

Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



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: P323035

Luminaire Tested: **GLEON-SA1B-830-U-T4W-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P323035
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-SA1B-830-U-T4W-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(1) 80 CRI, 3000K, 800mA LIGHTSQUARE WITH 16 LEDS AND TYPE IV WIDE OPTICS
WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3446 lumens
Efficiency: N/A
Efficacy: 78.3 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B0 - U0 - G1

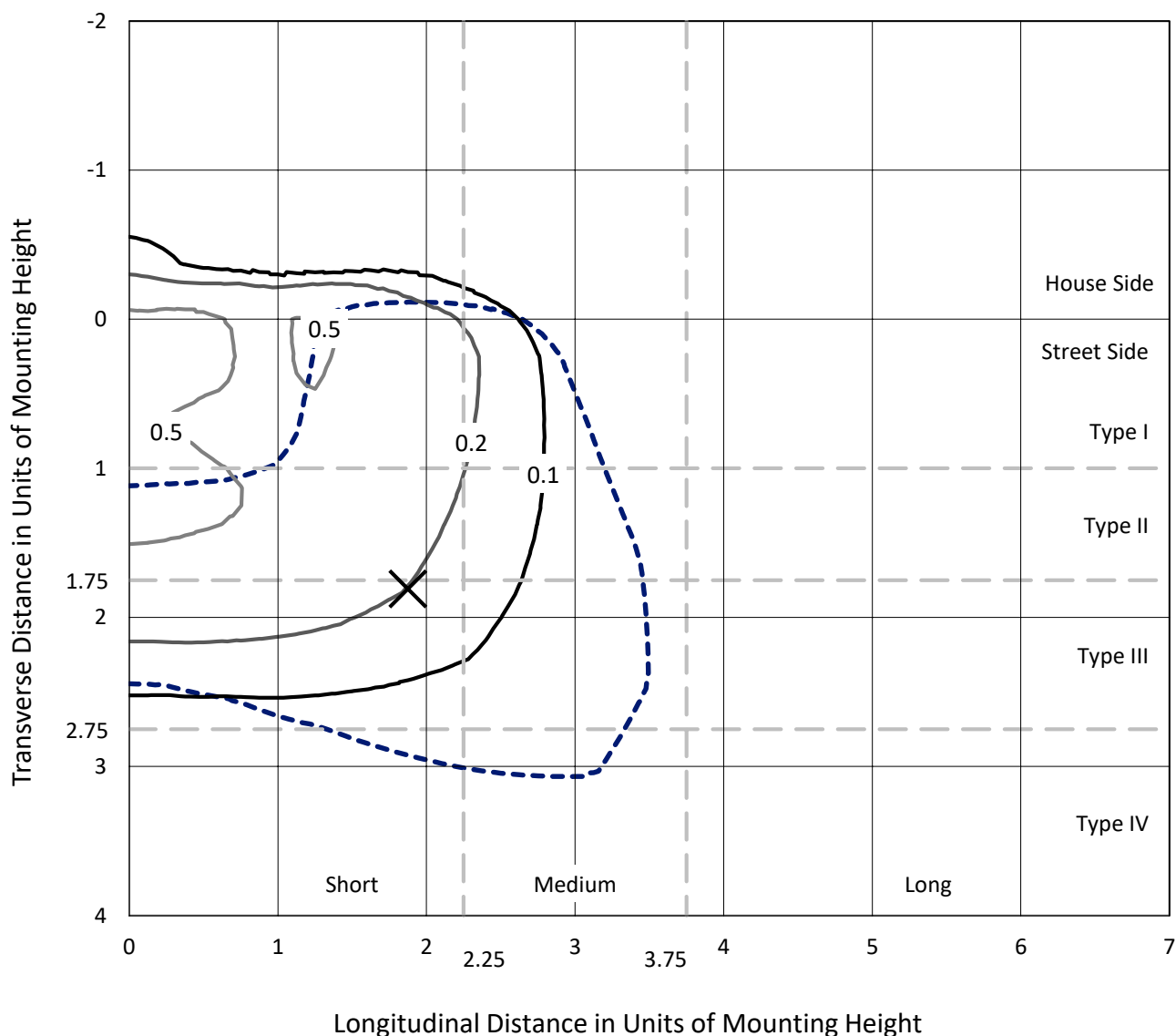
Input Watts (W): 44
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P323035
 CATALOG NUMBER: GLEON-SA1B-830-U-T4W-HSS

