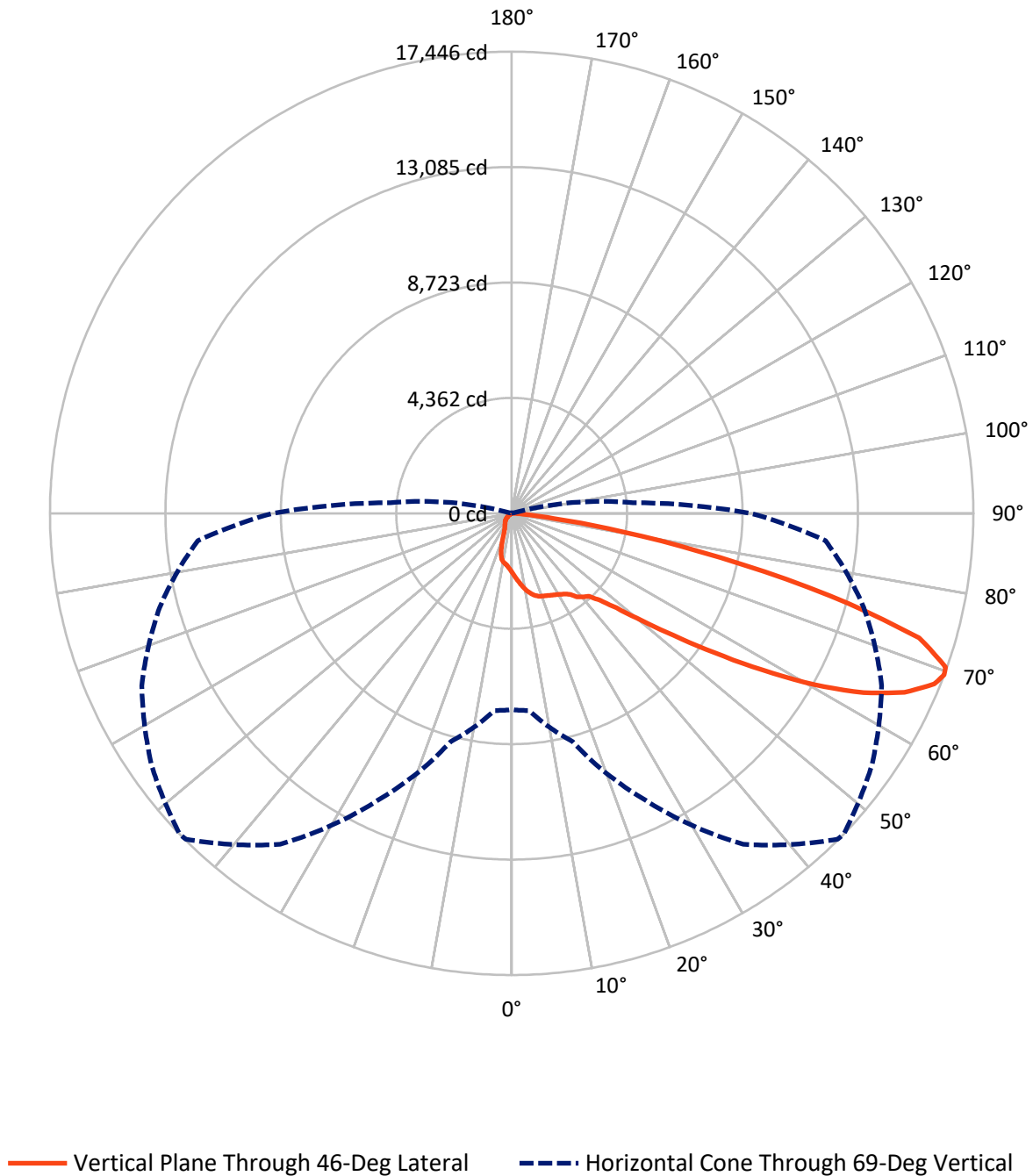
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.2 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	2292.3	0.0	2292.3
	% Fixture	10.3	0.0	10.3
Street Side	Lumens	20043.7	0.0	20043.7
	% Fixture	89.7	0.0	89.7
Total	Lumens	22336.0	0.0	22336.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	222.8	1.0
10°-20°	675.8	3.0
20°-30°	1062.8	4.8
30°-40°	1524.1	6.8
40°-50°	2634.1	11.8
50°-60°	5204.0	23.3
60°-70°	7273.0	32.6
70°-80°	3513.7	15.7
80°-90°	225.8	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°	22336.0	100.0
0°-180°	22336.0	100.0

Coefficient of Utilization



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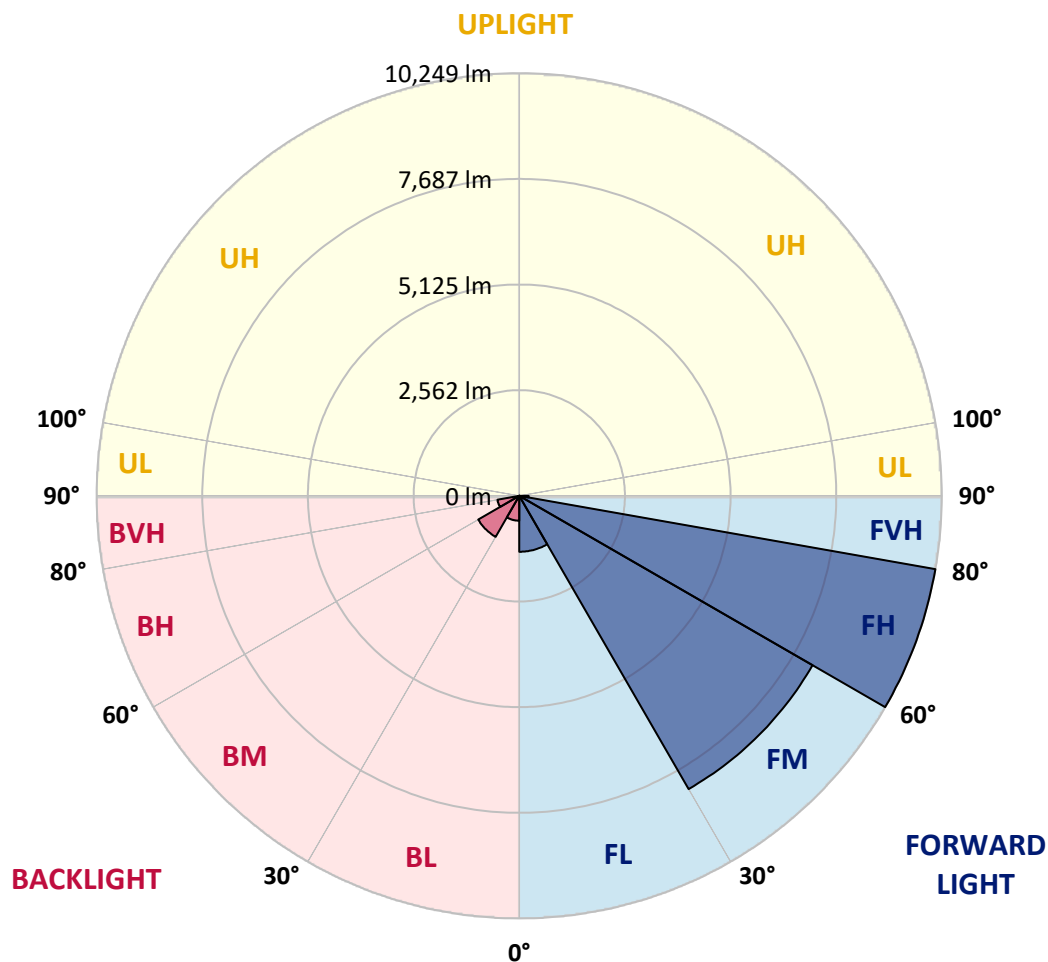
CATALOG NUMBER: GLEON-SA5D-830-U-T4W-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1357.2	6.1			
FM	(30°-60°)	8213.4	36.8			
FH	(60°-80°)	10249.2	45.9			G4/12000
FVH	(80°-90°)	223.9	1.0			G2/225
BL	(0°-30°)	604.2	2.7	B2/1000		
BM	(30°-60°)	1148.7	5.1	B2/2500		
BH	(60°-80°)	537.5	2.4	B2/1000		G2/1000
