

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: P321455

Luminaire Tested: **GLEON-SA1D-830-U-T2R-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P321455
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-9)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: GLEON-SA1D-830-U-T2R-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(1) 80 CRI, 3000K, 1200mA LIGHTSQUARE WITH 16 LEDS AND TYPE II ROADWAY
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5210 lumens
Efficiency: N/A
Efficacy: 77.8 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B0 - U0 - G1

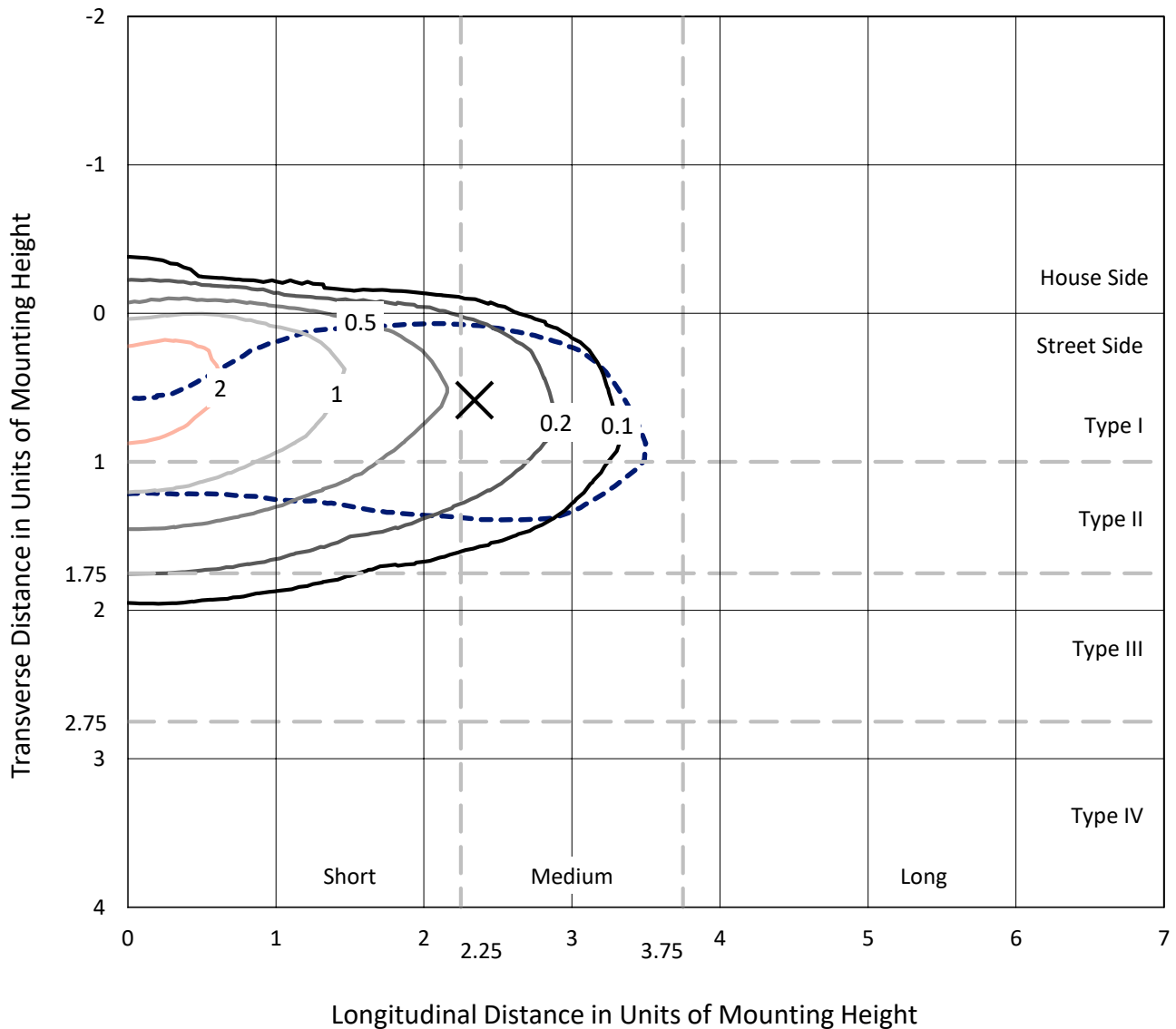
Input Watts (W): 67
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P321455
 CATALOG NUMBER: GLEON-SA1D-830-U-T2R-HSS