Iso-Footcandle Lines of Horizontal Illumination

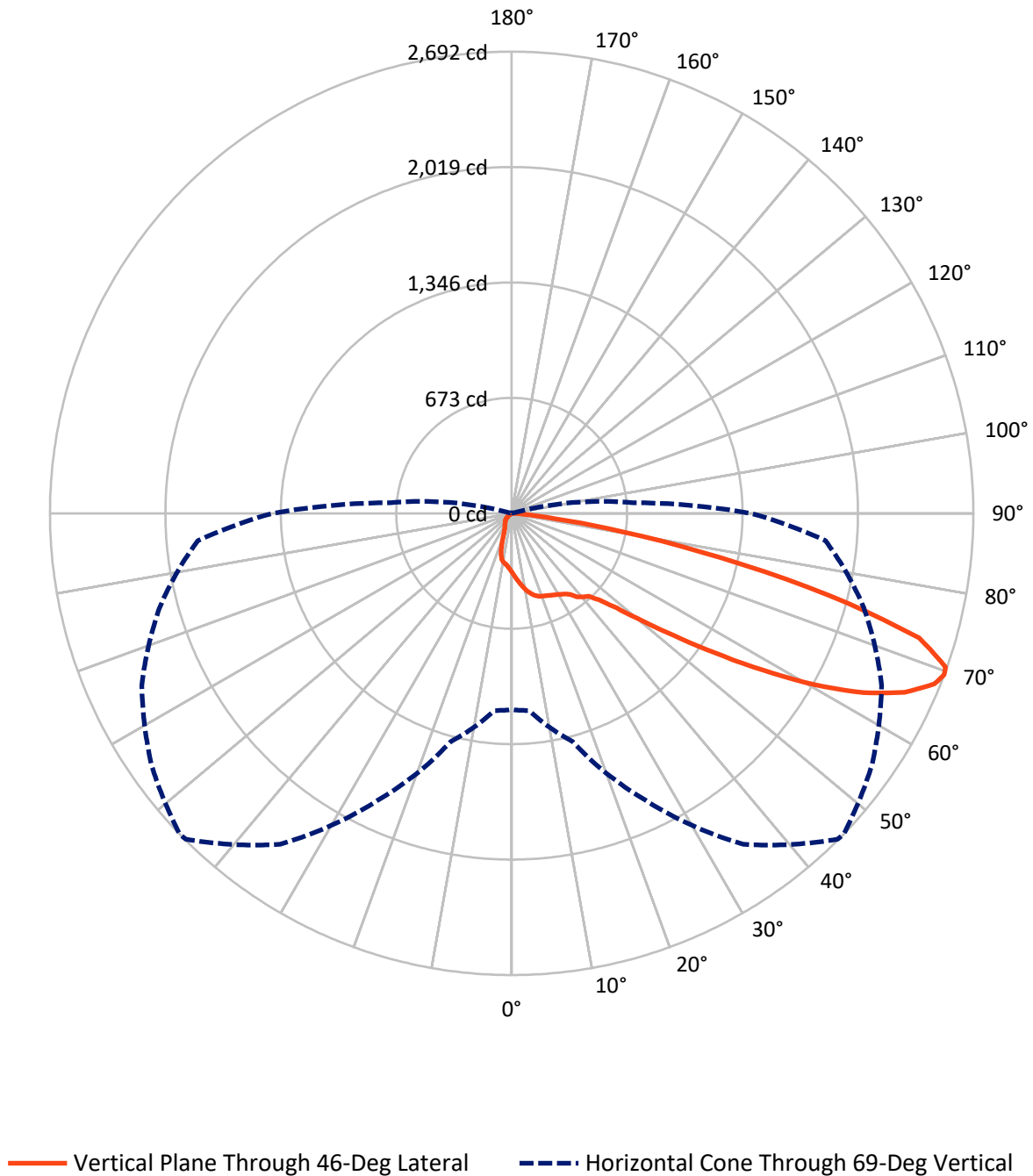
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 0.8 fc
 Type IV - Short - N/A

REPORT NUMBER: P323035
CATALOG NUMBER: GLEON-SA1B-830-U-T4W-HSS

Luminous Intensity Polar Plot



REPORT NUMBER: P323035
 CATALOG NUMBER: GLEON-SA1B-830-U-T4W-HSS

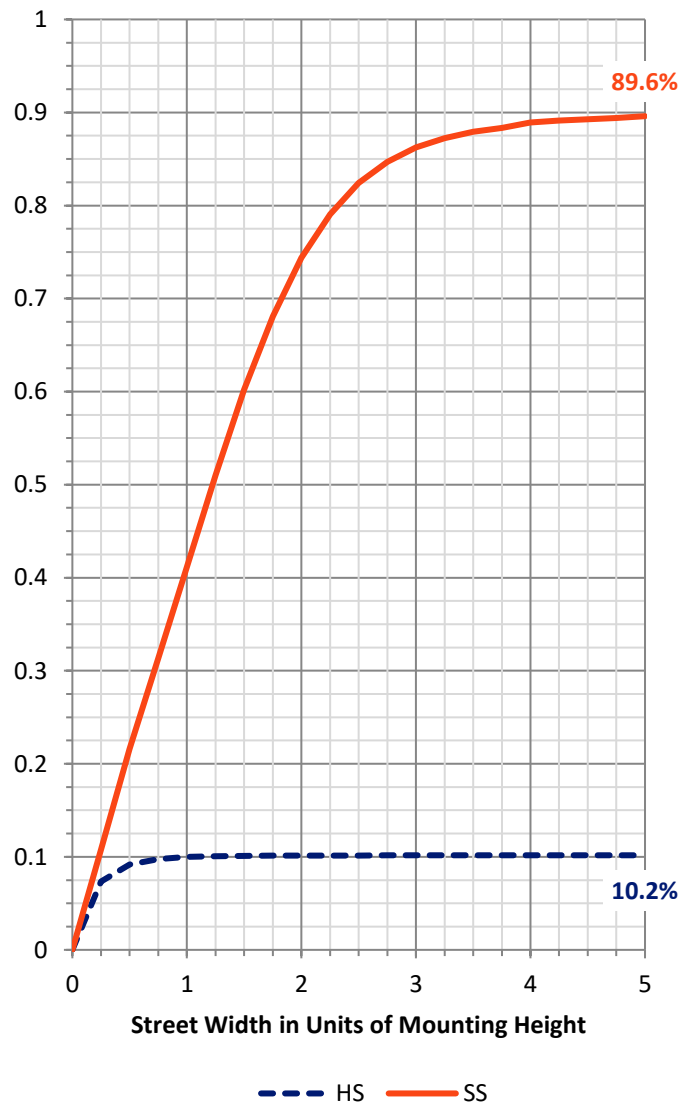
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	353.7	0.0	353.7
	% Fixture	10.3	0.0	10.3
Street Side	Lumens	3092.4	0.0	3092.4
	% Fixture	89.7	0.0	89.7
Total	Lumens	3446.0	0.0	3446.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	34.4	1.0
10°-20°	104.3	3.0
20°-30°	164.0	4.8
30°-40°	235.1	6.8
40°-50°	406.4	11.8
50°-60°	802.9	23.3
60°-70°	1122.1	32.6
70°-80°	542.1	15.7
80°-90°	34.8	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°	3446.0	100.0
0°-180°	3446.0	100.0