BVH	(80°-90°)	1.9	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°	2238.0	2238.0	2238.0	2238.0	2238.0	2238.0	2238.0	2238.0	2238.0	2238.0	2238.0
2.5°	2486.2	2483.0	2468.4	2462.1	2426.5	2405.5	2397.2	2371.0	2333.3	2295.6	2253.7
5°	2768.9	2767.9	2740.7	2714.5	2647.5	2584.6	2573.1	2512.4	2427.5	2347.9	2268.4
7.5°	3058.0	3044.4	3017.1	2966.9	2869.5	2768.9	2759.5	2673.6	2553.2	2438.0	2323.9
10°	3303.0	3294.7	3259.1	3182.6	3068.5	2954.3	2942.8	2837.0	2700.9	2559.5	2413.9
12.5°	3493.6	3487.4	3440.2	3344.9	3223.5	3105.1	3089.4	2995.1	2849.6	2691.4	2519.7
15°	3609.9	3606.7	3549.1	3447.6	3328.2	3225.5	3211.9	3129.2	2994.1	2828.6	2634.9
17.5°	3637.1	3638.2	3578.5	3475.8	3377.4	3304.1	3293.6	3230.8	3117.7	2953.3	2750.1
20°	3576.4	3588.9	3535.5	3446.5	3385.8	3347.0	3338.6	3300.9	3205.6	3050.7	2842.2
22.5°	3490.5	3496.8	3460.1	3400.4	3375.3	3382.6	3378.4	3357.5	3276.9	3134.4	2933.4
25°	3438.1	3438.1	3416.1	3365.9	3382.6	3427.7	3428.7	3424.5	3360.6	3237.1	3044.4
27.5°	3436.0	3429.8	3404.6	3366.9	3413.0	3482.1	3486.3	3514.6	3474.8	3361.7	3182.6
30°	3519.8	3512.5	3459.1	3409.9	3468.5	3542.9	3553.3	3615.1	3595.2	3496.8	3336.6
