

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: P321122

Luminaire Tested: **GLEON-SA8B-830-U-AFL**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P321122
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-29)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: GLEON-SA8B-830-U-AFL
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(8) 80 CRI, 3000K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND AUTOMOTIVE
FRONTLINE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 37338 lumens
Efficiency: N/A
Efficacy: 111.8 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G3

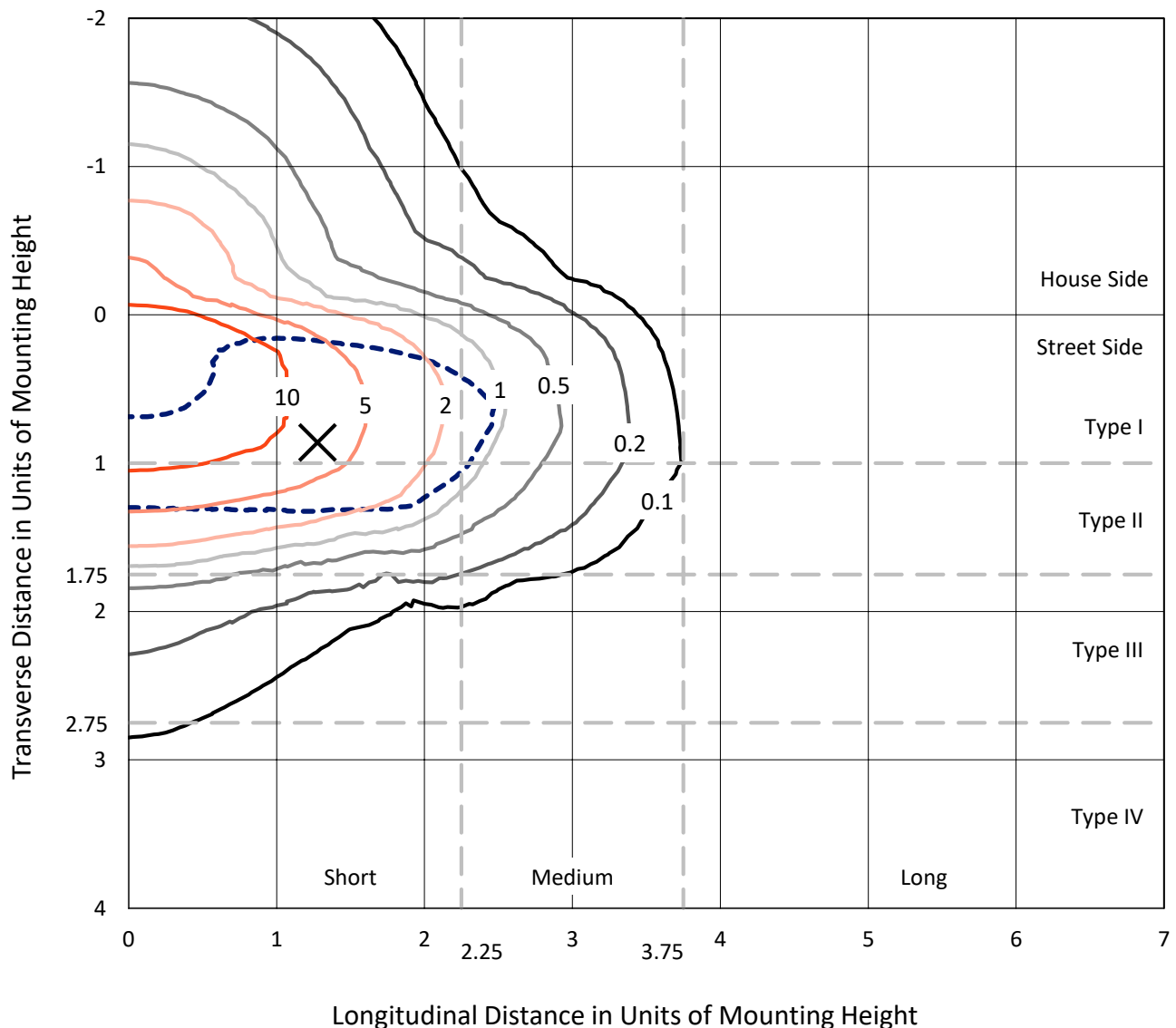
Input Watts (W): 334
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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 CATALOG NUMBER: GLEON-SA8B-830-U-AFL