Coefficient of Utilization



REPORT NUMBER: P323035

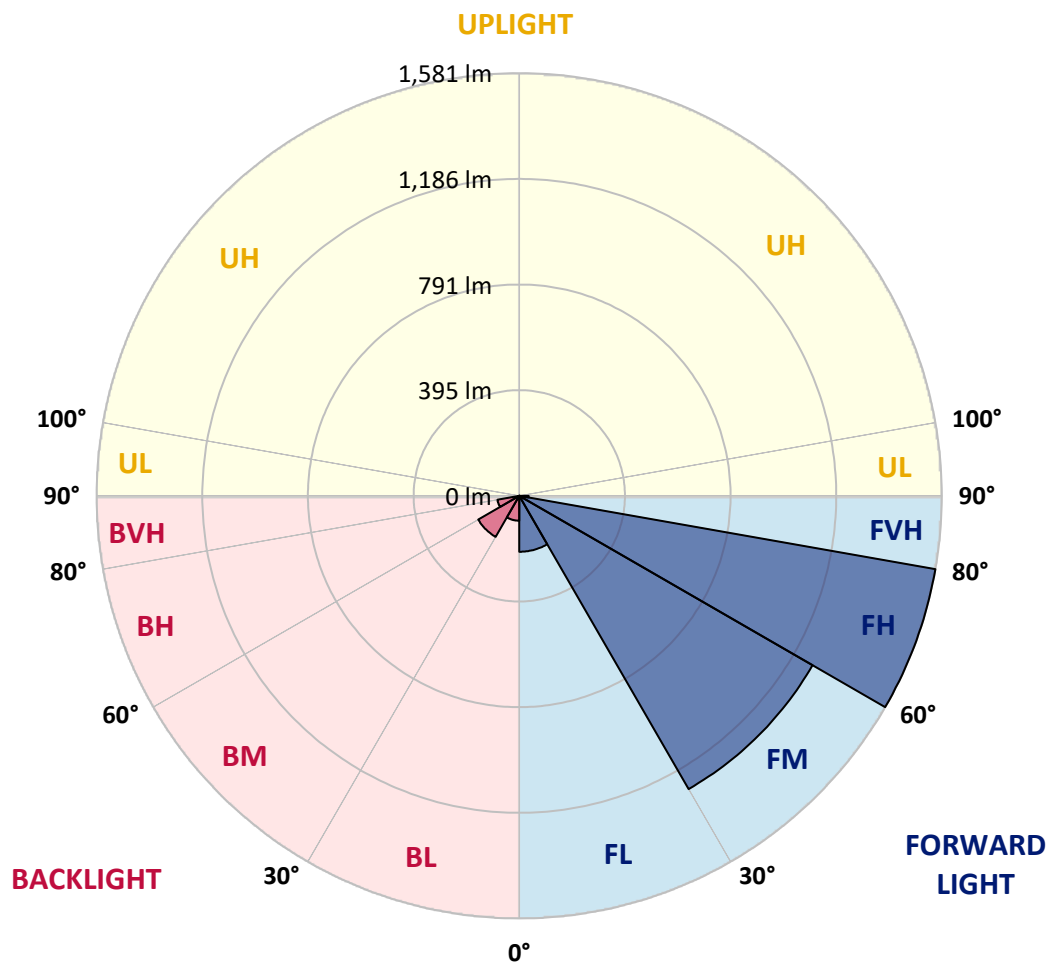
CATALOG NUMBER: GLEON-SA1B-830-U-T4W-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	209.4	6.1			
FM	(30°-60°)	1267.2	36.8			
FH	(60°-80°)	1581.2	45.9			G1/1800
FVH	(80°-90°)	34.6	1.0			G1/100
BL	(0°-30°)	93.2	2.7	B0/110		
BM	(30°-60°)	177.2	5.1	B0/220		
BH	(60°-80°)	82.9	2.4	B0/110		G0/110
BVH	(80°-90°)	0.3	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B0-U0-G1