Iso-Footcandle Lines of Horizontal Illumination

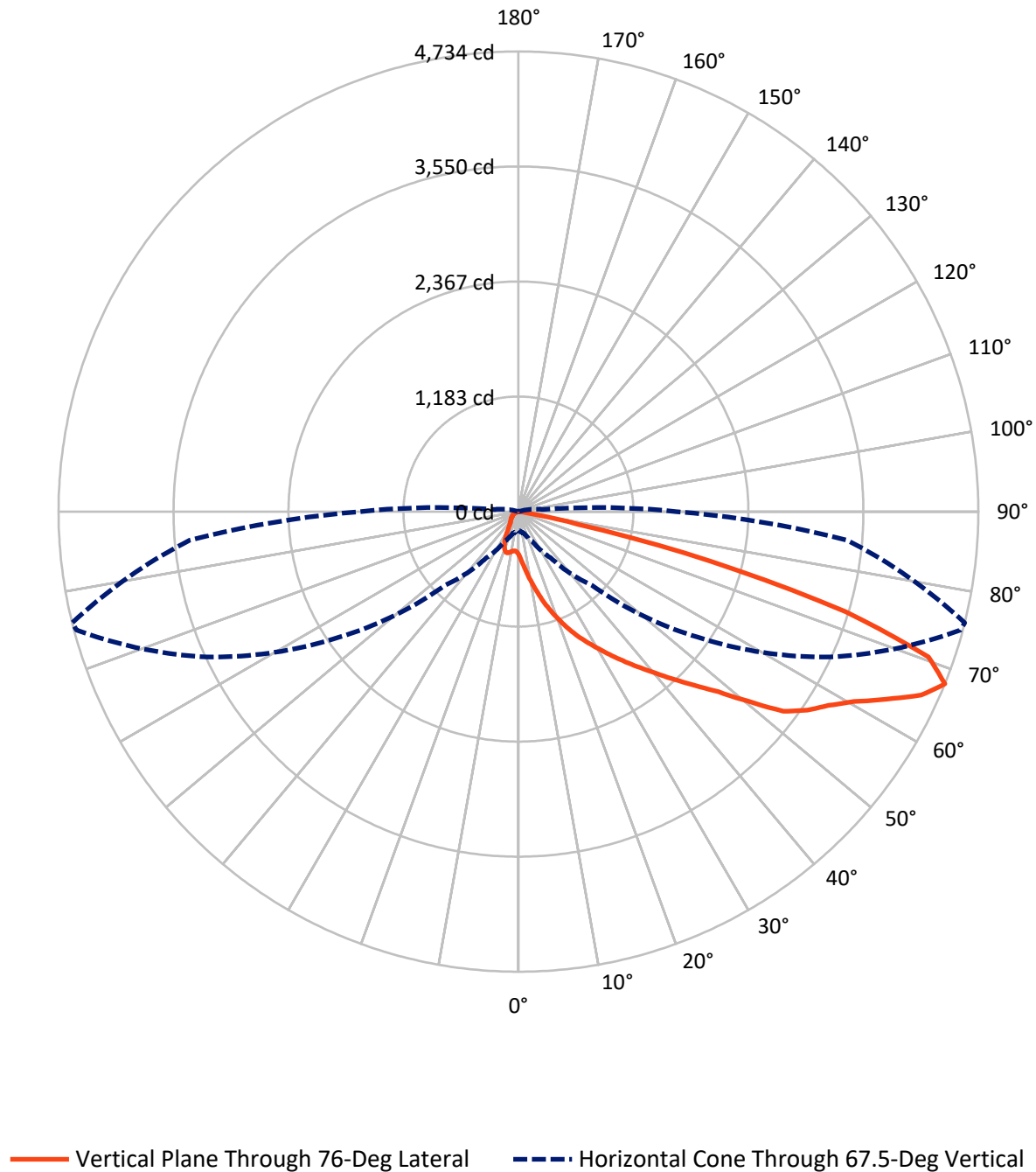
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.5 fc
 Type II - Medium - N/A