Iso-Footcandle Lines of Horizontal Illumination

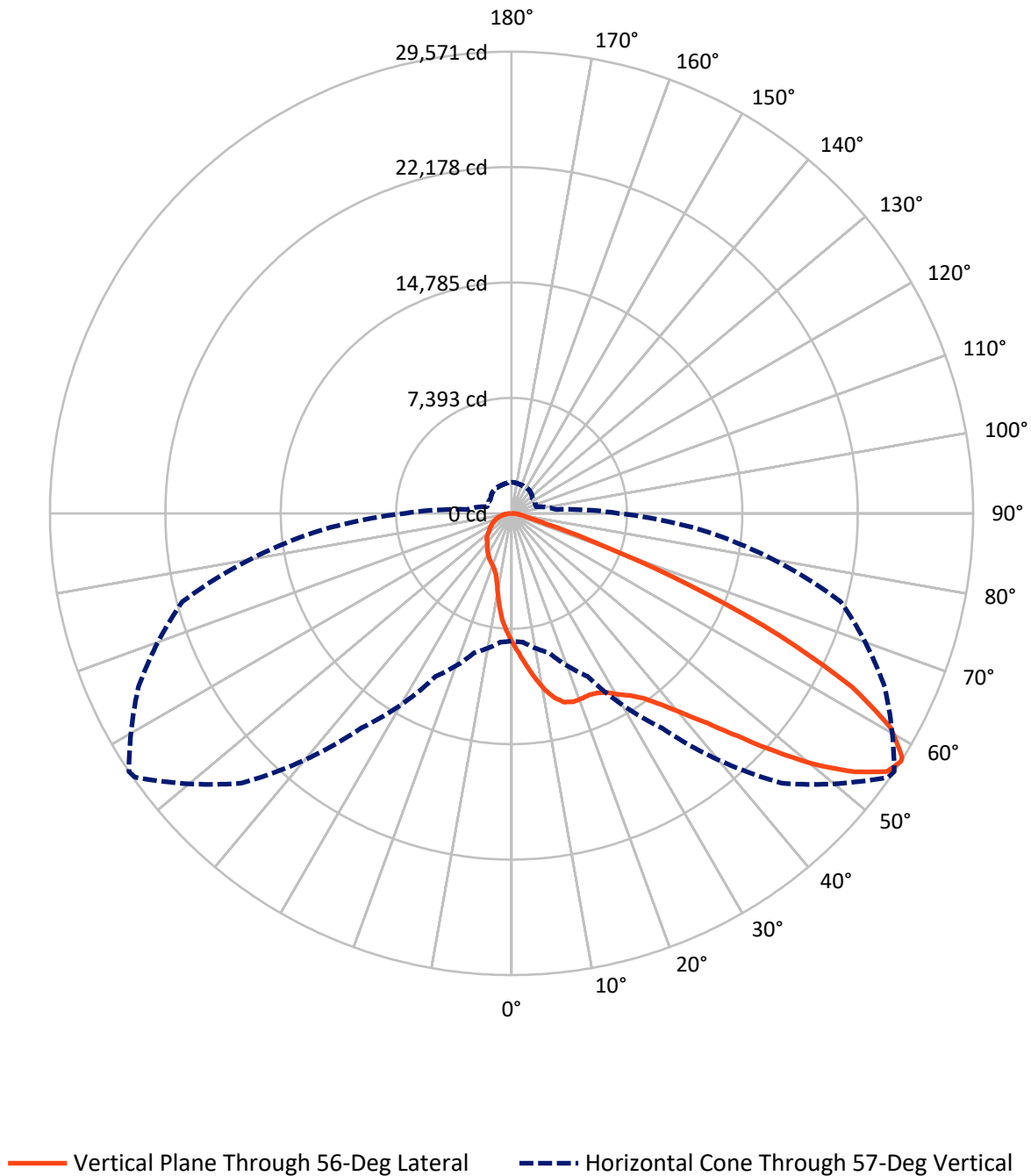
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 18.4 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



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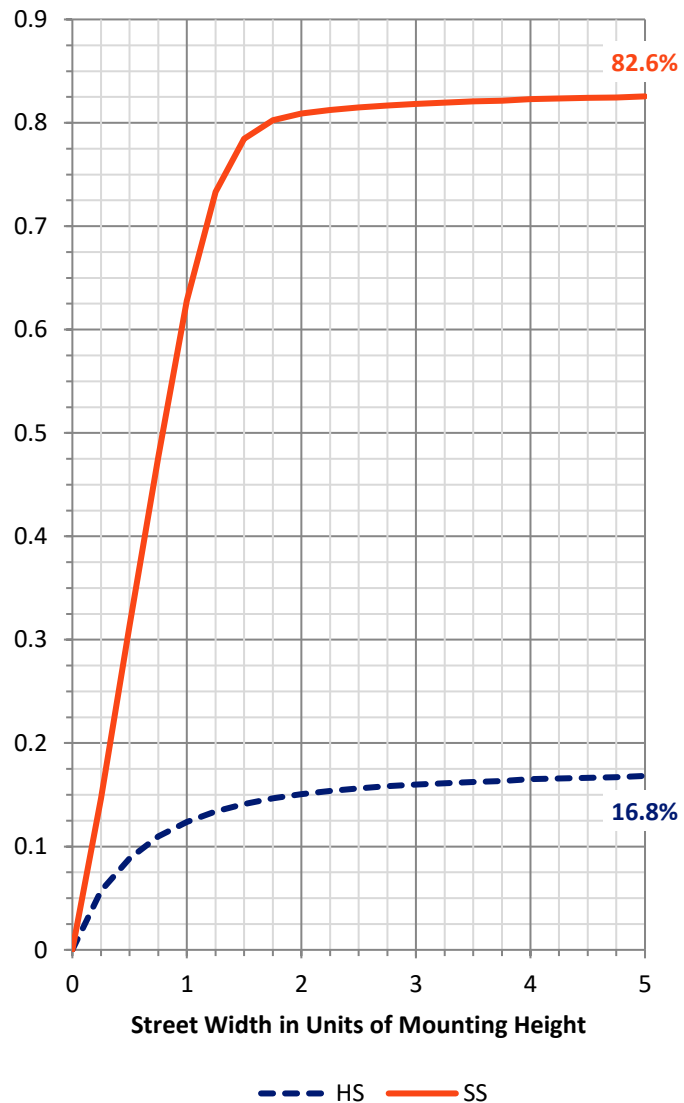
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6436.3	0.0	6436.3
	% Fixture	17.2	0.0	17.2
Street Side	Lumens	30901.7	0.0	30901.7
	% Fixture	82.8	0.0	82.8
Total	Lumens	37338.0	0.0	37338.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	791.1	2.1
10°-20°	2236.6	6.0
20°-30°	3643.0	9.8
30°-40°	5445.9	14.6
40°-50°	8260.3	22.1
50°-60°	9258.4	24.8
60°-70°	5468.3	14.6
70°-80°	1791.6	4.8
80°-90°	442.6	1.2
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°	37338.0	100.0
0°-180°	37338.0	100.0