32.5°	3715.7	3689.5	3571.1	3490.5	3534.5	3623.5	3637.1	3735.6	3767.0	3663.3	3485.3
35°	3983.8	3901.0	3730.3	3643.4	3647.6	3740.8	3753.4	3897.9	3991.1	3816.2	3600.5
37.5°	4353.4	4312.6	4035.1	3802.6	3821.4	3962.8	3999.5	4156.6	4130.4	3900.0	3731.4
40°	5164.0	5100.1	4804.8	4248.7	3987.9	4142.9	4154.5	4238.2	4240.3	4089.5	4003.7
42.5°	6267.8	6241.6	5930.6	5058.2	4315.7	4263.4	4284.3	4425.7	4583.8	4489.6	4485.4
45°	7490.0	7476.4	7146.5	6132.7	4978.6	4658.2	4684.4	4873.9	5176.6	5197.5	5330.5
47.5°	8473.3	8467.1	8277.5	7331.8	5993.4	5327.4	5335.8	5536.8	6068.8	6331.7	6544.3
50°	9369.8	9400.2	9250.4	8629.4	7375.8	6375.7	6355.8	6489.8	7344.4	7774.8	8038.7
52.5°	10616.0	10659.0	10239.0	9840.0	8826.3	7676.4	7660.7	7801.0	8877.6	9200.1	9247.3
55°	11716.7	11643.4	11311.4	11196.2	10595.1	9282.9	9278.7	9402.3	10360.5	10497.7	10584.6
57.5°	12202.6	12174.3	12334.6	12598.5	12447.7	11181.5	11172.1	11077.9	11687.4	11702.0	11969.1
60°	12509.5	12544.0	13035.2	13848.9	14224.9	13224.7	13164.0	12589.1	12954.5	12922.1	13208.0
62.5°	12279.1	12347.1	13231.0	14587.2	15554.9	15008.2	14922.3	13973.5	14037.4	13925.3	14191.4