REPORT NUMBER: P321455
CATALOG NUMBER: GLEON-SA1D-830-U-T2R-HSS

Luminous Intensity Polar Plot



REPORT NUMBER: P321455
 CATALOG NUMBER: GLEON-SA1D-830-U-T2R-HSS

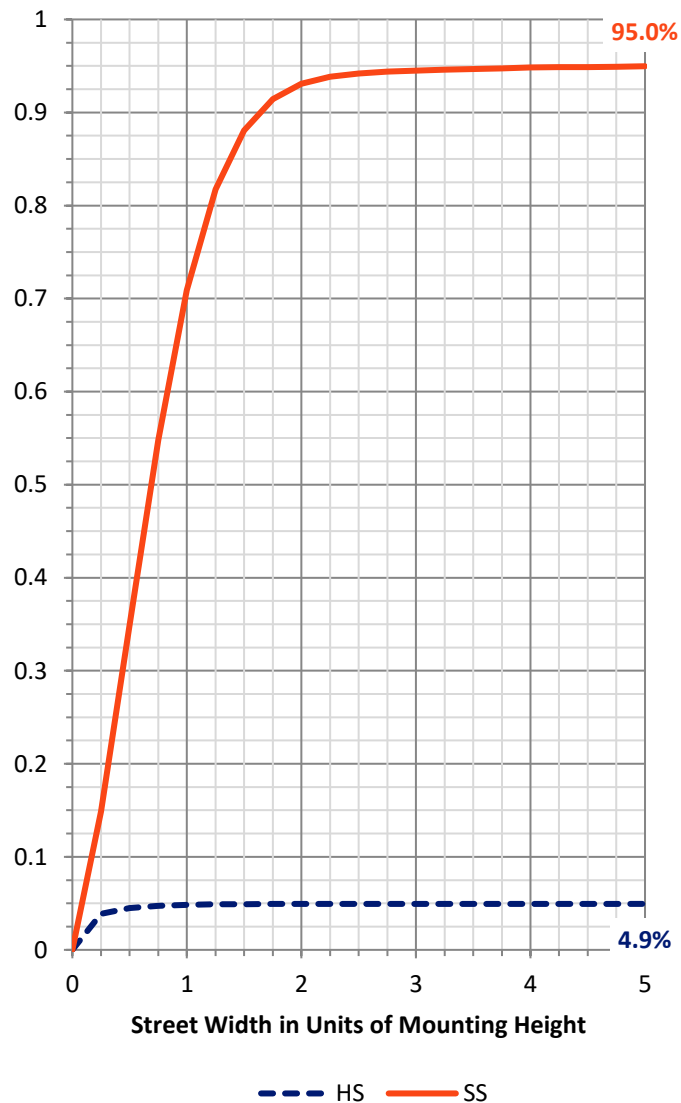
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	258.7	0.0	258.7
	% Fixture	5.0	0.0	5.0
Street Side	Lumens	4951.3	0.0	4951.3
	% Fixture	95.0	0.0	95.0
Total	Lumens	5210.0	0.0	5210.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	55.0	1.1
10°-20°	217.9	4.2
20°-30°	443.3	8.5
30°-40°	769.4	14.8
40°-50°	1087.0	20.9
50°-60°	1232.7	23.7
60°-70°	1022.4	19.6
70°-80°	370.4	7.1
80°-90°	12.0	0.2
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°	5210.0	100.0
0°-180°	5210.0	100.0

Coefficient of Utilization



REPORT NUMBER: P321455

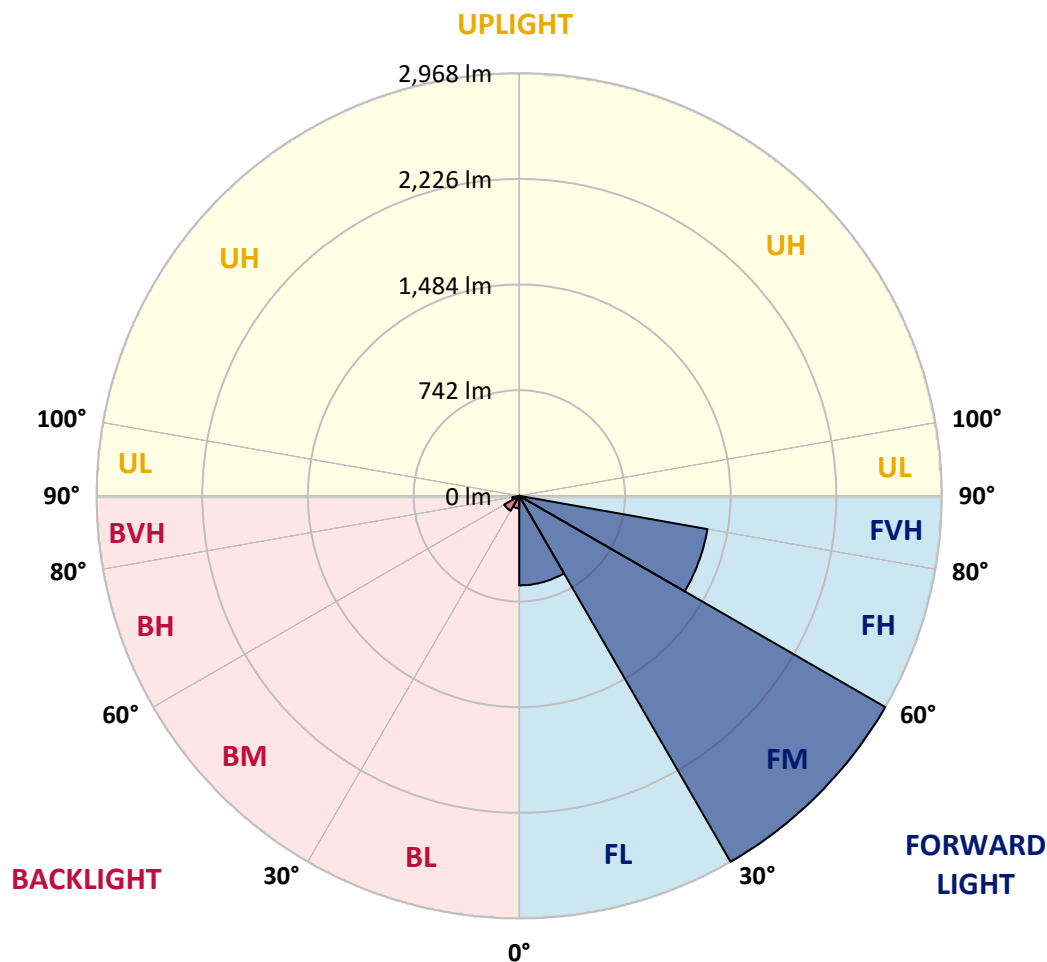
CATALOG NUMBER: GLEON-SA1D-830-U-T2R-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	628.8	12.1			
FM	(30°-60°)	2968.0	57.0			
FH	(60°-80°)	1342.8	25.8			G1/1800
FVH	(80°-90°)	11.6	0.2			G1/100
BL	(0°-30°)	87.3	1.7	B0/110		
BM	(30°-60°)	121.1	2.3	B0/220		
BH	(60°-80°)	50.0	1.0	B0/110		G0/110
BVH	(80°-90°)	0.4	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 II Medium