Coefficient of Utilization



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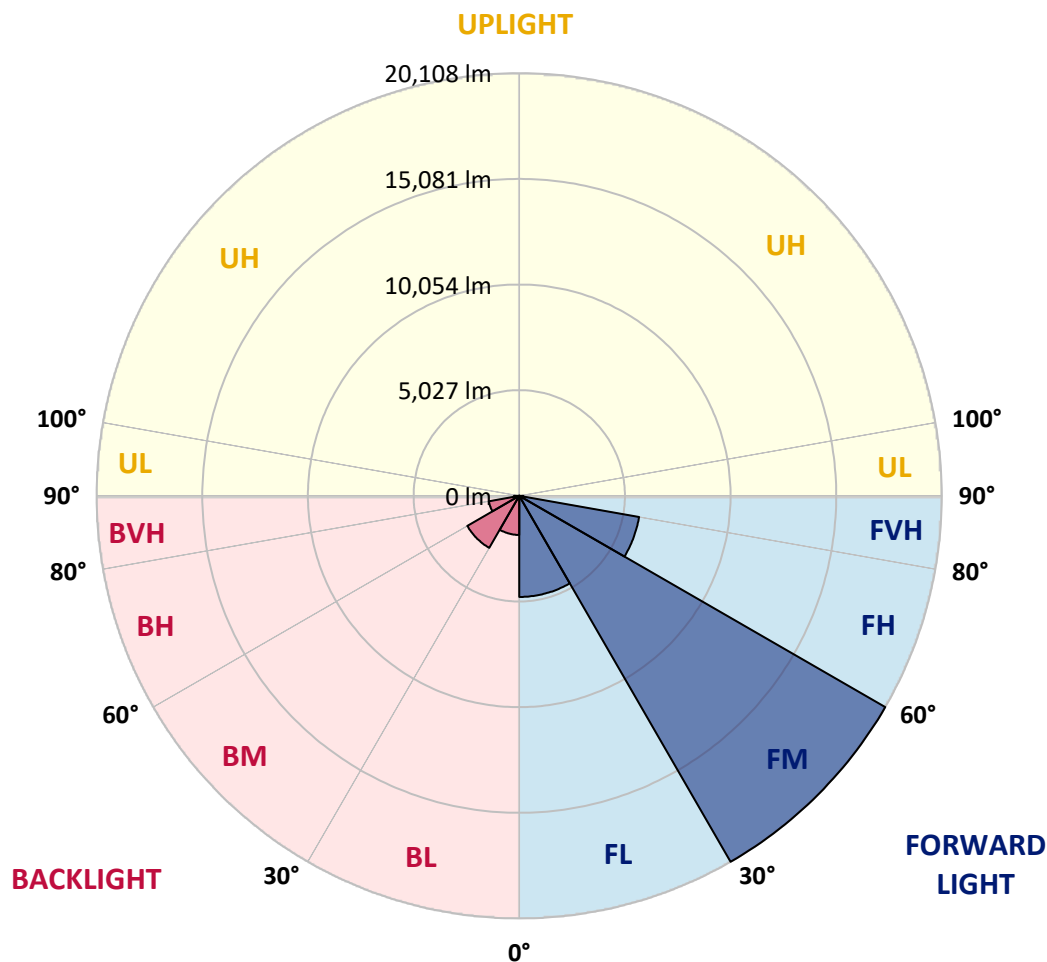
CATALOG NUMBER: GLEON-SA8B-830-U-AFL