65°	11055.9	11161.6	12610.0	14447.9	16214.6	16402.1	16315.2	15195.7	14897.2	14712.9	14565.2
67.5°	8977.1	9039.9	10552.1	13236.3	15917.2	17233.6	17215.8	16267.0	15546.5	14579.9	13434.2
69°	7418.8	7480.5	8936.2	11960.7	15262.7	17411.7	17446.2	16610.5	15422.9	13771.4	11903.1
70°	6283.5	6349.5	7705.7	10867.4	14503.4	17328.9	17390.7	16578.0	15069.0	12835.2	10559.5
72.5°	3295.7	3352.3	4744.1	7486.8	11823.5	15912.0	16099.4	15176.8	12773.4	9321.6	6243.7
75°	1035.7	1068.2	1852.6	3913.6	8095.3	12372.3	12415.2	11905.2	9070.3	5127.4	2600.3
77.5°	394.8	385.4	616.8	1442.1	4092.7	7790.5	8053.4	7439.7	4759.8	1812.8	600.1
80°	212.6	213.6	320.5	596.9	1751.0	4003.7	4225.7	3605.7	1691.3	565.5	138.2
82.5°	92.2	96.3	180.1	316.3	804.3	1476.6	1587.6	1321.6	646.2	380.2	51.3
85°	19.9	22.0	86.9	171.7	327.8	414.7	434.6	428.3	411.6	295.3	19.9
87.5°	0.0	0.0	38.7	61.8	82.7	94.3	82.7	107.9	227.3	199.0	10.5
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-SA5D-830-U-T4W-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2238.0	2238.0	2238.0	2238.0	2238.0	2238.0	2238.0	2238.0	2238.0	2238.0	2238.0