Type IV Short





REPORT NUMBER: P323035

CATALOG NUMBER: GLEON-SA1B-830-U-T4W-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	345.3	345.3	345.3	345.3	345.3	345.3	345.3	345.3	345.3	345.3	345.3
2.5°	383.6	383.1	380.8	379.9	374.4	371.1	369.8	365.8	360.0	354.2	347.7
5°	427.2	427.0	422.8	418.8	408.5	398.8	397.0	387.6	374.5	362.2	350.0
7.5°	471.8	469.7	465.5	457.7	442.7	427.2	425.7	412.5	393.9	376.1	358.5
10°	509.6	508.3	502.8	491.0	473.4	455.8	454.0	437.7	416.7	394.9	372.4
12.5°	539.0	538.0	530.8	516.1	497.3	479.1	476.6	462.1	439.6	415.2	388.7
15°	556.9	556.4	547.6	531.9	513.5	497.6	495.5	482.8	461.9	436.4	406.5
17.5°	561.1	561.3	552.1	536.3	521.1	509.8	508.1	498.4	481.0	455.6	424.3
20°	551.8	553.7	545.5	531.7	522.4	516.4	515.1	509.3	494.6	470.7	438.5
22.5°	538.5	539.5	533.8	524.6	520.7	521.9	521.2	518.0	505.6	483.6	452.6
25°	530.4	530.4	527.0	519.3	521.9	528.8	529.0	528.3	518.5	499.4	469.7
27.5°	530.1	529.1	525.3	519.4	526.6	537.2	537.9	542.2	536.1	518.6	491.0
30°	543.0	541.9	533.7	526.1	535.1	546.6	548.2	557.7	554.7	539.5	514.8
32.5°	573.3	569.2	551.0	538.5	545.3	559.0	561.1	576.3	581.2	565.2	537.7
35°	614.6	601.9	575.5	562.1	562.8	577.1	579.1	601.4	615.7	588.8	555.5
37.5°	671.6	665.3	622.5	586.7	589.6	611.4	617.0	641.3	637.2	601.7	575.7
40°	796.7	786.8	741.3	655.5	615.3	639.2	641.0	653.9	654.2	630.9	617.7
42.5°	967.0	963.0	915.0	780.4	665.8	657.8	661.0	682.8	707.2	692.7	692.0
45°	1155.6	1153.5	1102.6	946.2	768.1	718.7	722.7	751.9	798.6	801.9	822.4
47.5°	1307.3	1306.3	1277.1	1131.2	924.7	821.9	823.2	854.2	936.3	976.9	1009.7
50°	1445.6	1450.3	1427.2	1331.3	1137.9	983.6	980.6	1001.3	1133.1	1199.5	1240.2
52.5°	1637.8	1644.5	1579.7	1518.1	1361.7	1184.3	1181.9	1203.5	1369.6	1419.4	1426.7
55°	1807.7	1796.3	1745.1	1727.4	1634.6	1432.2	1431.5	1450.6	1598.4	1619.6	1633.0
57.5°	1882.6	1878.3	1903.0	1943.7	1920.4	1725.1	1723.6	1709.1	1803.1	1805.4	1846.6
60°	1930.0	1935.3	2011.1	2136.6	2194.6	2040.3	2030.9	1942.2	1998.6	1993.6	2037.7
62.5°	1894.4	1904.9	2041.3	2250.5	2399.8	2315.5	2302.2	2155.8	2165.7	2148.4	2189.4
65°	1705.7	1722.0	1945.5	2229.0	2501.6	2530.5	2517.1	2344.4	2298.3	2269.9	2247.1
67.5°	1385.0	1394.7	1628.0	2042.1	2455.7	2658.8	2656.1	2509.7	2398.5	2249.4	2072.6
69°	1144.6	1154.1	1378.7	1845.3	2354.7	2686.3	2691.6	2562.7	2379.4	2124.7	1836.4
70°	969.4	979.6	1188.8	1676.6	2237.6	2673.5	2683.0	2557.7	2324.8	1980.2	1629.1
72.5°	508.5	517.2	731.9	1155.1	1824.1	2454.9	2483.8	2341.5	1970.7	1438.1	963.3
75°	159.8	164.8	285.8	603.8	1248.9	1908.8	1915.4	1836.7	1399.4	791.0	401.2
77.5°	60.9	59.5	95.2	222.5	631.4	1201.9	1242.5	1147.8	734.3	279.7	92.6
80°	32.8	33.0	49.4	92.1	270.1	617.7	651.9	556.3	260.9	87.2	21.3
82.5°	14.2	14.9	27.8	48.8	124.1	227.8	244.9	203.9	99.7	58.7	7.9
85°	3.1	3.4	13.4	26.5	50.6	64.0	67.1	66.1	63.5	45.6	3.1
87.5°	0.0	0.0	6.0	9.5	12.8	14.5	12.8	16.6	35.1	30.7	1.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P323035