REPORT NUMBER: P321455

CATALOG NUMBER: GLEON-SA1D-830-U-T2R-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	76°	85°
0°	442.0	442.0	442.0	442.0	442.0	442.0	442.0	442.0	442.0	442.0	442.0
2.5°	659.7	644.9	648.3	638.7	621.4	585.8	555.4	526.7	493.1	492.0	464.3
5°	889.6	877.1	875.5	856.1	824.6	764.1	705.2	638.1	563.2	557.7	499.0
7.5°	1098.3	1088.2	1084.6	1061.5	1002.9	944.0	867.3	768.6	651.5	641.5	545.8
10°	1258.5	1253.7	1254.7	1238.2	1188.0	1133.2	1032.5	906.7	751.7	736.2	602.0
12.5°	1380.0	1381.1	1389.3	1379.3	1351.2	1310.6	1203.1	1054.0	862.7	841.5	666.1
15°	1469.2	1474.9	1490.0	1502.6	1500.5	1465.4	1366.7	1203.5	980.5	957.0	737.6
17.5°	1527.0	1533.4	1555.3	1583.2	1608.7	1600.5	1524.7	1347.8	1099.6	1072.5	814.1
20°	1577.7	1585.2	1608.7	1645.5	1693.2	1703.5	1653.7	1487.7	1218.6	1185.5	893.0
22.5°	1687.5	1687.3	1701.6	1723.1	1768.5	1795.0	1763.5	1617.6	1336.1	1301.7	973.6
25°	1886.1	1878.6	1873.5	1856.6	1866.7	1883.1	1865.5	1739.1	1454.4	1419.5	1055.4
27.5°	2122.1	2126.7	2086.1	2040.6	2005.5	1988.6	1959.8	1851.6	1568.1	1529.7	1135.3
30°	2371.2	2372.6	2324.6	2266.6	2189.2	2125.1	2075.3	1959.1	1685.0	1643.2	1212.9
32.5°	2595.8	2586.9	2539.4	2460.5	2362.7	2290.6	2187.2	2079.2	1808.7	1768.3	1299.2
35°	2773.9	2763.4	2705.6	2633.7	2532.4	2459.8	2335.4	2199.1	1938.8	1899.3	1385.7
37.5°	2904.0	2891.7	2832.3	2758.4	2670.9	2628.7	2507.2	2329.4	2080.8	2038.4	1476.8
40°	2949.2	2938.5	2901.3	2847.2	2776.9	2767.3	2689.6	2479.4	2235.4	2190.2	1580.0
42.5°	2922.3	2911.8	2898.5	2880.3	2851.0	2860.2	2861.8	2650.4	2407.0	2362.5	1693.9
45°	2815.4	2806.1	2819.8	2846.5	2882.8	2928.0	3018.8	2834.2	2598.8	2551.3	1825.6
47.5°	2658.1	2651.3	2689.2	2755.9	2862.0	2986.6	3162.4	3027.3	2814.1	2770.0	1990.0
50°	2434.4	2433.3	2509.1	2630.8	2794.0	3015.0	3310.8	3246.9	3113.1	3066.8	2218.5
52.5°	2086.1	2088.3	2237.4	2432.1	2674.6	2995.8	3406.2	3529.1	3461.0	3412.9	2416.4
55°	1754.4	1768.1	1873.8	2154.5	2491.5	2924.6	3439.1	3660.8	3653.0	3607.4	2526.4
57.5°	1429.5	1454.4	1556.2	1818.5	2224.2	2760.4	3421.1	3717.8	3795.9	3761.0	2671.6
60°	1077.5	1088.9	1206.3	1451.4	1881.1	2460.9	3290.3	3748.9	3991.3	3967.1	2882.3
62.5°	685.5	714.1	818.2	1054.7	1464.7	2045.0	3069.7	3748.4	4235.8	4249.1	3154.2
65°	361.1	394.5	449.7	653.6	1006.5	1580.4	2738.0	3713.3	4535.8	4554.3	3366.7
67.5°	194.7	204.3	233.5	339.2	583.7	1070.7	2250.7	3539.8	4709.5	4733.9	3396.4
70°	142.4	147.7	158.7	187.6	293.8	621.8	1642.3	3146.4	4485.6	4476.4	3017.7
72.5°	109.3	117.6	125.8	137.4	168.9	331.9	1022.5	2463.9	3579.0	3518.8	2255.7
75°	86.3	87.7	99.3	109.8	126.7	189.0	454.1	1435.0	2184.5	2041.8	1169.7
77.5°	68.9	69.9	76.7	85.8	101.8	124.2	140.6	564.5	697.4	622.3	253.9
80°	40.9	43.1	57.1	66.2	84.5	78.3	51.4	122.6	108.9	98.6	42.7
82.5°	22.8	24.7	32.2	52.3	58.9	37.4	25.6	33.1	25.6	24.9	12.1
85°	0.0	1.1	20.8	32.4	24.0	8.2	10.7	11.0	7.5	7.1	4.8
87.5°	0.0	0.0	6.4	6.2	0.9	1.4	2.5	3.7	3.0	3.0	2.5
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: P321455