2.5°	2240.1	2221.2	2188.8	2153.2	2128.0	2101.8	2080.9	2071.5	2061.0	2053.7	2063.1
5°	2235.9	2199.2	2136.4	2075.7	2031.7	1996.1	1966.7	1955.2	1943.7	1935.3	1934.3
7.5°	2272.5	2221.2	2124.9	2035.9	1967.8	1919.6	1879.8	1863.1	1849.5	1843.2	1837.9
10°	2342.7	2276.7	2147.9	2031.7	1943.7	1862.0	1776.1	1710.2	1667.2	1647.3	1640.0
12.5°	2433.8	2351.1	2191.9	2053.7	1925.9	1768.8	1586.6	1429.5	1327.9	1294.4	1274.5
15°	2540.6	2438.0	2249.5	2081.9	1861.0	1574.0	1265.1	1059.8	965.6	946.7	925.8
17.5°	2643.3	2530.2	2318.6	2087.2	1718.5	1257.8	926.8	787.5	750.9	763.4	766.6
20°	2733.3	2621.3	2386.7	2041.1	1459.9	943.6	717.4	682.8	696.4	720.5	724.7
22.5°	2824.4	2709.2	2449.5	1919.6	1128.9	716.3	646.2	654.5	668.1	692.2	696.4
25°	2935.5	2816.1	2508.2	1696.6	847.2	609.5	613.7	626.3	639.9	661.9	664.0
27.5°	3063.2	2951.2	2546.9	1406.5	628.4	560.3	573.9	592.7	606.4	627.3	631.5
30°	3232.9	3129.2	2559.5	1105.9	526.8	516.3	522.6	545.6	565.5	584.4	587.5
32.5°	3392.1	3305.1	2517.6	834.7	488.0	475.5	475.5	489.1	512.1	529.9	534.1
35°	3538.7	3482.1	2383.6	610.5	458.7	437.8	427.3	427.3	441.9	456.6	460.8
