

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: P322088

Luminaire Tested: **GLEON-SA4C-830-U-T2-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P322088
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-13)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: GLEON-SA4C-830-U-T2-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 80 CRI, 3000K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16129 lumens
Efficiency: N/A
Efficacy: 71.7 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B1 - U0 - G3

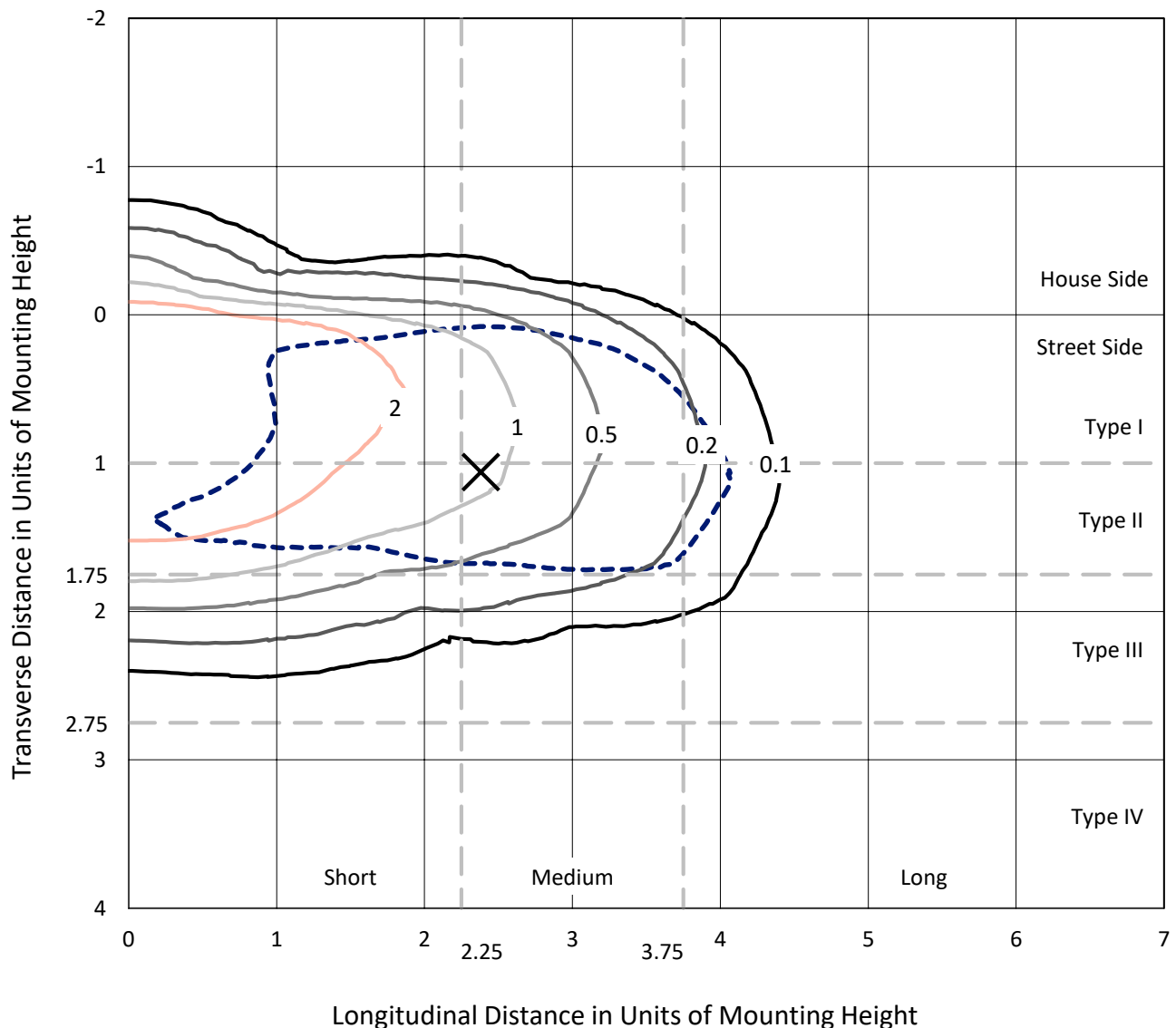
Input Watts (W): 225
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