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	4809.7	12.9			
FM	(30°-60°)	20107.7	53.9			
FH	(60°-80°)	5789.4	15.5			G3/7500
FVH	(80°-90°)	194.9	0.5			G2/225
BL	(0°-30°)	1861.1	5.0	B3/2500		
BM	(30°-60°)	2856.8	7.7	B3/5000		
BH	(60°-80°)	1470.6	3.9	B3/2500		G3/2500
BVH	(80°-90°)	247.7	0.7			G3/500
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	56°	65°	75°	85°
0°	8281.6	8281.6	8281.6	8281.6	8281.6	8281.6	8281.6	8281.6	8281.6	8281.6	8281.6
2.5°	9509.6	9596.9	9558.4	9424.9	9322.3	9177.3	9015.6	8966.8	8796.2	8605.0	8375.3
5°	11014.8	10971.1	10908.3	10700.4	10481.0	10225.6	9820.1	9756.0	9376.1	8943.7	8486.9
7.5°	11871.9	11868.1	11830.9	11709.0	11508.8	11175.2	10686.3	10610.6	10037.0	9341.5	8633.2
10°	11747.5	11738.5	11800.1	11927.1	11987.4	11918.1	11506.2	11430.5	10726.0	9781.6	8802.6
12.5°	11040.4	11045.6	11144.4	11411.3	11774.4	12210.7	12144.0	12106.7	11440.8	10279.5	9007.9
15°	10489.9	10501.5	10579.8	10812.0	11240.6	12032.3	12531.5	12544.3	12132.4	10828.7	9247.8
17.5°	10248.7	10273.1	10309.0	10472.0	10864.6	11676.9	12623.9	12693.2	12738.1	11398.4	9478.8
20°	10325.7	10348.8	10359.1	10463.0	10785.1	11461.3	12559.7	12684.2	13202.6	11934.8	9709.8
22.5°	10670.9	10685.0	10691.4	10718.3	10968.6	11522.9	12517.4	12648.2	13538.8	12416.0	9884.3
25°	11243.2	11232.9	11191.8	11157.2	11325.3	11766.7	12614.9	12739.3	13812.1	12852.3	9998.5
27.5°	11928.4	11915.6	11836.0	11741.0	11837.3	12146.5	12895.9	12994.7	14057.2	13260.3	10056.2
30°	12750.9	12717.5	12567.4	12454.5	12491.7	12716.3	13359.1	13448.9	14435.7	13723.5	10112.7
32.5°	13701.7	13665.8	13448.9	13261.6	13261.6	13448.9	13836.5	13910.9	14756.5	14247.1	10203.8
35°	14892.5	14847.6	14565.3	14250.9	14162.4	14257.3	14487.0	14539.6	15333.9	14906.6	10369.3
37.5°	16296.3	16236.0	15870.3	15449.4	15255.7	15250.5	15416.0	15523.8	16256.5	15772.8	10650.3
40°	17703.9	17661.6	17342.1	17011.0	16631.2	16509.3	16764.7	16798.0	17462.7	16848.1	11009.6
42.5°	18792.1	18784.4	18725.4	18769.0	18380.2	18133.8	18334.0	18360.9	18935.8	18011.9	11392.0
45°	19366.9	19379.8	19665.9	20299.8	20443.5	20263.9	20362.7	20370.4	20619.3	19186.0	11742.3
47.5°	18906.3	18973.0	19696.7	21114.6	22291.3	22888.0	22723.7	22818.7	22251.5	20194.6	12016.9
50°	17111.1	17193.2	18425.1	20751.5	23153.6	25427.4	25341.4	25319.6	23568.0	20933.7	12165.8
52.5°	14887.4	14951.5	15967.8	18863.9	22521.0	26831.2	27620.3	27507.4	24738.3	21486.7	12194.0
55°	11501.1	11601.2	12575.1	15096.5	19962.3	26294.8	29296.1	29194.8	25804.6	21776.7	12160.6
57°	8176.4	8281.6	9249.1	11521.6	16792.9	24438.0	29462.9	29570.7	26380.8	21825.5	12197.8
57.5°	7296.1	7403.9	8362.4	10569.5	15804.8	23766.9	29319.2	29498.9	26484.7	21817.8	12218.4
60°	3673.7	3714.8	4325.6	5900.0	9990.8	19214.2	27444.5	27907.7	26578.4	21440.5	12306.9
62.5°	2284.0	2254.5	2235.3	2717.8	4860.7	12741.9	23575.7	24467.6	24785.8	20526.9	12092.6
65°	2008.2	1953.0	1741.3	1702.8	2146.7	6188.7	17754.0	18863.9	20955.5	19087.2	11581.9
67.5°	1886.3	1832.4	1593.7	1450.0	1451.3	2453.4	11022.5	12272.3	16324.5	16653.0	10377.0
70°	1760.5	1711.8	1488.5	1319.1	1235.7	1358.9	5071.1	6019.4	10641.4	13089.7	8673.0
72.5°	1598.8	1565.5	1353.7	1179.2	1090.7	1017.6	1941.4	2293.0	6160.5	8791.0	6023.2
75°	1429.5	1398.7	1217.7	1050.9	943.1	800.7	1093.3	1178.0	3129.7	4497.5	2965.4
77.5°	1243.4	1225.4	1083.0	929.0	843.0	663.4	773.8	814.8	1342.2	1928.6	1487.2
80°	989.3	1024.0	947.0	827.6	748.1	531.2	547.9	574.9	781.5	941.8	844.3
82.5°	644.2	704.5	741.7	672.4	615.9	418.3	393.9	405.5	509.4	574.9	367.0
85°	268.2	301.5	487.6	440.1	409.3	305.4	264.3	269.5	315.7	327.2	150.1
87.5°	119.3	127.0	214.3	201.5	173.2	105.2	112.9	123.2	168.1	159.1	57.7
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-SA8B-830-U-AFL

