

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: P323038

Luminaire Tested: **GLEON-SA4B-830-U-T4W-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P323038
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-SA4B-830-U-T4W-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 80 CRI, 3000K, 800mA 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: 13278 lumens
Efficiency: N/A
Efficacy: 77.6 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G3

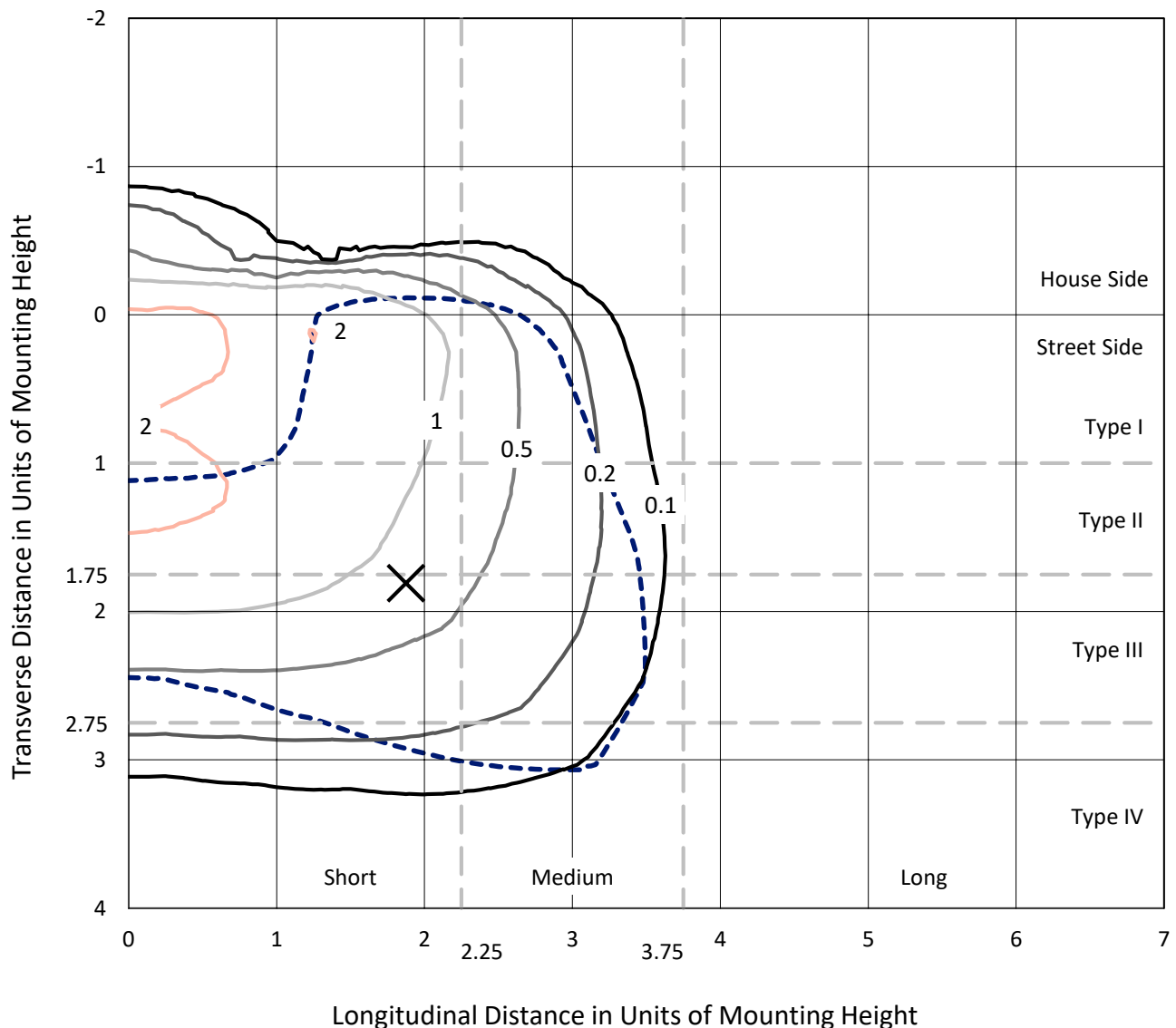
Input Watts (W): 171
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