CATALOG NUMBER: GLEON-SA1D-830-U-T2R-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	442.0	442.0	442.0	442.0	442.0	442.0	442.0	442.0	442.0	442.0	442.0
2.5°	450.6	438.3	415.0	392.2	373.0	357.3	343.1	337.4	332.8	332.2	328.5
5°	470.7	445.8	401.3	364.8	340.4	323.0	308.2	299.1	292.0	289.2	286.7
7.5°	501.1	463.4	399.5	357.5	328.3	299.1	271.7	242.0	223.5	216.4	212.3
10°	538.1	486.7	406.3	355.4	304.3	242.7	197.2	159.6	144.3	139.3	137.9
12.5°	581.2	515.7	418.2	342.7	253.2	172.4	136.1	123.3	119.8	118.3	118.3
15°	630.8	547.4	426.7	305.7	187.2	130.4	117.8	111.9	108.2	106.2	106.4
17.5°	681.4	578.5	422.6	252.0	138.1	116.0	106.6	100.2	95.2	93.1	92.7
20°	732.6	607.2	399.7	187.6	116.9	105.2	94.7	87.7	82.6	80.6	80.1
22.5°	785.5	631.7	359.5	137.7	105.0	93.4	83.1	76.0	71.2	69.4	68.5
25°	837.1	651.5	303.4	111.4	93.8	82.2	72.4	65.7	61.4	59.6	59.4
27.5°	885.3	664.1	238.3	98.4	84.0	72.1	63.2	57.3	53.6	52.3	52.0
30°	928.7	665.2	176.2	88.8	75.3	63.5	55.2	50.0	46.8	45.4	45.0
32.5°	972.5	655.6	128.3	80.1	67.3	55.9	47.9	43.8	41.5	40.4	40.4
35°	1013.8	633.5	100.0	72.6	59.6	48.6	42.2	39.3	37.9	36.8	36.8
37.5°	1054.2	601.8	84.9	66.0	52.3	42.5	37.2	35.4	34.2	33.1	33.1
40°	1095.3	561.8	77.2	59.8	46.3	37.7	33.1	31.5	30.4	29.4	29.2
42.5°	1145.8	515.7	72.1	54.1	41.1	33.3	29.2	27.4	26.5	25.6	25.1
45°	1204.2	476.0	68.0	48.4	36.8	29.7	25.3	23.5	22.1	21.0	20.8
47.5°	1288.4	447.2	62.5	42.2	32.6	25.8	21.9	19.9	17.8	16.7	16.4
50°	1396.0	423.5	55.5	36.8	28.5	21.9	18.3	15.8	13.9	12.8	12.8
52.5°	1449.4	392.4	49.1	32.0	24.0	18.5	14.8	11.9	11.0	9.8	9.8
55°	1470.8	368.7	42.7	27.2	19.9	15.3	11.6	9.1	8.4	7.8	7.5
57.5°	1531.1	361.8	37.2	23.1	16.4	12.1	8.9	6.8	6.4	5.5	5.5
60°	1628.1	365.3	32.2	19.6	13.2	9.4	6.6	5.3	4.8	3.9	3.9
62.5°	1732.9	360.9	27.2	16.9	10.3	6.8	4.6	3.9	3.9	2.3	2.1
65°	1753.0	321.4	23.3	13.9	8.0	5.0	3.0	2.5	3.4	0.5	0.0
67.5°	1627.0	249.3	20.1	10.7	5.9	3.9	2.3	1.1	3.0	0.0	0.0
70°	1301.0	158.4	16.2	7.8	4.6	3.2	1.8	0.5	2.3	0.0	0.0
72.5°	920.0	92.0	12.8	5.5	3.9	2.5	1.4	0.0	1.4	0.0	0.0
75°	465.2	49.1	8.0	4.1	3.0	1.8	0.9	0.0	0.2	0.0	0.0
77.5°	100.7	22.8	5.0	3.0	2.1	1.1	0.5	0.0	0.0	0.0	0.0
80°	21.9	10.0	3.2	1.8	1.1	0.7	0.0	0.0	0.0	0.0	0.0
82.5°	8.0	5.3	1.6	0.9	0.5	0.0	0.0	0.0	0.0	0.0	0.0
85°	4.3	2.7	0.9	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	2.3	0.9	0.2	0.2	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