CATALOG NUMBER: GLEON-SA1B-830-U-T4W-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	345.3	345.3	345.3	345.3	345.3	345.3	345.3	345.3	345.3	345.3	345.3
2.5°	345.6	342.7	337.7	332.2	328.3	324.3	321.0	319.6	318.0	316.8	318.3
5°	345.0	339.3	329.6	320.2	313.4	308.0	303.4	301.7	299.9	298.6	298.4
7.5°	350.6	342.7	327.8	314.1	303.6	296.2	290.0	287.4	285.3	284.4	283.6
10°	361.4	351.3	331.4	313.4	299.9	287.3	274.0	263.8	257.2	254.2	253.0
12.5°	375.5	362.7	338.2	316.8	297.1	272.9	244.8	220.5	204.9	199.7	196.6
15°	392.0	376.1	347.1	321.2	287.1	242.8	195.2	163.5	149.0	146.1	142.8
17.5°	407.8	390.4	357.7	322.0	265.1	194.0	143.0	121.5	115.8	117.8	118.3
20°	421.7	404.4	368.2	314.9	225.2	145.6	110.7	105.3	107.4	111.2	111.8
22.5°	435.8	418.0	377.9	296.2	174.2	110.5	99.7	101.0	103.1	106.8	107.4
25°	452.9	434.5	387.0	261.7	130.7	94.0	94.7	96.6	98.7	102.1	102.4
27.5°	472.6	455.3	392.9	217.0	96.9	86.4	88.5	91.4	93.5	96.8	97.4
30°	498.8	482.8	394.9	170.6	81.3	79.7	80.6	84.2	87.2	90.2	90.6
32.5°	523.3	509.9	388.4	128.8	75.3	73.4	73.4	75.5	79.0	81.8	82.4
35°	545.9	537.2	367.7	94.2	70.8	67.5	65.9	65.9	68.2	70.4	71.1
37.5°	575.8	575.5	334.3	75.1	66.4	62.7	59.3	56.7	55.9	56.4	56.7
40°	627.1	627.5	290.7	67.4	62.7	57.7	52.5	47.8	43.5	42.0	41.8
42.5°	707.0	699.8	244.9	63.7	59.5	52.5	44.8	38.5	31.7	29.6	29.4
45°	834.0	790.9	196.5	60.3	56.1	46.7	37.0	28.4	22.9	21.3	21.3
47.5°	1019.0	910.6	152.2	56.5	51.5	40.1	28.0	20.5	16.8	16.0	16.2
50°	1210.3	1027.9	116.7	51.9	46.0	33.1	20.7	14.9	12.8	12.8	12.9
52.5°	1380.0	1113.9	91.0	46.9	39.3	26.0	15.7	11.6	10.7	10.5	10.7
55°	1538.8	1169.3	69.6	41.0	31.2	19.4	12.0	9.5	8.9	8.6	8.4
57.5°	1692.0	1196.8	52.2	33.1	22.6	14.1	9.5	8.1	7.4	6.9	6.8
60°	1793.9	1174.5	35.9	24.4	15.7	10.2	7.9	6.9	6.1	5.7	5.5
62.5°	1851.4	1113.5	23.1	17.6	11.1	7.6	6.3	5.8	4.7	4.2	4.2
65°	1828.2	1013.0	16.2	12.6	8.1	5.7	4.7	4.7	3.4	2.7	2.6
67.5°	1620.1	855.8	12.3	9.4	5.8	4.2	3.6	4.0	2.1	1.3	1.3
69°	1393.9	709.3	10.5	7.8	4.8	3.4	3.1	3.7	1.5	1.0	0.8
70°	1211.5	611.9	9.5	6.8	4.0	2.9	2.7	3.6	1.5	0.8	0.6
72.5°	724.8	341.2	7.3	4.8	2.6	2.3	2.3	4.0	1.5	0.8	0.6
75°	292.9	120.2	5.3	3.4	1.9	1.9	2.7	5.2	1.3	0.6	0.5
77.5°	66.4	26.3	3.1	2.1	1.3	1.9	3.2	4.0	0.8	0.3	0.0
80°	16.2	6.5	1.9	1.3	0.8	1.5	2.4	2.3	0.2	0.0	0.0
82.5°	5.3	2.3	0.8	0.6	0.2	0.5	1.1	0.6	0.0	0.0	0.0
85°	2.3	1.3	0.3	0.2	0.0	0.0	0.2	0.0	0.0	0.0	0.0
87.5°	1.5	0.5	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