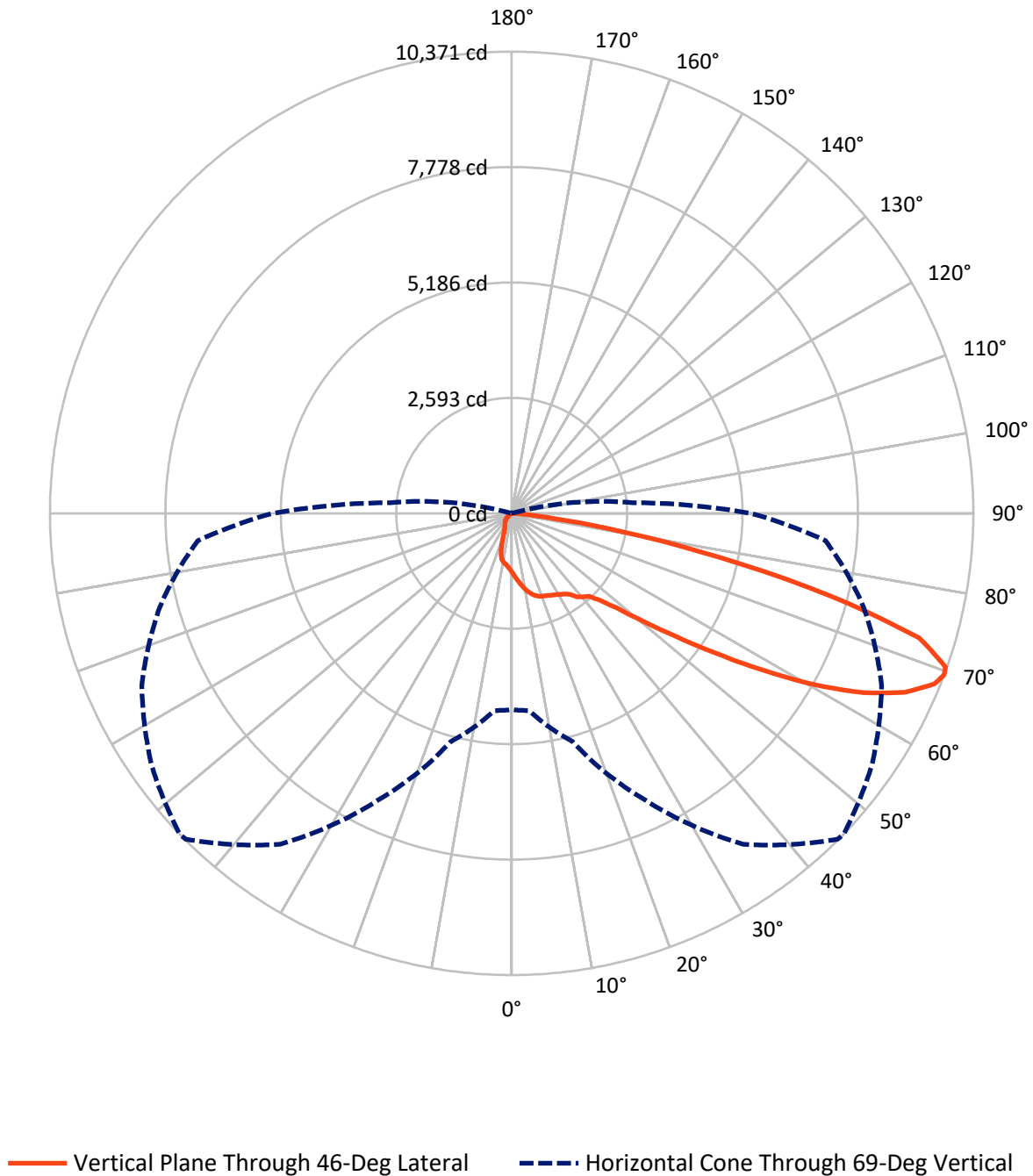
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.1 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



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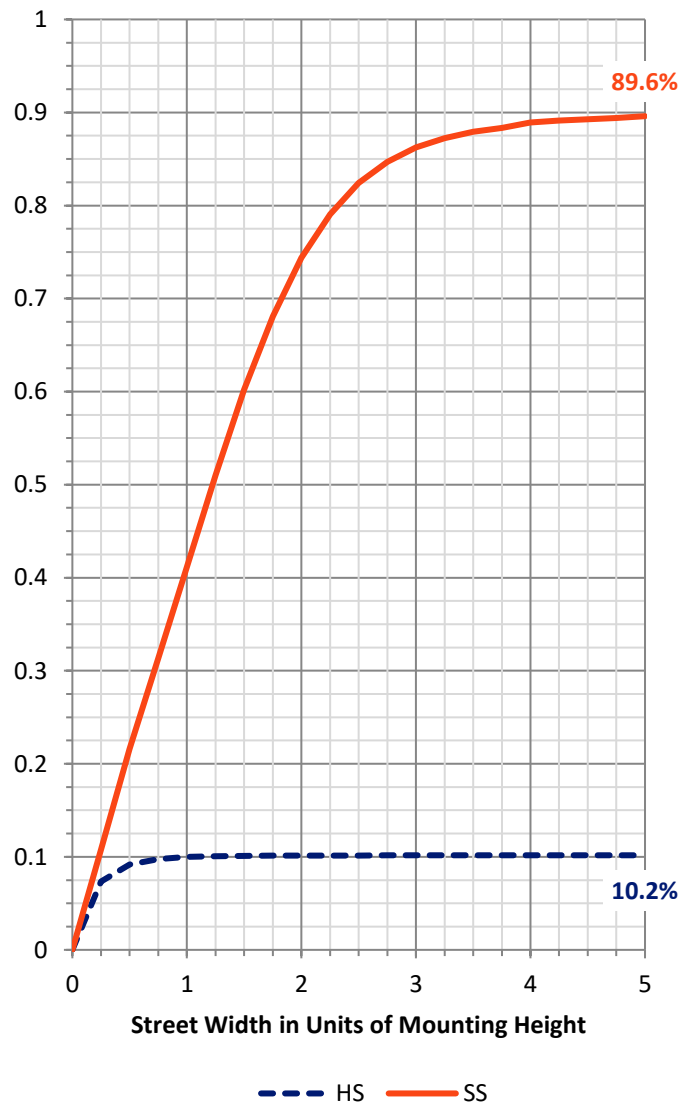
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1362.7	0.0	1362.7
	% Fixture	10.3	0.0	10.3
Street Side	Lumens	11915.3	0.0	11915.3
	% Fixture	89.7	0.0	89.7
Total	Lumens	13278.0	0.0	13278.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	132.4	1.0
10°-20°	401.7	3.0
20°-30°	631.8	4.8
30°-40°	906.0	6.8
40°-50°	1565.9	11.8
50°-60°	3093.6	23.3
60°-70°	4323.6	32.6
70°-80°	2088.8	15.7
80°-90°	134.3	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°	13278.0	100.0
0°-180°	13278.0	100.0