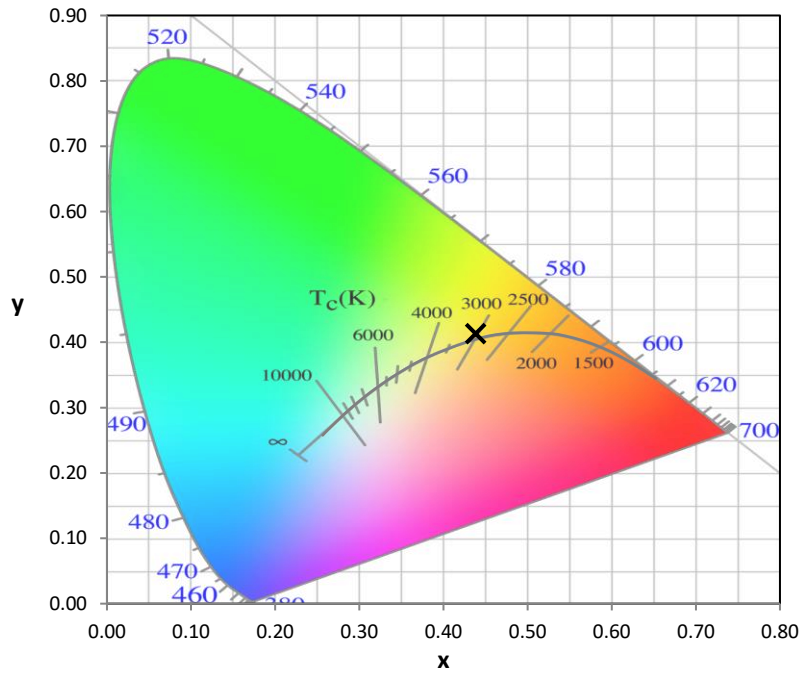
Stabilization Time: 20M
 Operation Time: 1H 20M
 Sphere Temperature (°C): 24.2