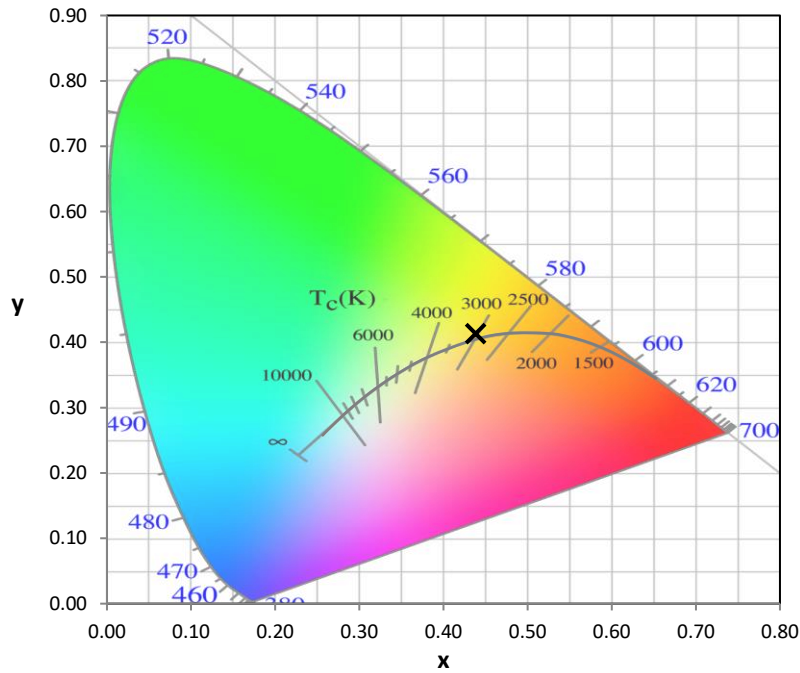
Stabilization Time: 20M
 Operation Time: 1H 20M
 Sphere Temperature (°C): 24.2