Coefficient of Utilization



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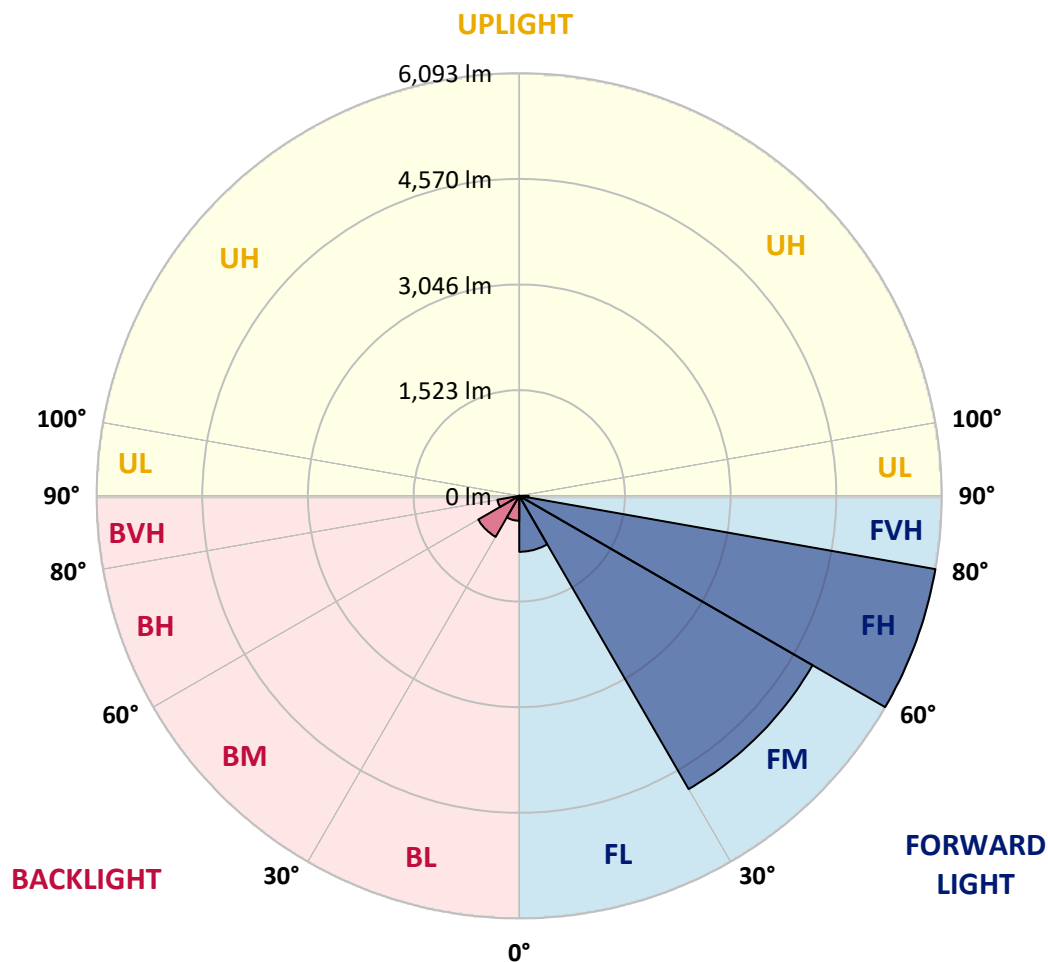
CATALOG NUMBER: GLEON-SA4B-830-U-T4W-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	806.8	6.1			
FM	(30°-60°)	4882.6	36.8			
FH	(60°-80°)	6092.8	45.9			G3/7500
FVH	(80°-90°)	133.1	1.0			G2/225
BL	(0°-30°)	359.2	2.7	B1/500		
BM	(30°-60°)	682.9	5.1	B1/1000		
BH	(60°-80°)	319.5	2.4	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: B1-U0-G3