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	8281.6	8281.6	8281.6	8281.6	8281.6	8281.6	8281.6	8281.6	8281.6	8281.6	8281.6
2.5°	8289.3	8181.5	7996.7	7792.7	7625.9	7492.5	7357.7	7265.3	7157.5	7099.8	7070.3
5°	8295.7	8084.0	7695.2	7296.1	6939.4	6613.5	6302.9	6064.3	5841.0	5720.4	5687.0
7.5°	8322.7	8004.4	7375.7	6718.7	6084.8	5506.1	5059.6	4779.8	4578.4	4488.5	4462.9
10°	8344.5	7910.8	6980.5	6007.8	5145.5	4559.1	4212.7	4056.1	3986.8	3975.3	3963.7
12.5°	8395.8	7814.5	6564.7	5266.1	4415.4	4009.9	3889.3	3879.0	3898.3	3926.5	3926.5
15°	8476.6	7719.6	6089.9	4629.7	3950.9	3808.5	3832.8	3889.3	3941.9	3985.5	3992.0
17.5°	8535.7	7602.8	5579.2	4120.3	3703.2	3741.7	3829.0	3908.5	3962.4	4004.8	4008.6
20°	8578.0	7421.9	5033.9	3731.5	3560.8	3680.1	3789.2	3859.8	3897.0	3939.3	3945.8
22.5°	8556.2	7179.4	4550.1	3453.0	3445.3	3590.3	3694.3	3778.9	3750.7	3709.7	3736.6
25°	8451.0	6845.7	4052.3	3245.1	3323.4	3469.7	3598.0	3541.6	3446.6	3428.6	3438.9
27.5°	8263.6	6419.7	3591.6	3052.7	3182.3	3358.1	3350.4	3293.9	3260.5	3237.4	3251.6
30°	8062.2	5957.8	3188.7	2884.6	3025.7	3170.7	3141.2	3139.9	3106.6	3069.4	3087.3
32.5°	7863.3	5493.3	2869.2	2746.0	2907.7	2926.9	2991.1	3010.3	2944.9	2866.6	2861.5
35°	7690.1	5054.4	2626.7	2620.2	2765.2	2767.8	2861.5	2834.5	2671.6	2590.7	2590.7
37.5°	7560.5	4616.9	2441.9	2507.3	2577.9	2644.6	2692.1	2580.5	2553.5	2508.6	2507.3
40°	7504.0	4231.9	2326.4	2421.3	2445.7	2530.4	2408.5	2452.1	2465.0	2441.9	2441.9
42.5°	7445.0	3897.0	2226.3	2355.9	2352.1	2340.5	2278.9	2335.4	2386.7	2388.0	2384.1
45°	7385.9	3608.3	2137.8	2216.0	2269.9	2145.5	2157.0	2217.3	2289.2	2314.8	2314.8
47.5°	7320.5	3379.9	2056.9	2068.5	2151.9	2068.5	2059.5	2105.7	2190.4	2231.4	2240.4
50°	7176.8	3174.6	1964.5	1938.9	1962.0	1990.2	1997.9	2019.7	2113.4	2178.8	2194.2
52.5°	6977.9	2991.1	1846.5	1819.5	1819.5	1926.0	1962.0	1968.4	2047.9	2126.2	2141.6
55°	6812.4	2874.3	1724.6	1719.5	1714.3	1858.0	1919.6	1929.9	1985.1	2046.7	2054.4
57°	6823.9	2865.3	1630.9	1636.0	1634.8	1788.7	1879.8	1901.7	1929.9	1982.5	1991.5
57.5°	6830.3	2871.7	1610.4	1612.9	1611.7	1769.5	1868.3	1892.7	1914.5	1969.7	1978.7
60°	6926.6	2888.4	1527.0	1498.7	1505.2	1666.8	1802.9	1833.7	1847.8	1920.9	1932.5
62.5°	6784.1	2814.0	1460.3	1392.2	1392.2	1559.1	1711.8	1760.5	1782.3	1881.1	1900.4
65°	6371.0	2604.8	1382.0	1271.6	1284.5	1451.3	1602.7	1682.2	1715.6	1838.8	1859.3
67.5°	5733.2	2362.3	1298.6	1163.8	1176.7	1338.4	1489.8	1575.7	1628.3	1792.6	1809.3
70°	4903.0	2065.9	1185.7	1049.6	1065.0	1215.2	1356.3	1453.8	1532.1	1749.0	1754.1
72.5°	3614.7	1693.8	1027.8	923.9	940.6	1071.4	1221.6	1334.5	1439.7	1639.9	1637.3
75°	2149.3	1324.2	853.3	796.9	808.4	930.3	1099.7	1237.0	1394.8	1597.6	1621.9
77.5°	1303.7	997.0	695.5	667.3	681.4	805.8	1012.4	1158.7	1375.6	1506.4	1498.7
80°	787.9	712.2	555.6	537.6	551.8	689.1	936.7	1099.7	1202.3	1287.0	1287.0
82.5°	411.9	435.0	408.0	393.9	413.2	559.5	852.0	959.8	1062.5	912.3	852.0
85°	168.1	227.1	247.7	246.4	257.9	387.5	735.3	821.2	685.2	650.6	666.0
87.5°	56.5	96.2	120.6	103.9	109.1	243.8	509.4	396.5	470.9	328.5	311.8
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