37.5°	3732.4	3730.3	2166.8	487.0	430.4	406.3	384.3	367.6	362.4	365.5	367.6
40°	4064.4	4067.5	1884.0	436.7	406.3	373.9	340.4	310.0	281.7	272.3	271.2
42.5°	4582.8	4535.7	1587.6	412.6	385.4	340.4	290.1	249.2	205.3	191.6	190.6
45°	5405.9	5126.3	1273.5	390.6	363.4	302.7	239.8	184.3	148.7	138.2	138.2
47.5°	6605.0	5902.3	986.5	366.5	334.1	259.7	181.2	133.0	108.9	103.7	104.7
50°	7845.0	6662.6	756.1	336.2	298.5	214.7	134.0	96.3	82.7	82.7	83.8
52.5°	8944.6	7219.8	589.6	303.7	254.5	168.6	101.6	75.4	69.1	68.1	69.1
55°	9974.1	7579.0	451.4	266.0	202.1	125.7	77.5	61.8	57.6	55.5	54.5
57.5°	10966.9	7757.0	338.3	214.7	146.6	91.1	61.8	52.4	48.2	45.0	44.0
60°	11627.7	7612.5	232.5	158.1	101.6	66.0	51.3	45.0	39.8	36.7	35.6
62.5°	12000.5	7217.7	149.8	114.2	72.3	49.2	40.8	37.7	30.4	27.2	27.2
65°	11849.7	6566.3	104.7	81.7	52.4	36.7	30.4	30.4	22.0	17.8	16.8
67.5°	10500.8	5547.3	79.6	60.7	37.7	27.2	23.0	26.2	13.6	8.4	8.4
69°	9034.7	4597.4	68.1	50.3	31.4	22.0	19.9	24.1	9.4	6.3	5.2
70°	7852.3	3966.0	61.8	44.0	26.2	18.9	17.8	23.0	9.4	5.2	4.2
72.5°	4698.0	2211.8	47.1	31.4	16.8	14.7	14.7	26.2	9.4	5.2	4.2