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	1330.4	1330.4	1330.4	1330.4	1330.4	1330.4	1330.4	1330.4	1330.4	1330.4	1330.4
2.5°	1478.0	1476.1	1467.4	1463.6	1442.5	1430.0	1425.0	1409.5	1387.1	1364.6	1339.7
5°	1646.0	1645.4	1629.2	1613.7	1573.8	1536.5	1529.6	1493.5	1443.1	1395.8	1348.5
7.5°	1817.9	1809.8	1793.6	1763.7	1705.8	1646.0	1640.4	1589.4	1517.8	1449.3	1381.5
10°	1963.5	1958.6	1937.4	1892.0	1824.1	1756.2	1749.4	1686.5	1605.6	1521.5	1435.0
12.5°	2076.9	2073.1	2045.1	1988.4	1916.2	1845.9	1836.5	1780.5	1694.0	1600.0	1497.9
15°	2146.0	2144.1	2109.8	2049.5	1978.5	1917.5	1909.4	1860.2	1779.9	1681.5	1566.4
17.5°	2162.1	2162.8	2127.3	2066.3	2007.7	1964.2	1957.9	1920.6	1853.4	1755.6	1634.8
20°	2126.0	2133.5	2101.8	2048.8	2012.7	1989.7	1984.7	1962.3	1905.6	1813.5	1689.6
22.5°	2075.0	2078.7	2056.9	2021.4	2006.5	2010.9	2008.4	1995.9	1948.0	1863.3	1743.8
25°	2043.9	2043.9	2030.8	2000.9	2010.9	2037.6	2038.3	2035.8	1997.8	1924.3	1809.8
27.5°	2042.6	2038.9	2023.9	2001.5	2028.9	2070.0	2072.5	2089.3	2065.6	1998.4	1892.0
30°	2092.4	2088.1	2056.3	2027.0	2061.9	2106.1	2112.3	2149.1	2137.2	2078.7	1983.5
32.5°	2208.8	2193.3	2122.9	2075.0	2101.1	2154.0	2162.1	2220.7	2239.3	2177.7	2071.9
35°	2368.2	2319.0	2217.6	2165.9	2168.4	2223.8	2231.2	2317.2	2372.6	2268.6	2140.4
37.5°	2588.0	2563.7	2398.7	2260.5	2271.7	2355.8	2377.5	2470.9	2455.4	2318.4	2218.2
40°	3069.8	3031.9	2856.3	2525.7	2370.7	2462.8	2469.7	2519.5	2520.7	2431.1	2380.0
42.5°	3726.0	3710.4	3525.5	3007.0	2565.6	2534.4	2546.9	2630.9	2724.9	2668.9	2666.4
45°	4452.5	4444.4	4248.3	3645.7	2959.6	2769.1	2784.7	2897.4	3077.3	3089.8	3168.8
47.5°	5037.1	5033.4	4920.7	4358.5	3562.9	3167.0	3171.9	3291.5	3607.7	3764.0	3890.4
50°	5570.0	5588.1	5499.1	5129.9	4384.7	3790.1	3778.3	3858.0	4366.0	4621.9	4778.8
52.5°	6310.9	6336.4	6086.7	5849.6	5246.9	4563.3	4554.0	4637.4	5277.4	5469.2	5497.2
55°	6965.2	6921.6	6724.2	6655.8	6298.4	5518.4	5515.9	5589.3	6159.0	6240.5	6292.2
57.5°	7254.0	7237.2	7332.5	7489.4	7399.7	6647.0	6641.4	6585.4	6947.7	6956.5	7115.2
60°	7436.5	7457.0	7749.0	8232.7	8456.2	7861.7	7825.6	7483.8	7701.0	7681.7	7851.7
62.5°	7299.5	7340.0	7865.4	8671.6	9246.9	8921.9	8870.8	8306.8	8344.8	8278.2	8436.3
65°	6572.3	6635.2	7496.2	8588.8	9639.1	9750.5	9698.8	9033.3	8855.9	8746.3	8658.5
67.5°	5336.6	5373.9	6272.9	7868.5	9462.3	10244.8	10234.2	9670.2	9241.9	8667.2	7986.2
69°	4410.2	4446.9	5312.3	7110.2	9073.2	10350.6	10371.2	9874.4	9168.4	8186.6	7076.0
70°	3735.3	3774.6	4580.8	6460.3	8621.8	10301.5	10338.2	9855.1	8958.0	7630.1	6277.3
72.5°	1959.2	1992.8	2820.2	4450.7	7028.7	9459.1	9570.6	9022.1	7593.3	5541.4	3711.7
75°	615.7	635.0	1101.3	2326.5	4812.4	7354.9	7380.4	7077.2	5392.0	3048.0	1545.8
77.5°	234.7	229.1	366.7	857.3	2433.0	4631.2	4787.5	4422.7	2829.5	1077.6	356.7
80°	126.4	127.0	190.5	354.9	1040.9	2380.0	2512.0	2143.5	1005.4	336.2	82.2
82.5°	54.8	57.3	107.1	188.0	478.1	877.8	943.8	785.7	384.1	226.0	30.5