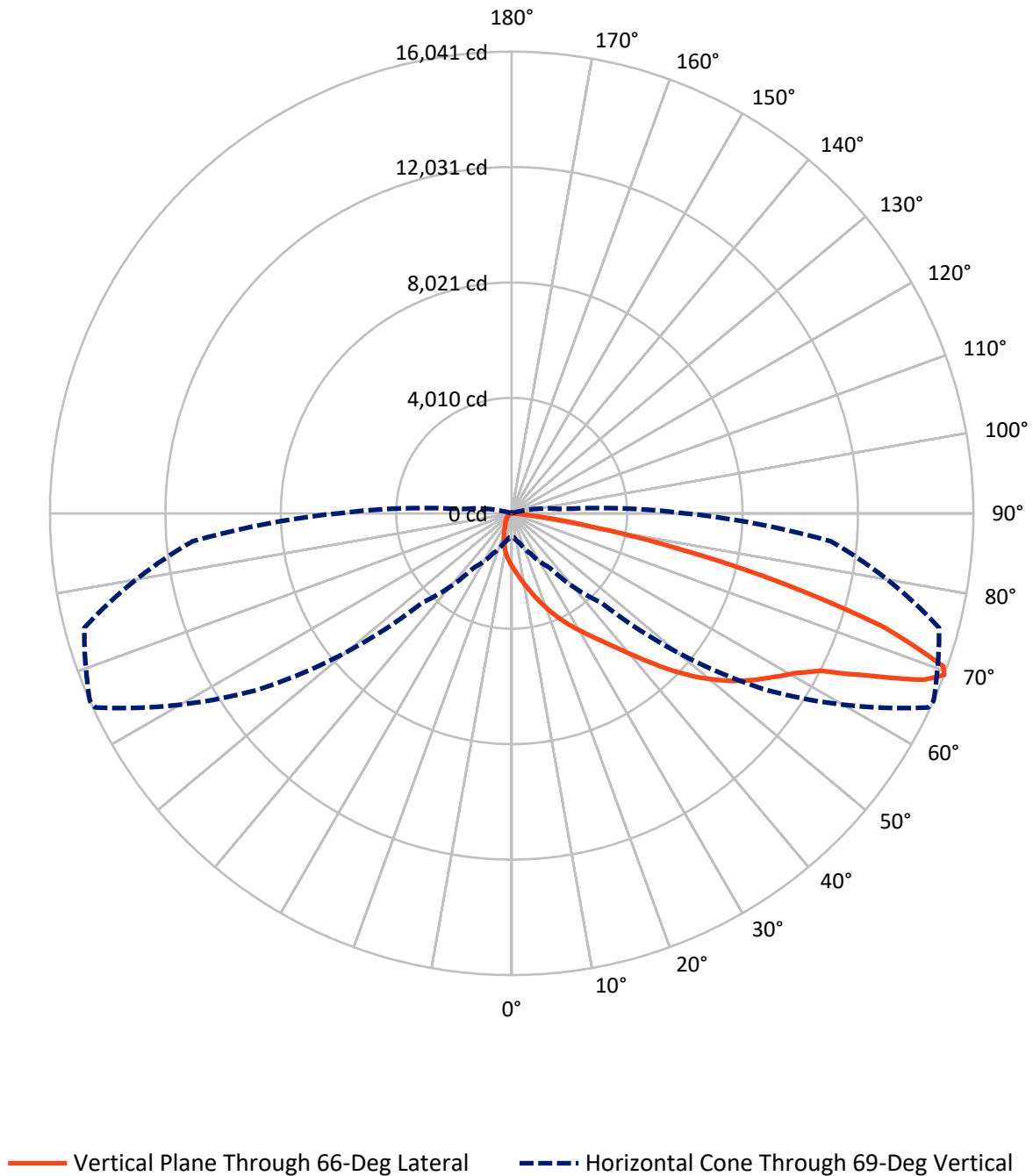
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.9 fc
 Type II - Medium - N/A

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Luminous Intensity Polar Plot