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

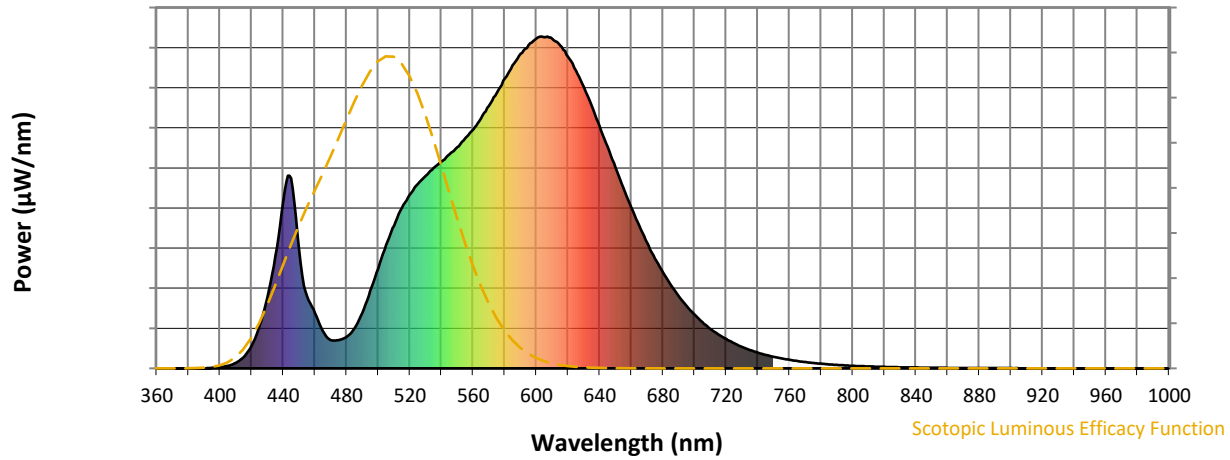


Photopic Lumens: NR

λ (nm)	Power W/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			

REPORT NUMBER: SP1-2408-195-9

Scotopic Flux vs. Wavelength



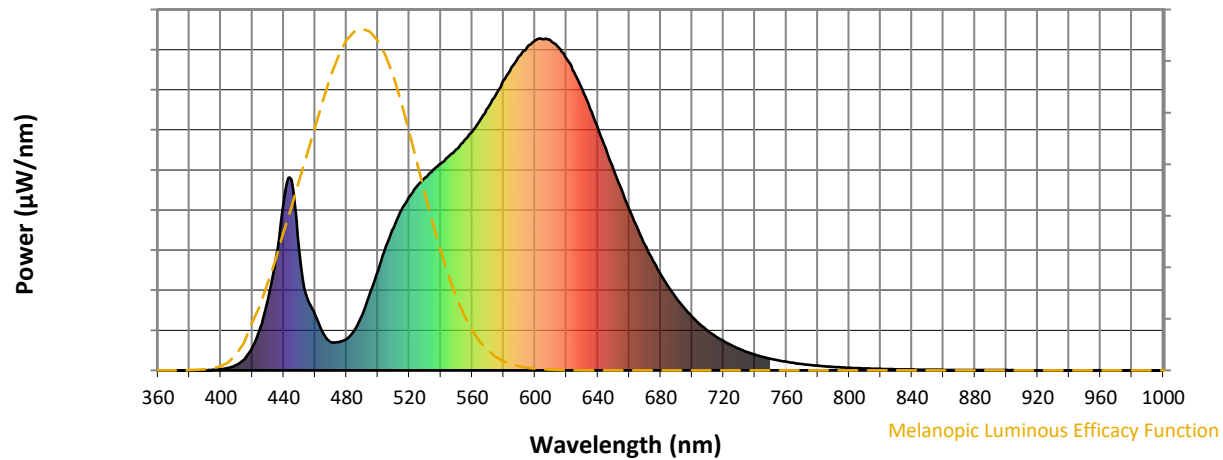
Scotopic Lumens: NR

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

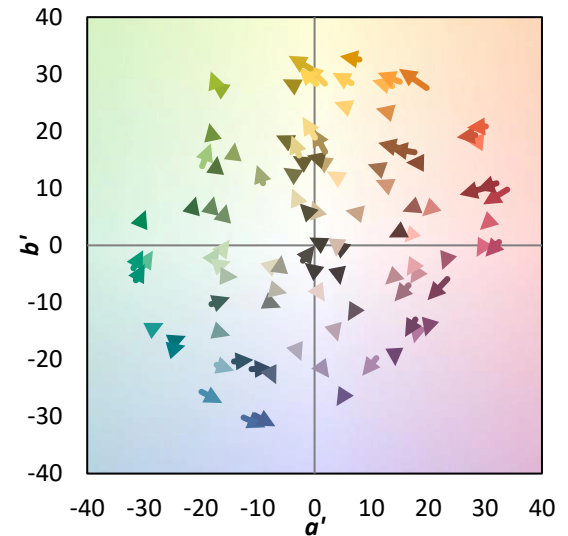
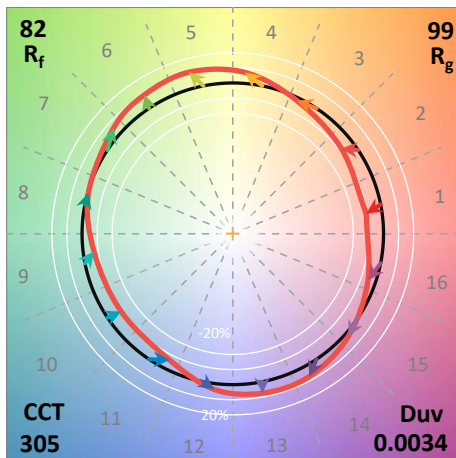
TM-30-18