85°	11.8	13.1	51.7	102.1	194.9	246.5	258.4	254.6	244.7	175.6	11.8
87.5°	0.0	0.0	23.0	36.7	49.2	56.0	49.2	64.1	135.1	118.3	6.2
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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CATALOG NUMBER: GLEON-SA4B-830-U-T4W-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1330.4	1330.4	1330.4	1330.4	1330.4	1330.4	1330.4	1330.4	1330.4	1330.4	1330.4
2.5°	1331.7	1320.4	1301.1	1280.0	1265.0	1249.5	1237.0	1231.4	1225.2	1220.8	1226.4
5°	1329.2	1307.4	1270.0	1233.9	1207.8	1186.6	1169.2	1162.3	1155.5	1150.5	1149.9
7.5°	1351.0	1320.4	1263.2	1210.3	1169.8	1141.1	1117.5	1107.5	1099.4	1095.7	1092.6
10°	1392.7	1353.4	1276.9	1207.8	1155.5	1106.9	1055.9	1016.6	991.1	979.3	974.9
12.5°	1446.8	1397.6	1303.0	1220.8	1144.9	1051.5	943.2	849.8	789.4	769.5	757.7
15°	1510.3	1449.3	1337.3	1237.6	1106.3	935.7	752.0	630.0	574.0	562.8	550.3
17.5°	1571.3	1504.1	1378.3	1240.8	1021.6	747.7	551.0	468.2	446.4	453.8	455.7
20°	1624.9	1558.3	1418.8	1213.4	867.8	560.9	426.5	405.9	414.0	428.3	430.8
22.5°	1679.0	1610.6	1456.2	1141.1	671.1	425.8	384.1	389.1	397.2	411.5	414.0
25°	1745.0	1674.1	1491.0	1008.5	503.6	362.3	364.8	372.3	380.4	393.5	394.7
27.5°	1821.0	1754.4	1514.1	836.1	373.5	333.1	341.2	352.4	360.5	372.9	375.4
30°	1921.8	1860.2	1521.5	657.4	313.1	306.9	310.7	324.4	336.2	347.4	349.3
32.5°	2016.5	1964.8	1496.6	496.2	290.1	282.6	282.6	290.7	304.4	315.0	317.5
35°	2103.6	2070.0	1416.9	363.0	272.7	260.2	254.0	254.0	262.7	271.4	273.9
37.5°	2218.8	2217.6	1288.1	289.5	255.9	241.6	228.5	218.5	215.4	217.3	218.5
40°	2416.1	2418.0	1120.0	259.6	241.6	222.3	202.3	184.3	167.5	161.9	161.2
42.5°	2724.3	2696.3	943.8	245.3	229.1	202.3	172.4	148.2	122.0	113.9	113.3
45°	3213.6	3047.4	757.0	232.2	216.0	179.9	142.6	109.6	88.4	82.2	82.2
47.5°	3926.5	3508.7	586.4	217.9	198.6	154.4	107.7	79.1	64.7	61.6	62.3
50°	4663.6	3960.7	449.5	199.8	177.4	127.6	79.7	57.3	49.2	49.2	49.8
52.5°	5317.3	4291.9	350.5	180.5	151.3	100.2	60.4	44.8	41.1	40.5	41.1
55°	5929.2	4505.5	268.3	158.1	120.2	74.7	46.1	36.7	34.2	33.0	32.4
57.5°	6519.4	4611.3	201.1	127.6	87.2	54.2	36.7	31.1	28.6	26.8	26.1
60°	6912.3	4525.4	138.2	94.0	60.4	39.2	30.5	26.8	23.7	21.8	21.2
62.5°	7133.9	4290.7	89.0	67.9	43.0	29.3	24.3	22.4	18.1	16.2	16.2
65°	7044.2	3903.4	62.3	48.6	31.1	21.8	18.1	18.1	13.1	10.6	10.0
67.5°	6242.4	3297.7	47.3	36.1	22.4	16.2	13.7	15.6	8.1	5.0	5.0
69°	5370.8	2733.0	40.5	29.9	18.7	13.1	11.8	14.3	5.6	3.7	3.1
70°	4667.9	2357.6	36.7	26.1	15.6	11.2	10.6	13.7	5.6	3.1	2.5
72.5°	2792.8	1314.8	28.0	18.7	10.0	8.7	8.7	15.6	5.6	3.1	2.5
75°	1128.7	463.2	20.5	13.1	7.5	7.5	10.6	19.9	5.0	2.5	1.9
77.5°	255.9	101.5	11.8	8.1	5.0	7.5	12.5	15.6	3.1	1.2	0.0
80°	62.3	24.9	7.5	5.0	3.1	5.6	9.3	8.7	0.6	0.0	0.0
82.5°	20.5	8.7	3.1	2.5	0.6	1.9	4.4	2.5	0.0	0.0	0.0
85°	8.7	5.0	1.2	0.6	0.0	0.0	0.6	0.0	0.0	0.0	0.0
87.5°	5.6	1.9	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