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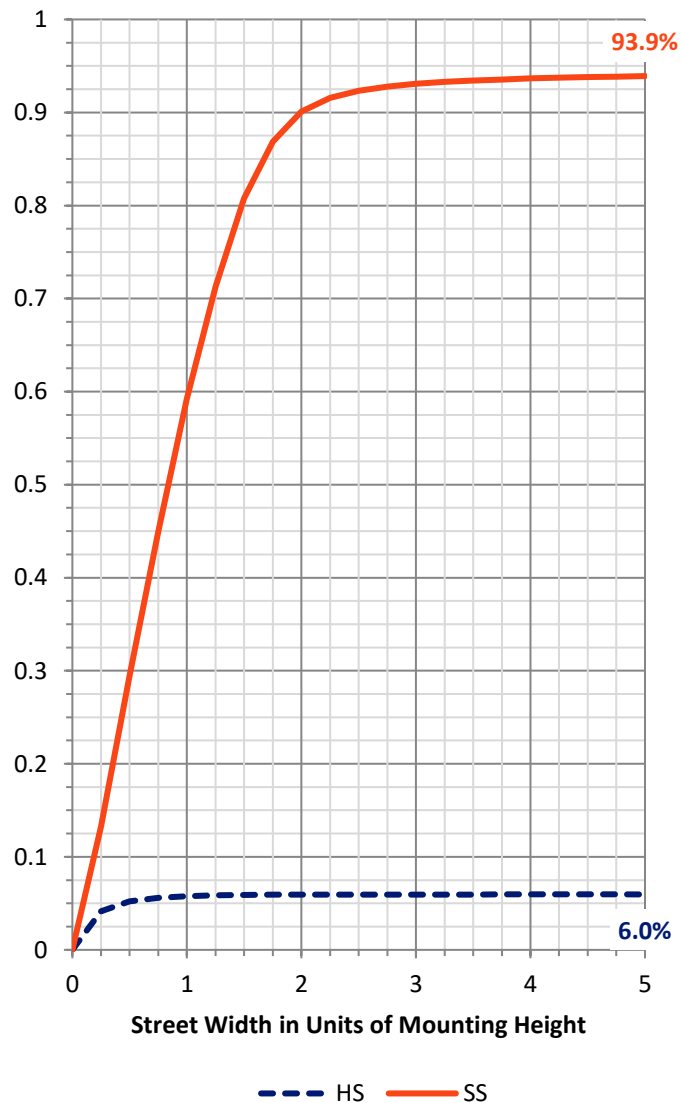
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	967.5	0.0	967.5
	% Fixture	6.0	0.0	6.0
Street Side	Lumens	15161.5	0.0	15161.5
	% Fixture	94.0	0.0	94.0
Total	Lumens	16129.0	0.0	16129.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	177.4	1.1
10°-20°	528.1	3.3
20°-30°	919.5	5.7
30°-40°	1613.3	10.0
40°-50°	2700.5	16.7
50°-60°	3969.5	24.6
60°-70°	4075.6	25.3
70°-80°	2012.0	12.5
80°-90°	133.0	0.8
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°	16129.0	100.0
0°-180°	16129.0	100.0

Coefficient of Utilization



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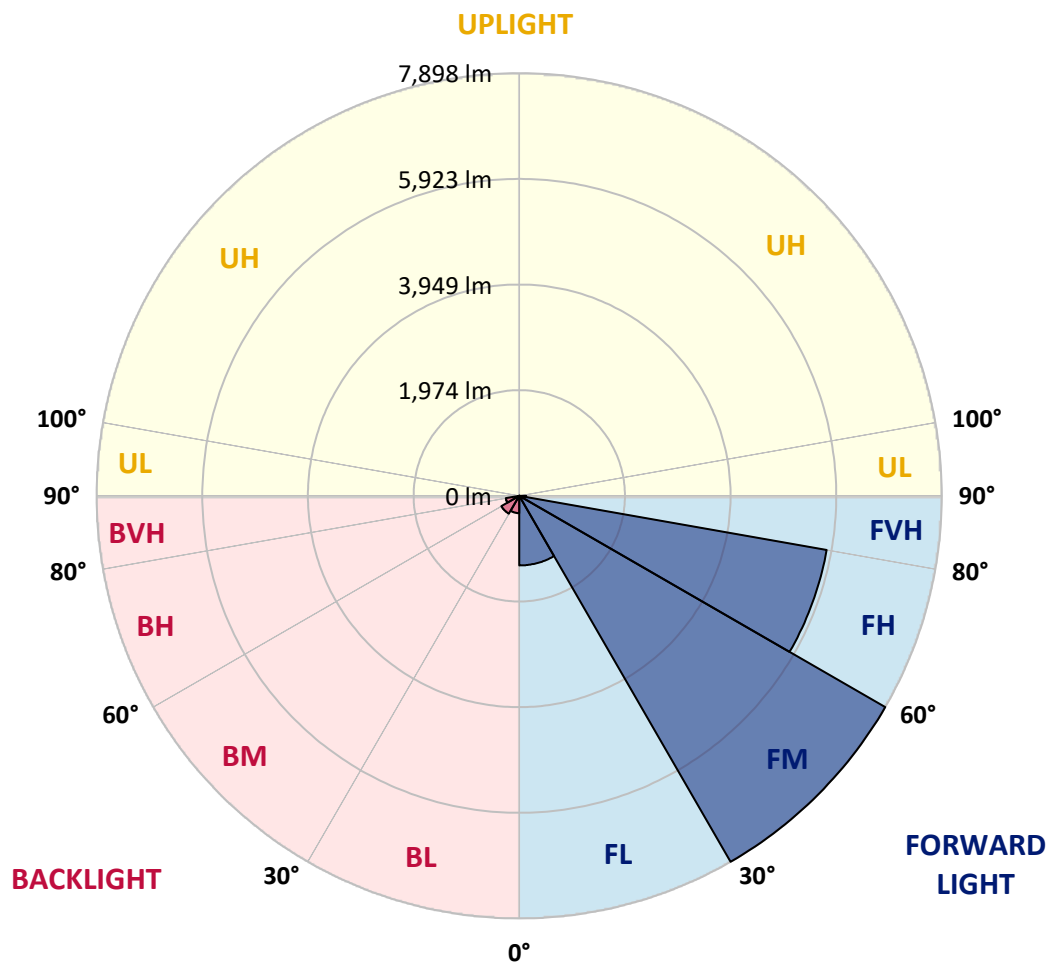
CATALOG NUMBER: GLEON-SA4C-830-U-T2-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1301.5	8.1			
FM	(30°-60°)	7897.5	49.0			
FH	(60°-80°)	5832.7	36.2			G3/7500
FVH	(80°-90°)	129.8	0.8			G2/225
BL	(0°-30°)	323.6	2.0	B1/500		
BM	(30°-60°)	385.7	2.4	B1/1000		
BH	(60°-80°)	255.0	1.6	B1/500		G1/500
BVH	(80°-90°)	3.2	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G3