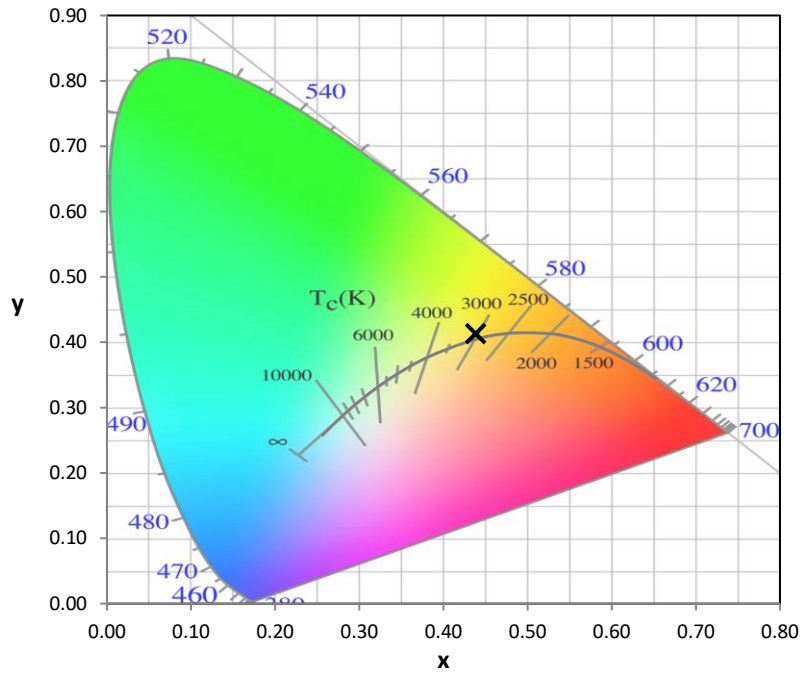
Stabilization Time: 20M
 Operation Time: 1H 20M
 Sphere Temperature (°C): 24.2

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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