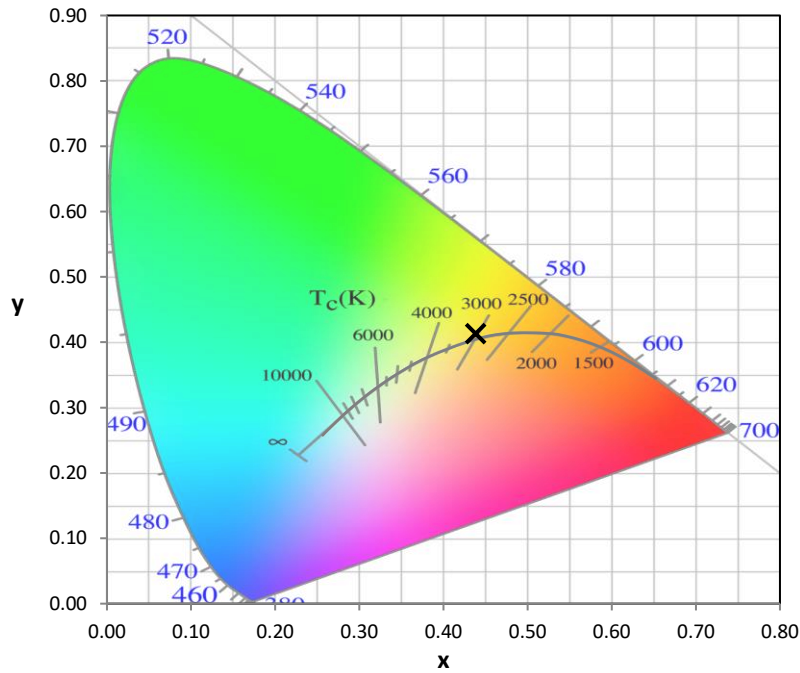
Stabilization Time: 20M
 Operation Time: 1H 20M
 Sphere Temperature (°C): 24.2