Type II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	75°	85°
0°	1835.5	1835.5	1835.5	1835.5	1835.5	1835.5	1835.5	1835.5	1835.5	1835.5	1835.5
2.5°	2160.4	2151.2	2147.3	2130.5	2101.4	2079.1	2036.2	1986.5	1977.3	1929.0	1870.0
5°	2440.7	2433.1	2427.7	2404.0	2374.1	2318.2	2240.0	2147.3	2129.7	2037.8	1919.8
7.5°	2636.1	2649.9	2649.9	2634.6	2597.0	2554.9	2459.1	2332.7	2310.5	2169.5	1986.5
10°	2750.2	2767.1	2780.1	2793.1	2787.8	2770.9	2680.5	2538.0	2511.2	2324.3	2063.8
12.5°	2761.0	2777.8	2814.6	2869.0	2921.8	2960.1	2903.5	2765.6	2734.9	2503.6	2155.8
15°	2701.2	2718.8	2775.5	2881.2	3009.2	3121.0	3139.4	3017.6	2986.2	2717.3	2270.7
17.5°	2597.0	2608.5	2689.7	2836.0	3036.7	3242.1	3353.1	3288.0	3258.9	2961.7	2398.6
20°	2519.6	2528.1	2599.3	2756.4	3019.9	3317.9	3555.4	3575.3	3544.7	3223.7	2537.3
22.5°	2652.2	2667.5	2669.8	2744.1	2973.9	3355.4	3733.1	3858.0	3835.0	3501.8	2673.6
25°	3014.5	3032.2	2973.9	2928.0	3013.0	3372.3	3885.6	4147.6	4129.2	3801.3	2810.8
27.5°	3493.3	3511.7	3436.6	3299.5	3217.5	3435.9	4021.2	4441.7	4441.0	4118.5	2958.6
30°	3963.7	3982.1	3905.5	3768.4	3579.9	3615.9	4138.4	4749.7	4754.3	4445.6	3115.7
32.5°	4457.1	4480.0	4401.1	4224.9	4028.1	3926.9	4303.1	5059.2	5085.3	4824.8	3292.6
35°	5017.8	5020.9	4909.8	4725.2	4498.4	4342.9	4567.4	5406.2	5468.3	5294.4	3517.1
37.5°	5567.9	5590.1	5498.9	5207.8	4999.4	4823.3	4960.4	5839.8	5927.9	5868.2	3810.5
40°	5975.4	6022.2	6009.1	5695.1	5497.4	5371.8	5448.4	6355.4	6467.3	6536.2	4180.5
42.5°	6231.3	6266.5	6326.3	6137.1	5957.8	5978.5	6024.5	6956.0	7093.9	7297.7	4605.7
45°	6524.7	6541.6	6591.4	6507.9	6386.8	6595.2	6635.8	7632.5	7777.3	8116.6	5077.6
47.5°	6883.2	6923.1	6936.9	6860.3	6805.1	7140.6	7224.9	8247.6	8450.6	8993.8	5577.1
50°	7339.8	7350.6	7374.3	7324.5	7269.4	7609.5	7753.5	8893.4	9078.1	9874.0	6069.7
52.5°	7786.5	7824.8	7907.5	7876.1	7853.9	8008.6	8224.7	9475.7	9681.7	10607.9	6561.5
55°	7915.2	7948.1	8233.8	8429.2	8610.0	8500.4	8675.1	9997.4	10220.3	11263.7	7034.9
57.5°	7401.1	7467.8	7962.7	8471.3	9221.3	9265.0	9294.1	10532.9	10732.8	11766.3	7527.5
60°	6101.8	6114.9	6926.9	7799.5	9120.2	9932.3	10198.1	11108.2	11276.0	12234.3	8117.4
62.5°	3881.0	4013.5	4904.5	6136.3	8050.8	9835.7	11291.3	11978.5	12039.7	12795.9	8963.2
65°	1848.6	1934.4	2576.3	3791.3	5831.4	8600.0	12045.9	13552.8	13580.3	13909.0	10093.1
67.5°	1023.5	1064.9	1370.5	2040.8	3409.1	6081.9	11741.0	15417.4	15443.4	15045.8	11084.4
69°	800.6	835.8	1076.3	1538.3	2311.3	4371.3	10624.8	15963.6	16041.0	15371.4	11119.7
70°	679.5	714.0	927.0	1299.3	1858.5	3377.7	9457.3	15828.0	15910.0	15340.8	10856.9
72.5°	416.0	435.9	617.5	914.7	1245.6	1699.2	5832.2	13385.7	13524.4	14072.2	9330.9
75°	280.4	291.1	386.1	631.3	891.0	874.9	3029.9	9435.1	9735.4	10946.5	6891.7
77.5°	200.7	210.7	258.9	408.3	624.4	577.6	1372.1	5863.6	5927.9	6565.3	3758.4
80°	114.1	123.3	183.1	242.8	423.6	385.3	545.5	2800.8	2833.0	2815.4	1254.8