Summary

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

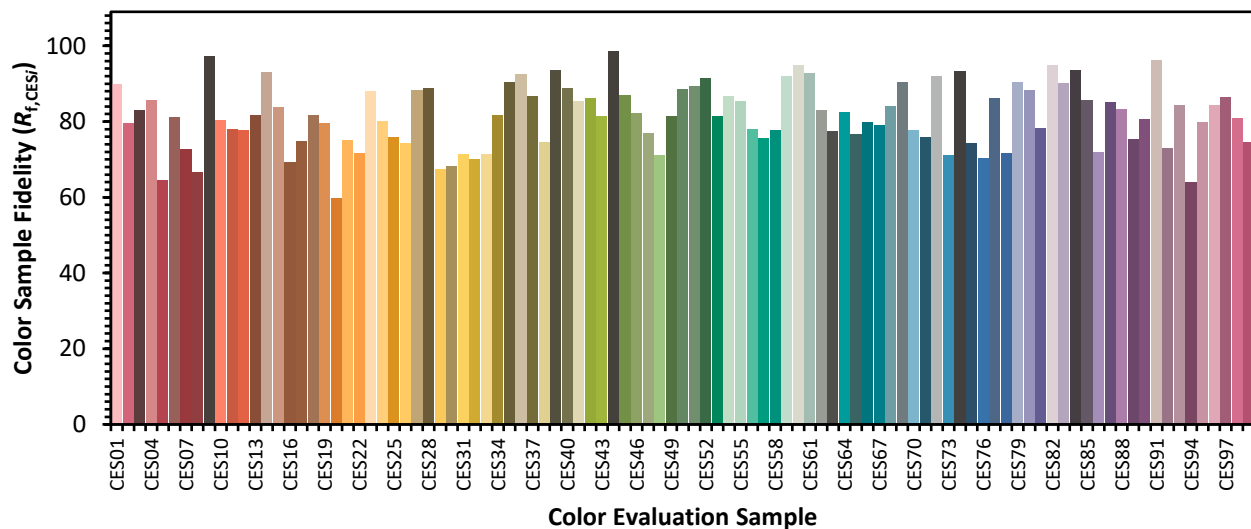


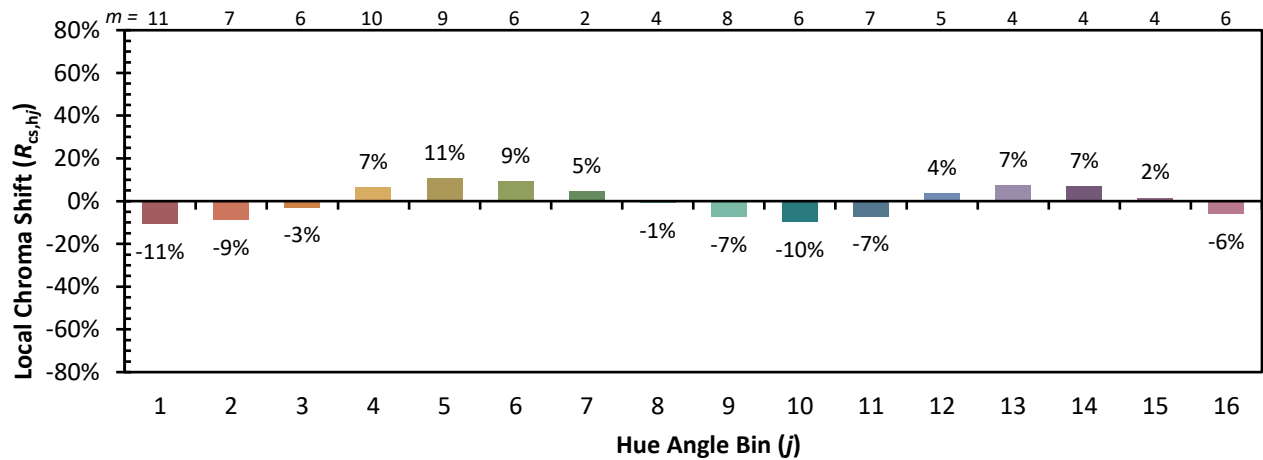
Color Vector Graphics

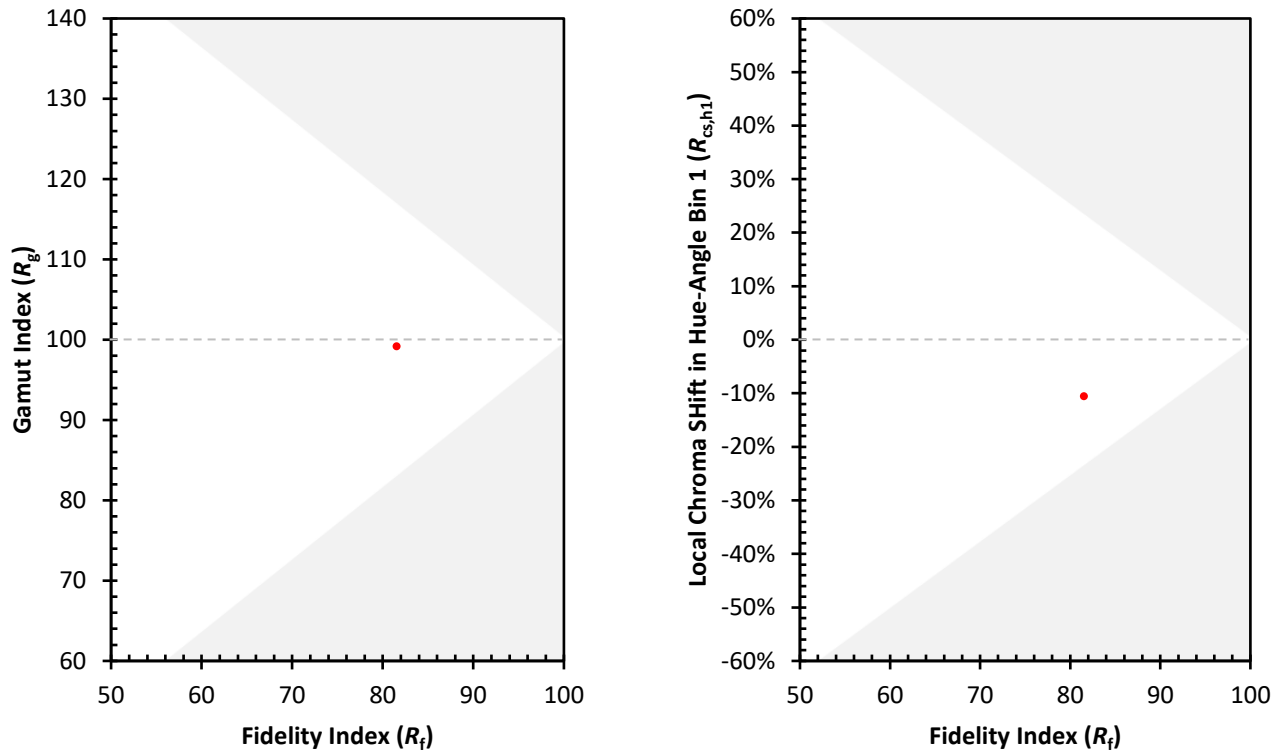


Individual Sample Fidelity Index ($R_{f,i}$)

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)