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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

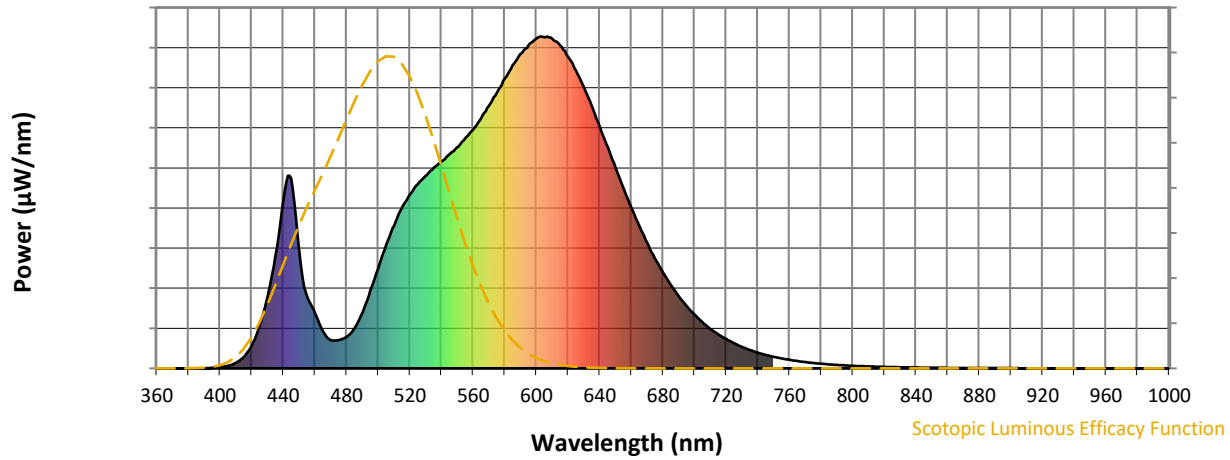


Photopic Lumens: NR

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



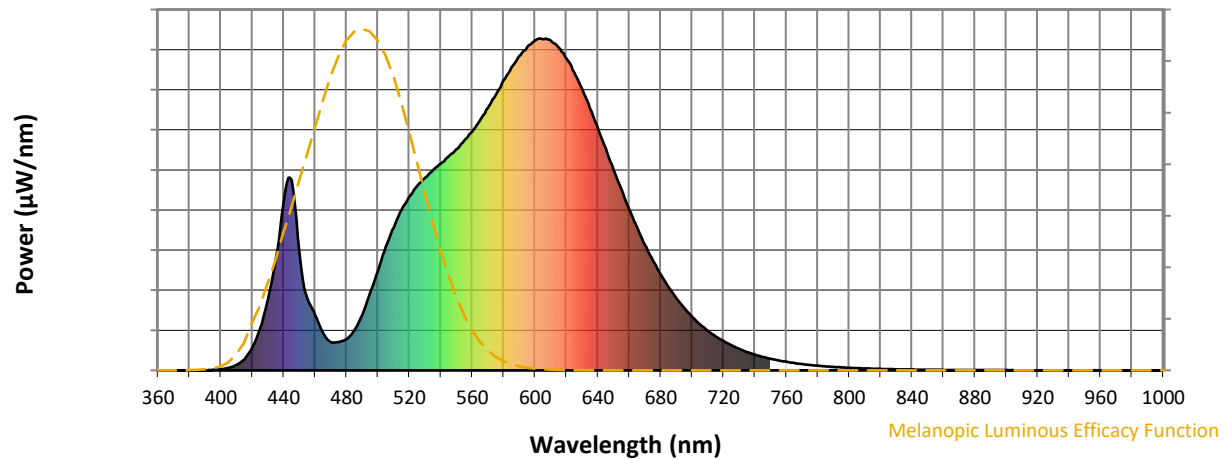
Scotopic Lumens: NR

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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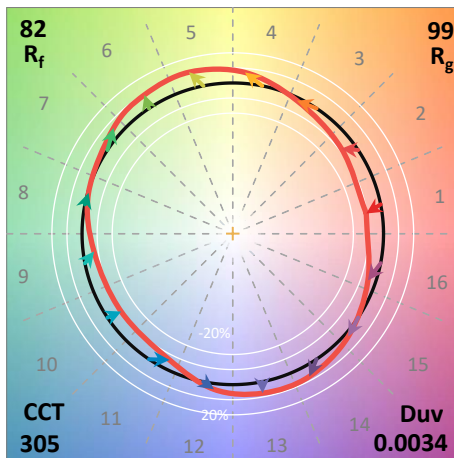
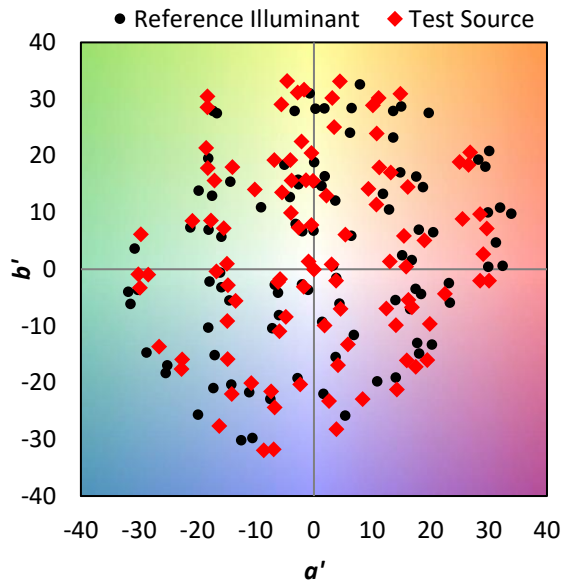
TM-30-18

Summary

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



Color Vector Graphics

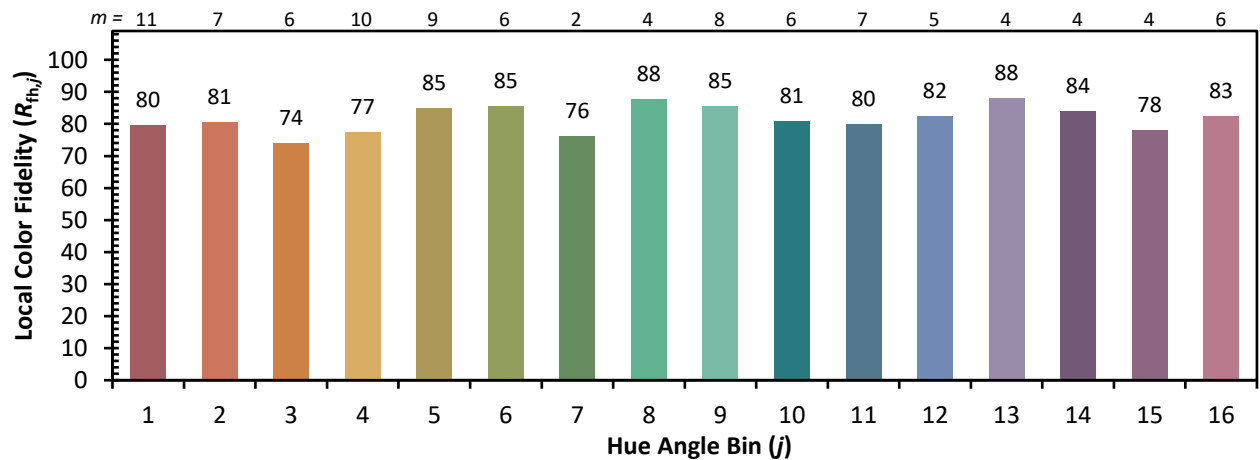
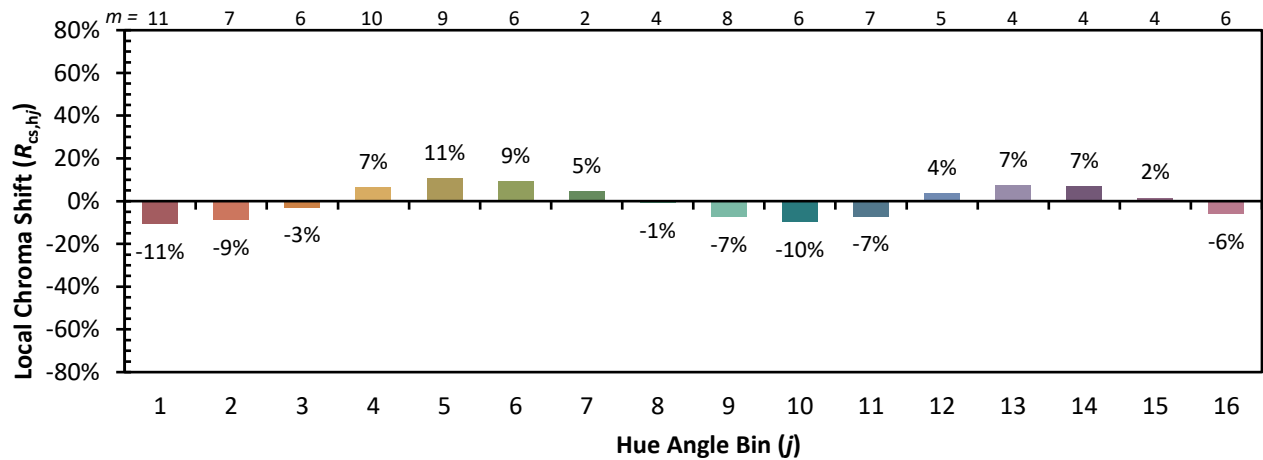