82.5°	59.8	67.4	100.4	160.1	272.0	252.0	226.8	937.7	942.3	783.7	275.0
85°	11.5	13.8	49.8	109.5	140.2	109.5	92.7	219.9	224.5	198.4	68.2
87.5°	0.0	0.8	19.9	24.5	27.6	28.3	29.9	42.9	46.0	62.1	18.4
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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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1835.5	1835.5	1835.5	1835.5	1835.5	1835.5	1835.5	1835.5	1835.5	1835.5	1835.5
2.5°	1844.0	1816.4	1763.5	1702.2	1654.7	1608.0	1571.2	1532.9	1519.1	1512.2	1511.5
5°	1862.3	1804.1	1692.3	1577.4	1483.1	1394.3	1330.7	1270.2	1241.8	1228.8	1223.4
7.5°	1893.0	1799.5	1619.5	1444.1	1308.5	1197.4	1109.3	1043.4	1010.5	996.7	991.3
10°	1929.0	1793.4	1534.5	1303.1	1130.0	1015.1	927.7	862.6	826.6	811.3	803.6
12.5°	1971.1	1782.7	1436.4	1160.6	977.5	862.6	756.9	676.5	635.1	617.5	609.0
15°	2023.2	1771.9	1333.7	1026.5	843.5	703.3	587.6	533.2	524.8	521.7	522.5
17.5°	2074.5	1755.1	1221.9	894.0	702.5	549.3	490.3	487.2	488.8	488.8	488.8
20°	2120.5	1716.8	1100.1	780.6	568.4	463.5	451.2	445.9	442.0	439.0	435.1
22.5°	2156.5	1665.5	982.9	668.0	464.2	424.4	405.3	388.4	374.6	365.4	360.8
25°	2181.0	1597.3	875.6	560.0	417.5	386.1	351.6	323.3	301.8	288.8	283.5
27.5°	2199.4	1523.7	779.9	468.8	385.3	341.7	296.5	262.8	240.5	229.1	224.5
30°	2212.4	1440.2	695.6	412.2	349.3	294.9	246.7	213.7	197.6	191.5	188.5
32.5°	2224.7	1347.5	615.9	385.3	315.6	252.0	206.8	181.6	171.6	163.9	161.6
35°	2255.3	1261.7	540.1	357.0	281.2	215.3	177.7	159.3	149.4	144.8	143.3
37.5°	2328.1	1198.2	467.3	327.9	246.7	186.2	155.5	142.5	133.3	128.7	127.2
40°	2445.3	1166.0	406.0	296.5	213.0	163.9	141.0	128.7	118.7	111.8	110.3
42.5°	2617.7	1170.6	363.1	265.1	186.2	146.3	127.2	112.6	101.9	95.8	94.2
45°	2826.8	1204.3	333.2	234.4	163.9	132.5	111.8	96.5	86.6	81.2	79.7
47.5°	3053.6	1258.7	308.7	206.8	146.3	119.5	96.5	80.4	72.0	67.4	66.6
50°	3292.6	1311.5	283.5	180.0	131.0	106.5	81.2	66.6	59.8	55.9	54.4
52.5°	3534.7	1372.8	260.5	155.5	118.0	91.2	67.4	54.4	49.0	46.0	44.4
55°	3795.2	1418.8	238.3	136.4	105.0	77.4	55.9	45.2	40.6	36.8	36.0
57.5°	4101.6	1490.0	215.3	118.0	89.6	64.4	46.0	36.0	32.2	28.3	27.6
60°	4515.3	1573.5	190.8	104.2	73.5	52.9	37.5	29.1	24.5	21.5	20.7
62.5°	5060.7	1666.2	160.1	91.2	59.8	42.9	29.9	23.0	17.6	13.8	13.8
65°	5752.5	1817.1	131.0	76.6	49.0	35.2	23.0	16.9	10.0	6.1	6.1
67.5°	6156.2	1843.2	105.7	62.8	39.8	29.9	19.2	11.5	3.1	0.8	0.0
69°	6026.8	1692.3	89.6	53.6	34.5	28.3	17.6	8.4	1.5	0.0	0.0
70°	5783.2	1547.5	78.9	47.5	31.4	26.8	16.9	6.1	1.5	0.0	0.0
72.5°	4778.8	1101.6	59.8	35.2	23.0	23.7	15.3	3.8	1.5	0.0	0.0
75°	3481.1	669.6	42.9	24.5	14.6	17.6	10.7	1.5	0.8	0.0	0.0
77.5°	1936.7	315.6	26.8	13.8	9.2	10.7	5.4	0.0	0.0	0.0	0.0
80°	629.0	85.8	12.3	7.7	5.4	6.1	2.3	0.0	0.0	0.0	0.0
82.5°	116.4	24.5	6.9	3.8	1.5	1.5	0.0	0.0	0.0	0.0	0.0
85°	25.3	10.0	3.8	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	8.4	3.1	0.8	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