REPORT NUMBER: SP1-2408-195-9

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

REPORT NUMBER: SP1-2408-195-9

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

REPORT NUMBER: SP1-2408-195-9

Photopic Flux vs. Wavelength

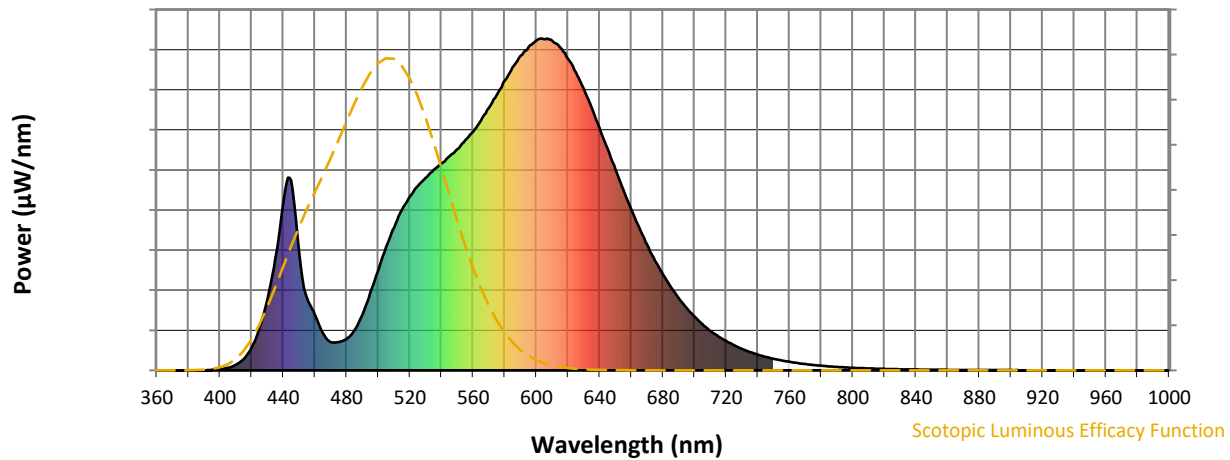


Photopic Lumens: NR

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			

REPORT NUMBER: SP1-2408-195-9

Scotopic Flux vs. Wavelength



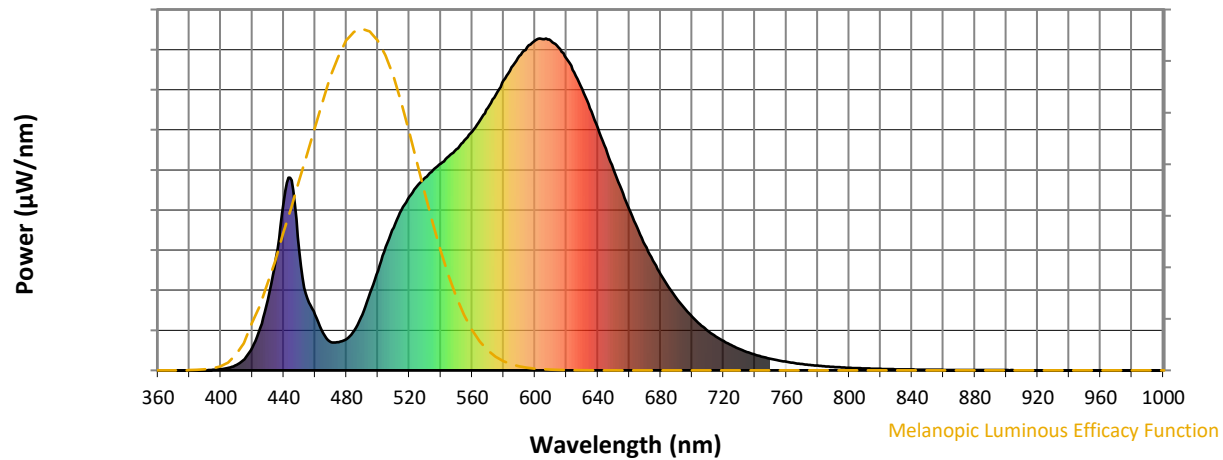
Scotopic Lumens: NR

S/P: 1.27

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			

REPORT NUMBER: SP1-2408-195-9

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			

REPORT NUMBER: SP1-2408-195-9

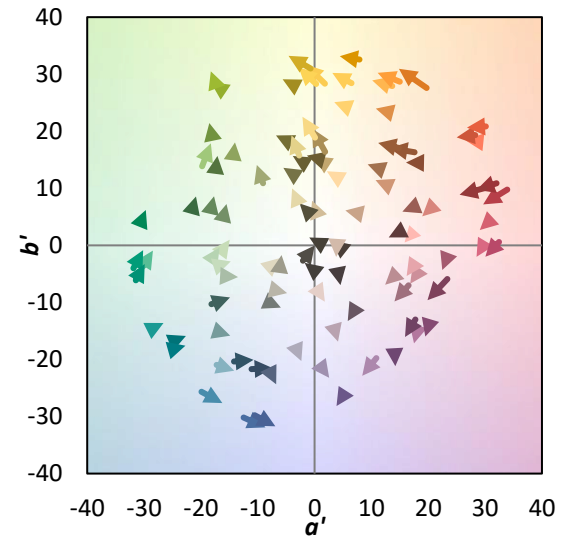
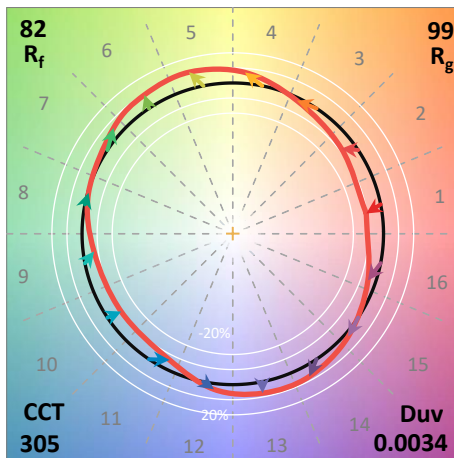
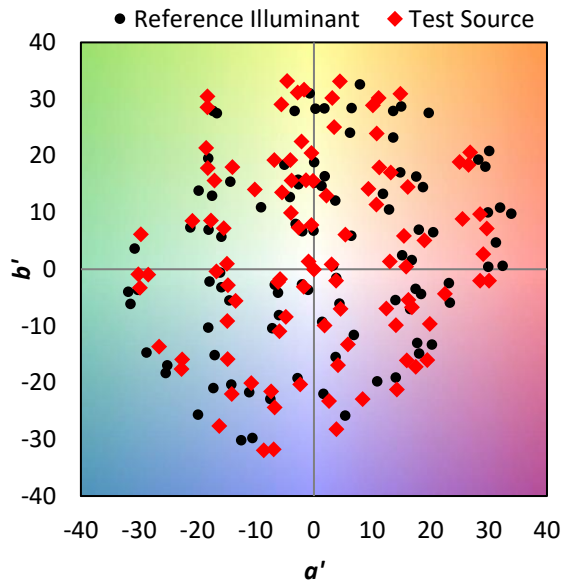
TM-30-18

Summary

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



Color Vector Graphics

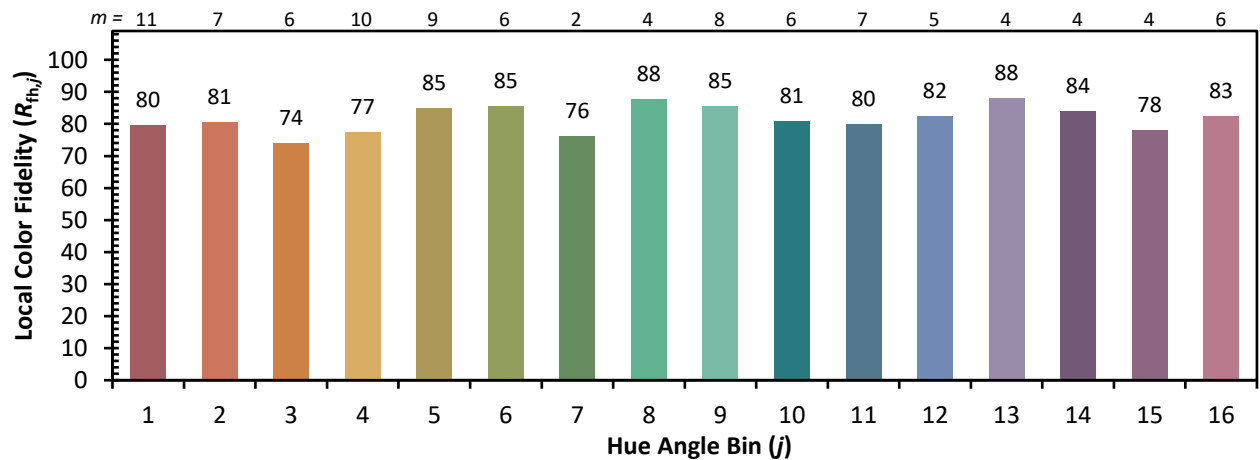
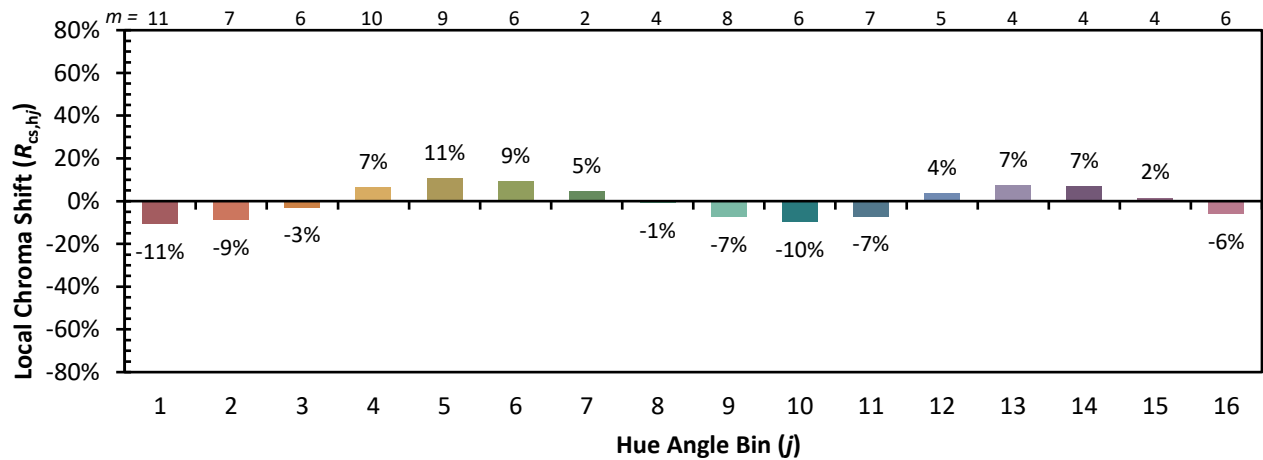