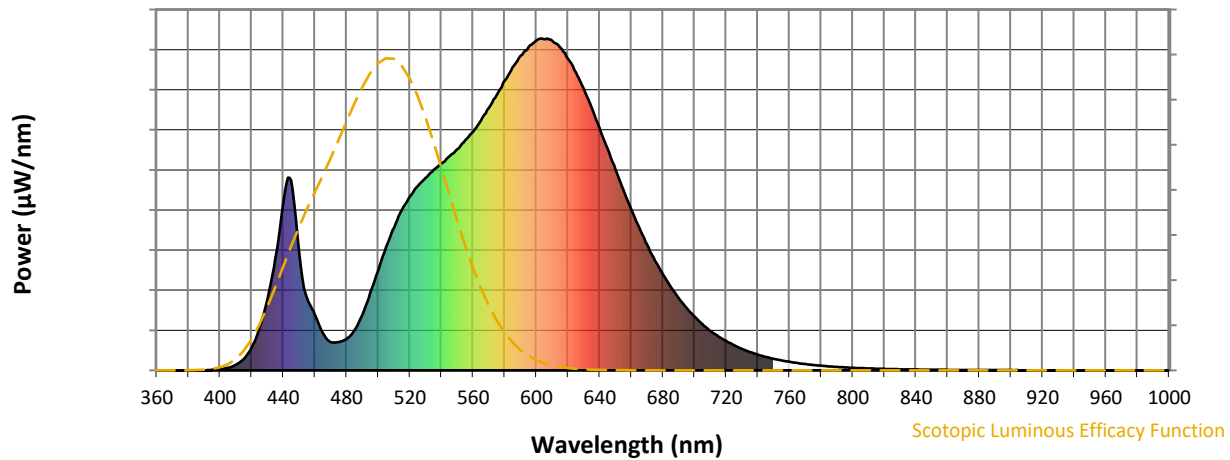


Photopic Lumens: NR

λ (nm)	Power 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



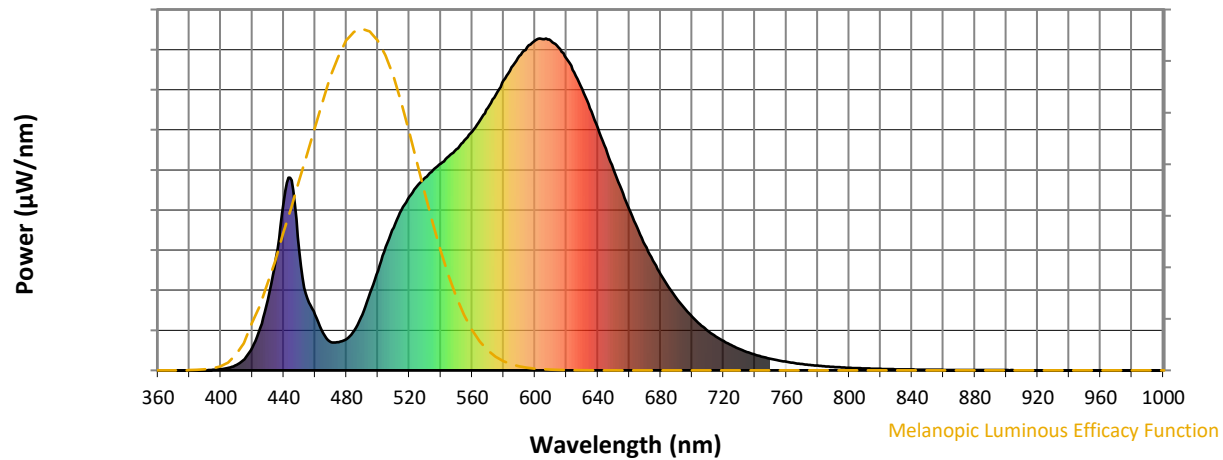
Scotopic Lumens: NR

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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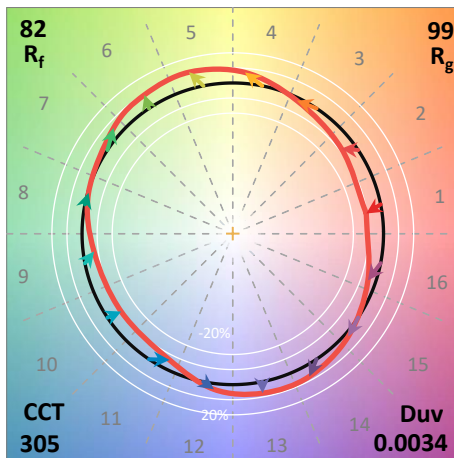
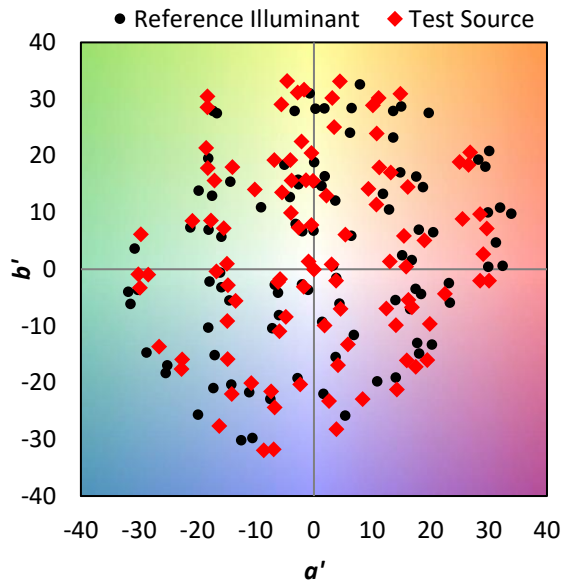
TM-30-18

Summary

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



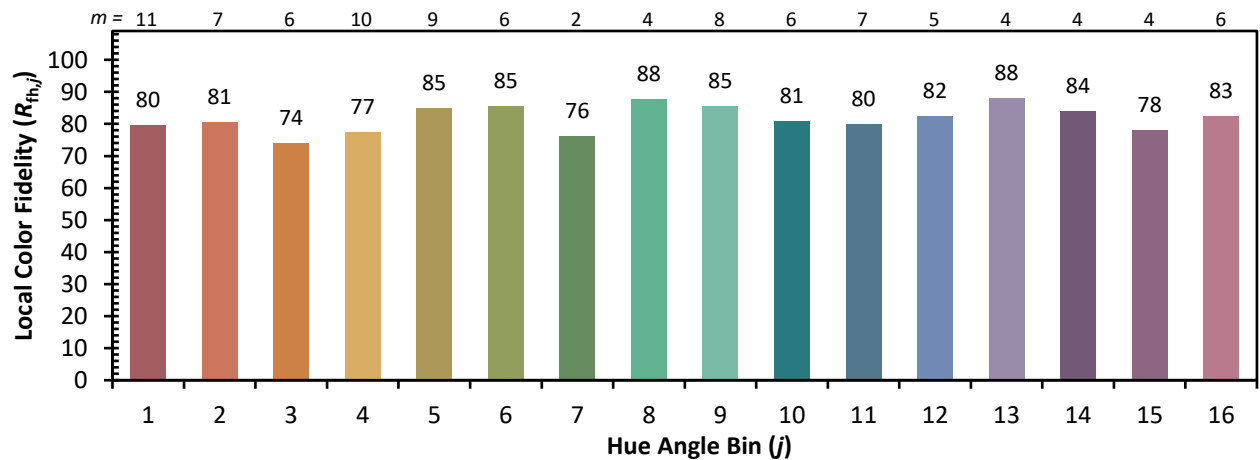
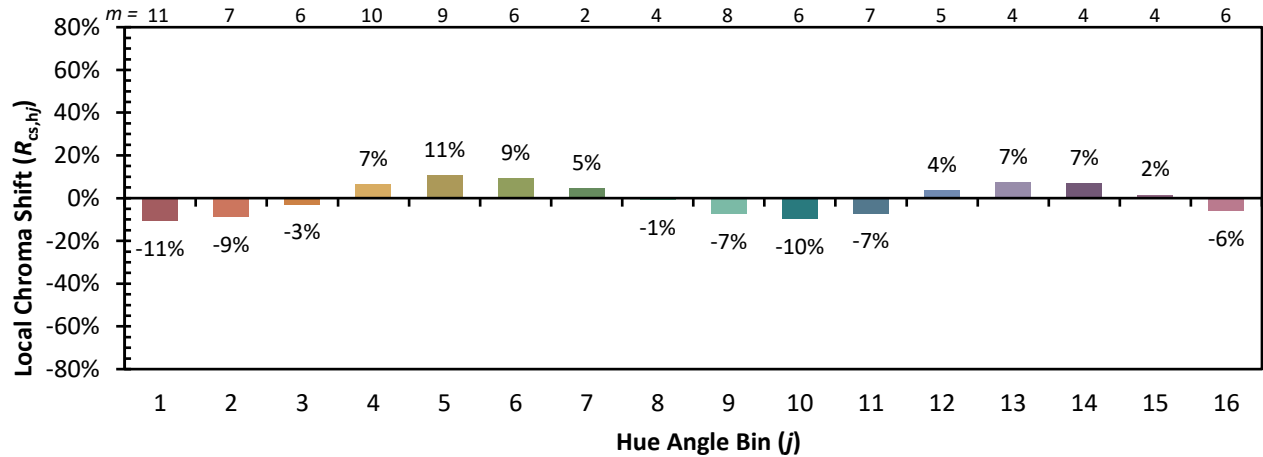
Color Vector Graphics