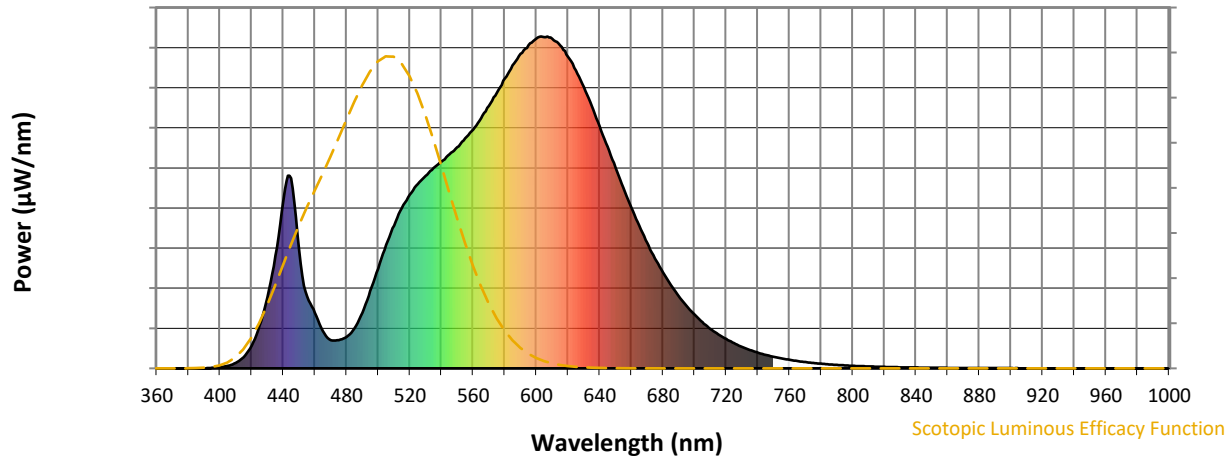


Photopic Lumens: NR

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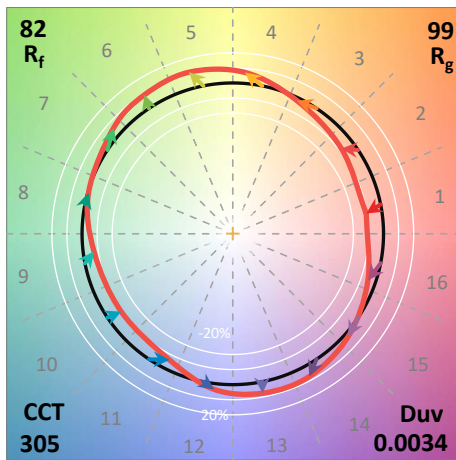
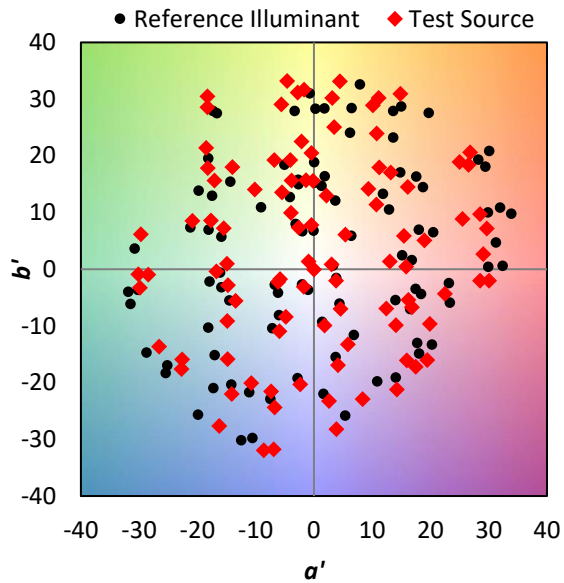