Individual Sample Fidelity Index ($R_{f,i}$)

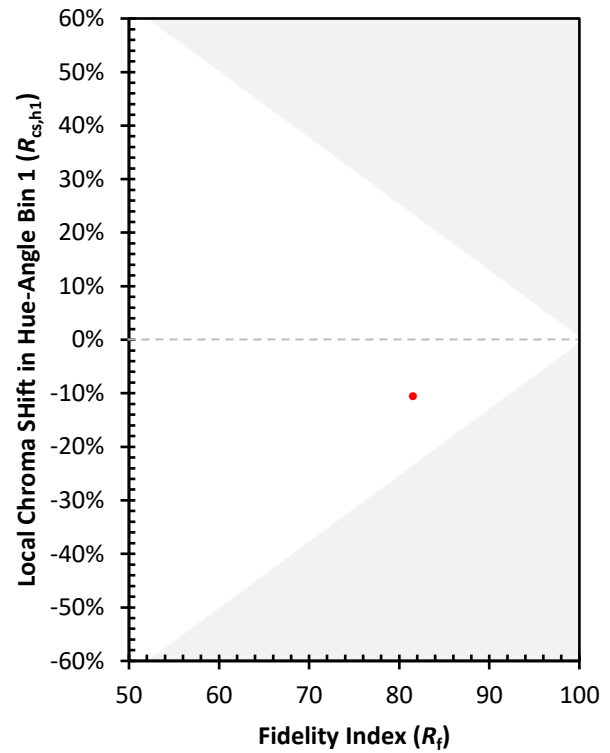
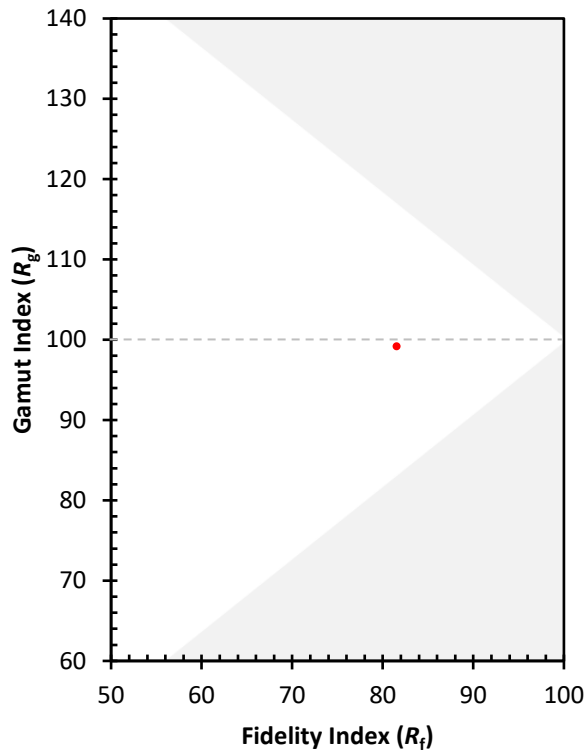
CES01 = 86	CES26 = 74	CES51 = 89	CES76 = 70
CES02 = 63	CES27 = 88	CES52 = 92	CES77 = 86
CES03 = 31	CES28 = 89	CES53 = 81	CES78 = 72
CES04 = 70	CES29 = 67	CES54 = 87	CES79 = 90
CES05 = 50	CES30 = 68	CES55 = 85	CES80 = 88
CES06 = 51	CES31 = 71	CES56 = 78	CES81 = 78
CES07 = 42	CES32 = 70	CES57 = 76	CES82 = 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)