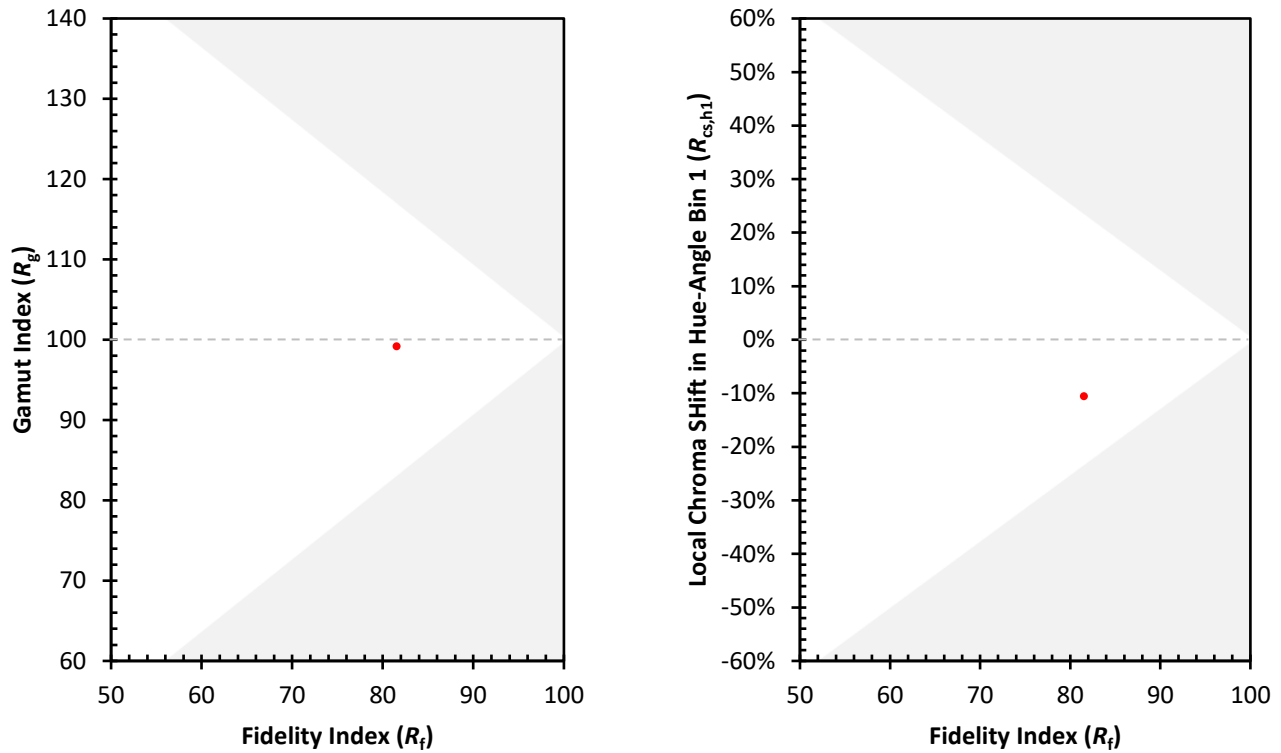


Individual Sample Fidelity Index ($R_{f,i}$)

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)