TM-30-18

Summary

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



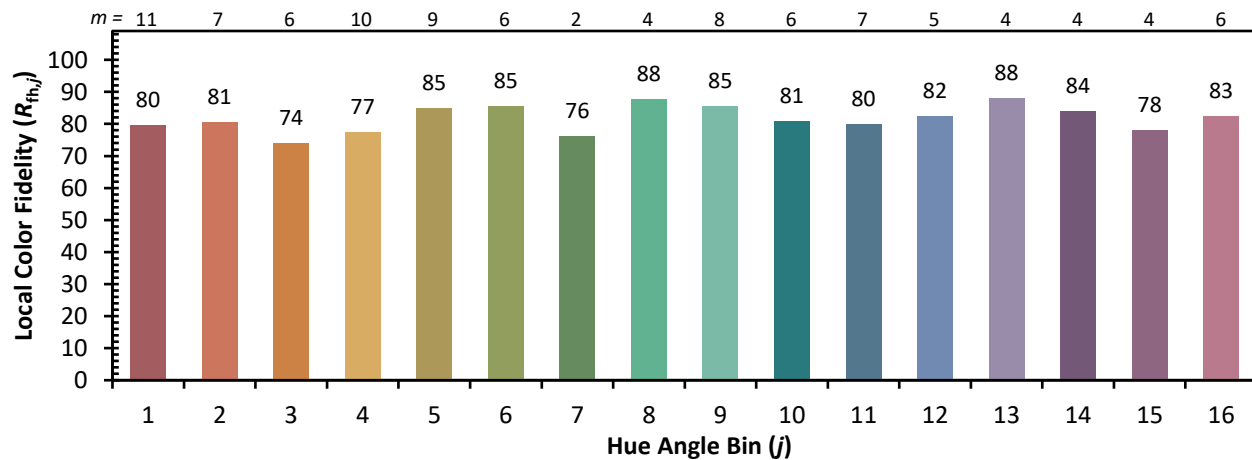
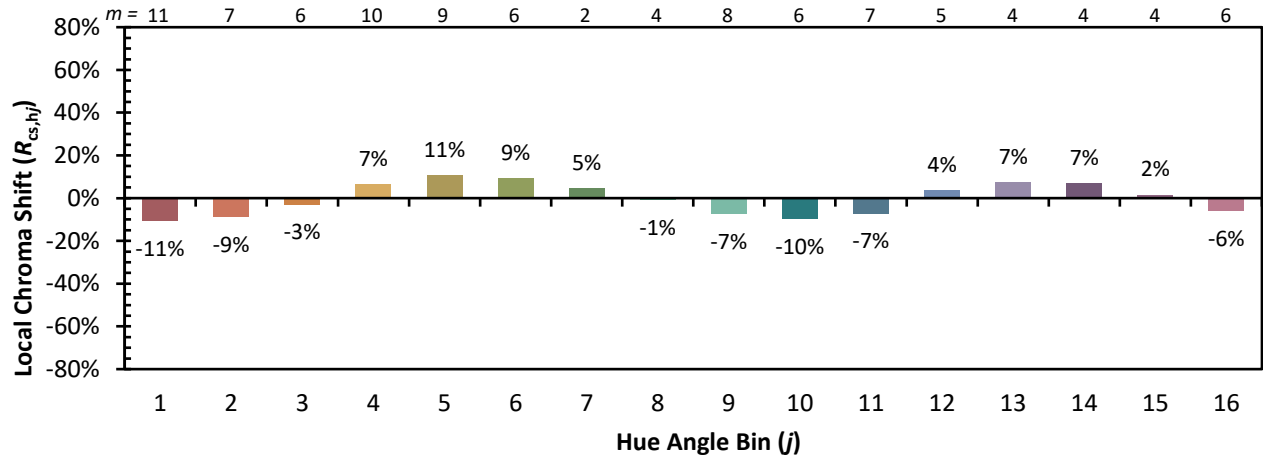
Color Vector Graphics