Individual Sample Fidelity Index ($R_{f,i}$)

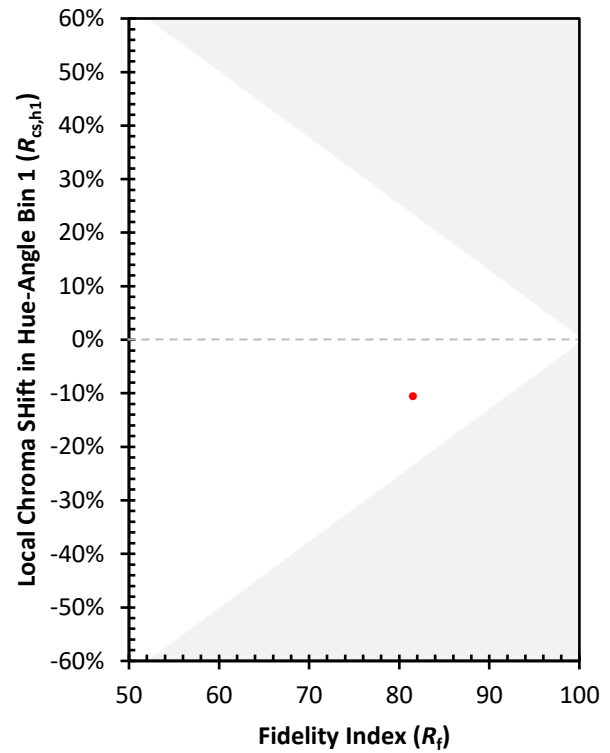
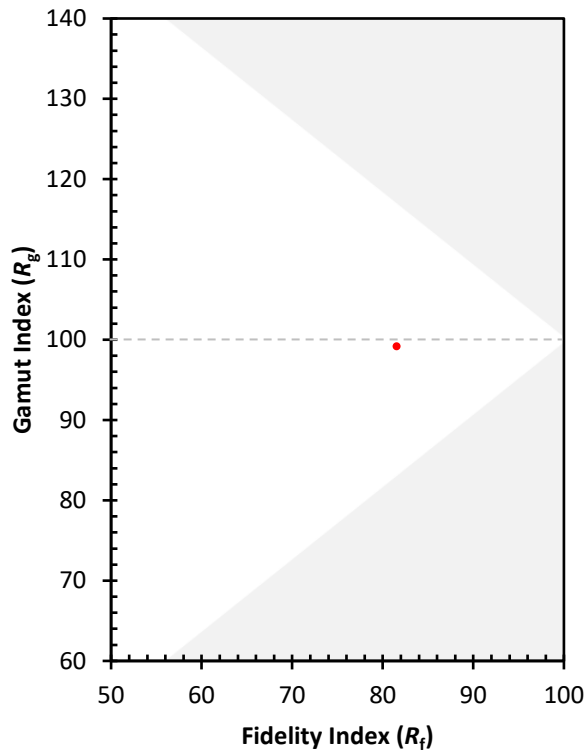
CES01 = 86	CES26 = 74	CES51 = 89	CES76 = 70
CES02 = 63	CES27 = 88	CES52 = 92	CES77 = 86
CES03 = 31	CES28 = 89	CES53 = 81	CES78 = 72
CES04 = 70	CES29 = 67	CES54 = 87	CES79 = 90
CES05 = 50	CES30 = 68	CES55 = 85	CES80 = 88
CES06 = 51	CES31 = 71	CES56 = 78	CES81 = 78
CES07 = 42	CES32 = 70	CES57 = 76	CES82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