75°	1898.7	779.2	34.6	22.0	12.6	12.6	17.8	33.5	8.4	4.2	3.1
77.5°	430.4	170.7	19.9	13.6	8.4	12.6	20.9	26.2	5.2	2.1	0.0
80°	104.7	41.9	12.6	8.4	5.2	9.4	15.7	14.7	1.0	0.0	0.0
82.5°	34.6	14.7	5.2	4.2	1.0	3.1	7.3	4.2	0.0	0.0	0.0
85°	14.7	8.4	2.1	1.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0
87.5°	9.4	3.1	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
 Rf: 81.5
 Rg: 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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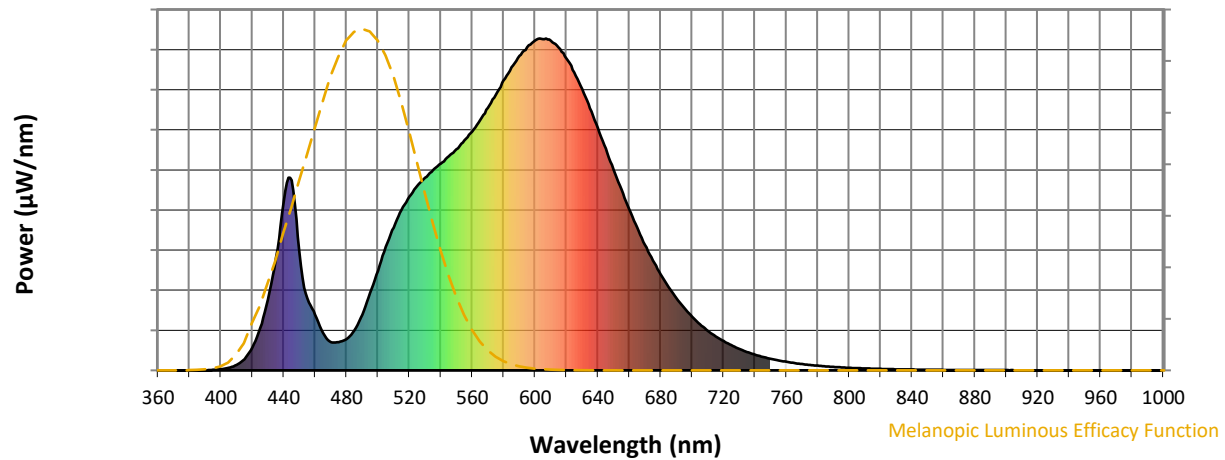
Scotopic Flux vs. Wavelength


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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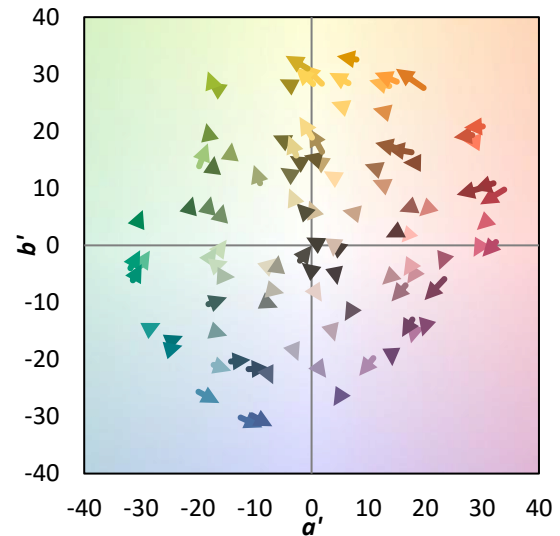
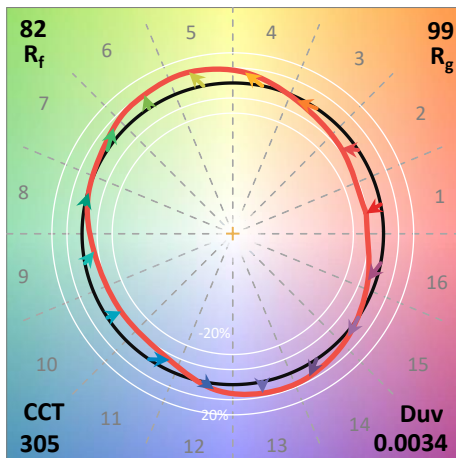
TM-30-18

Summary

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



Color Vector Graphics

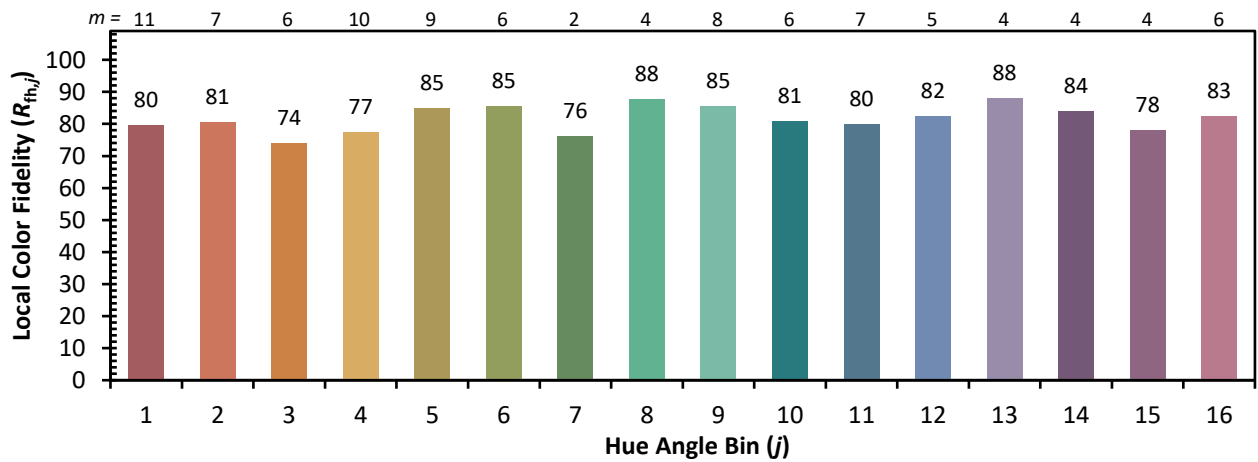
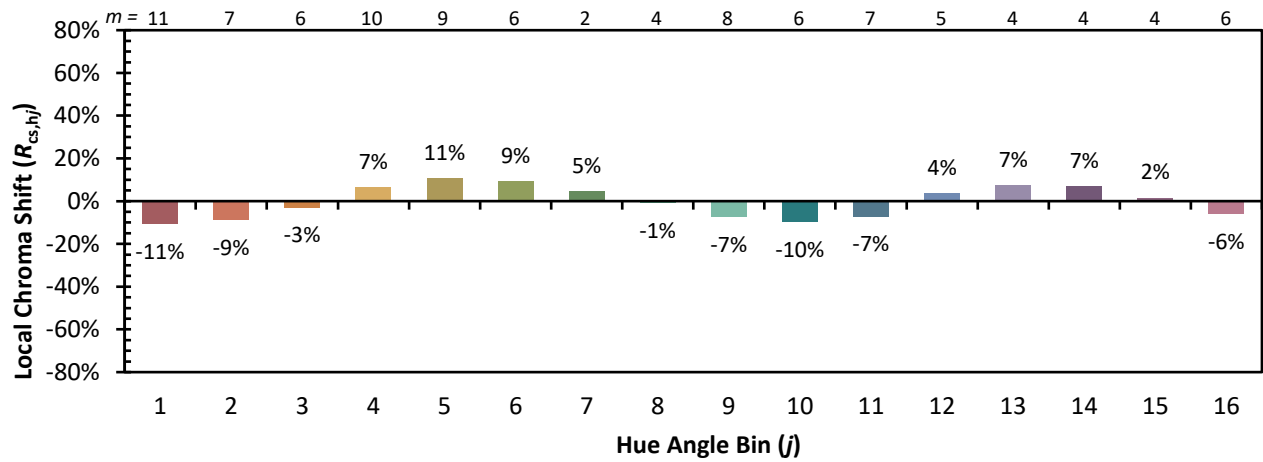


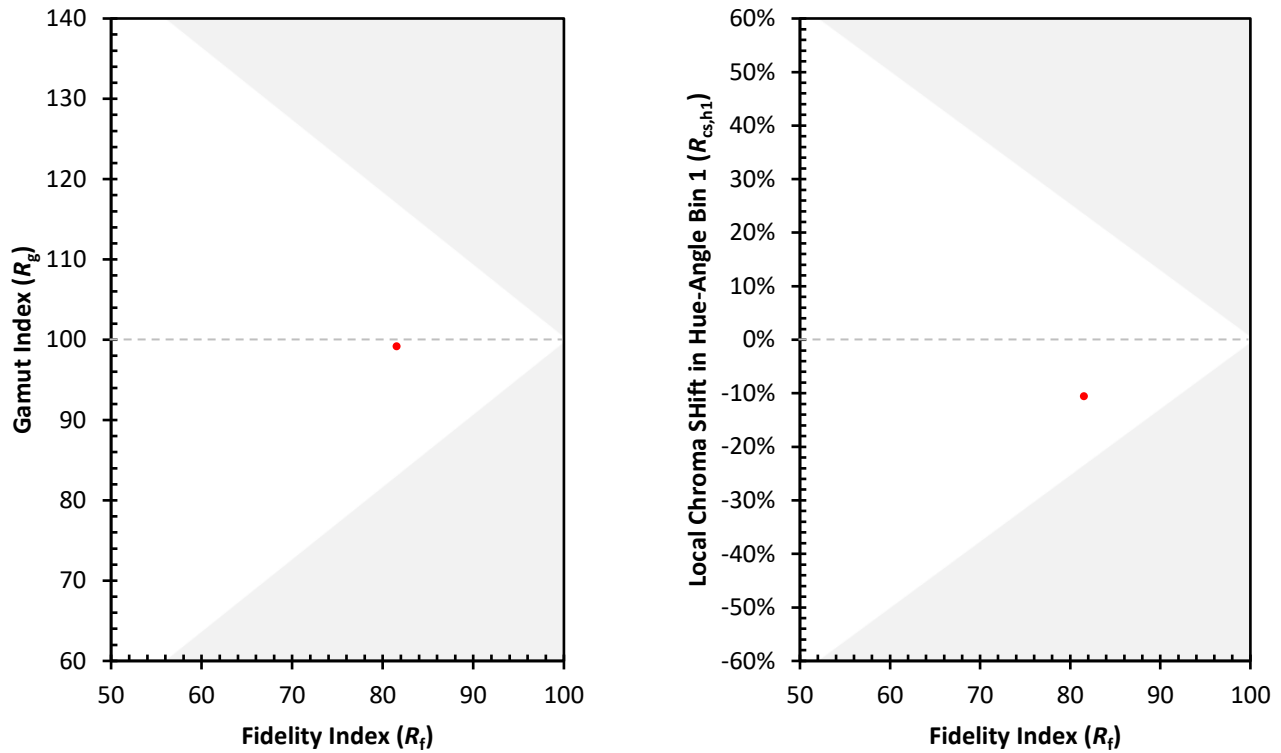
Individual Sample Fidelity Index ($R_{f,i}$)

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)