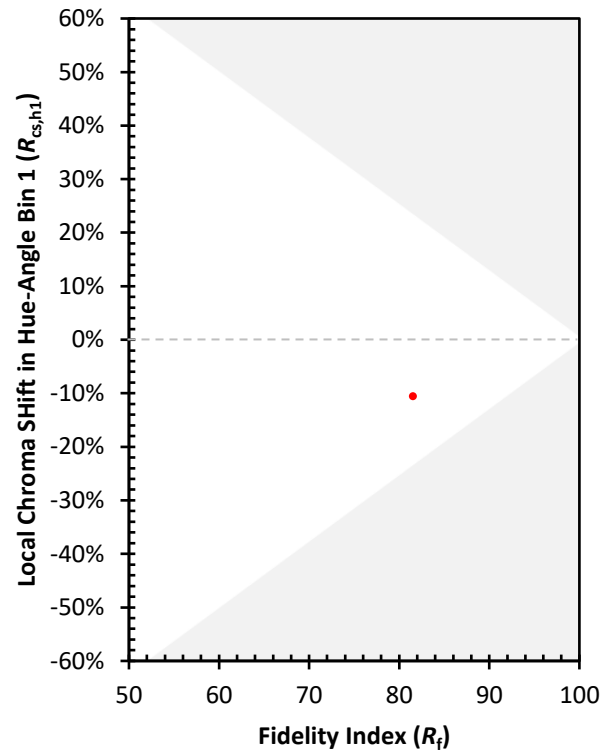
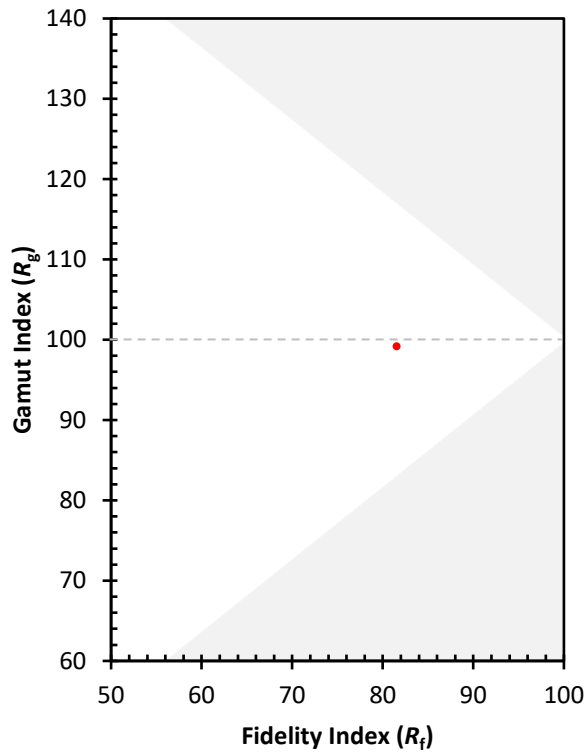


Individual Sample Fidelity Index ($R_{f,i}$)

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)