

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: P318903

Luminaire Tested: **GLEON-SA9D-830-U-T4FT**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P318903
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-16)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: GLEON-SA9D-830-U-T4FT
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(9) 80 CRI, 3000K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV
FORWARD THROW OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 55453 lumens
Efficiency: N/A
Efficacy: 96.4 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B4 - U0 - G5

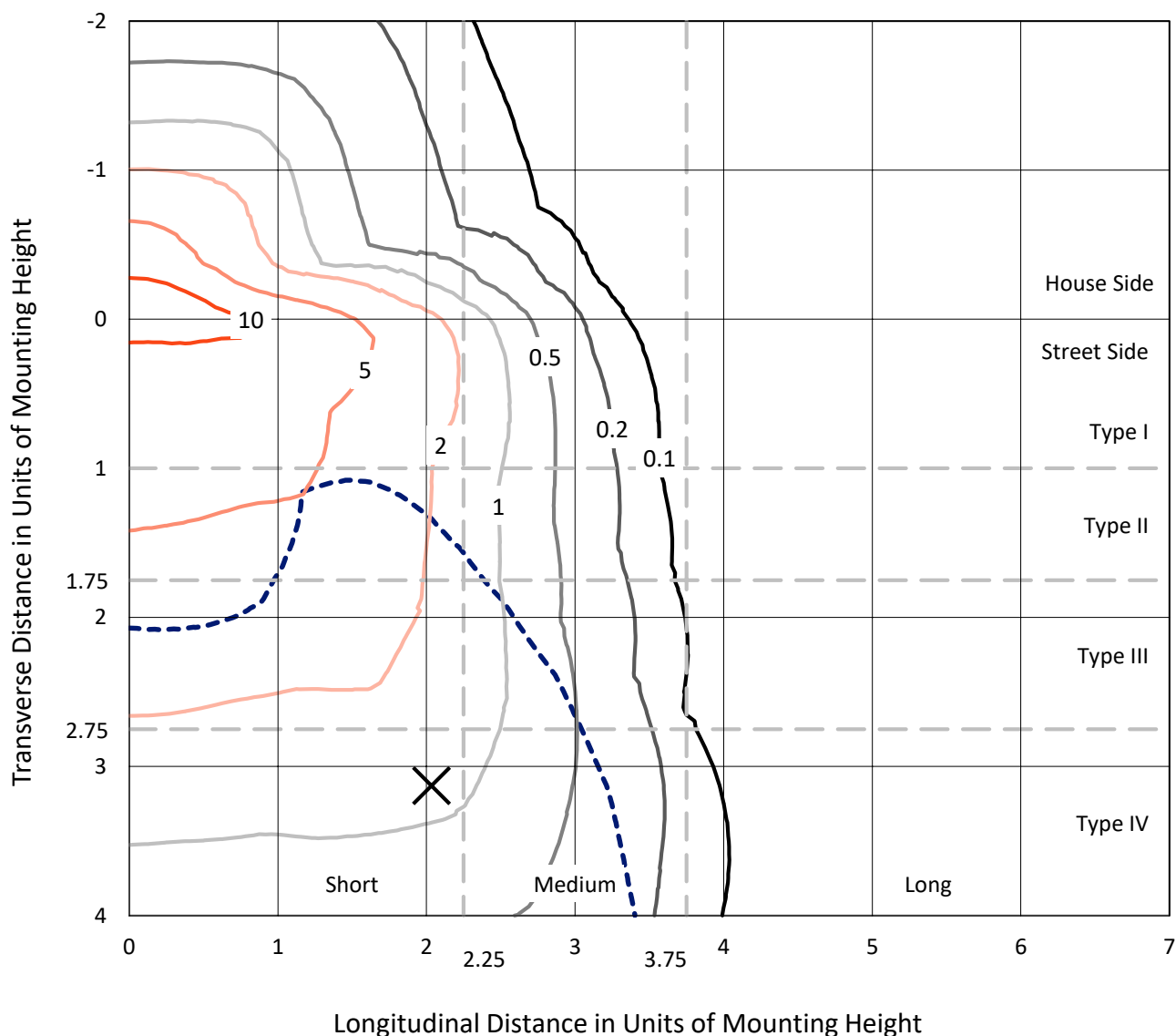
Input Watts (W): 575
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P318903
 CATALOG NUMBER: GLEON-SA9D-830-U-T4FT

Iso-Footcandle Lines of Horizontal Illumination

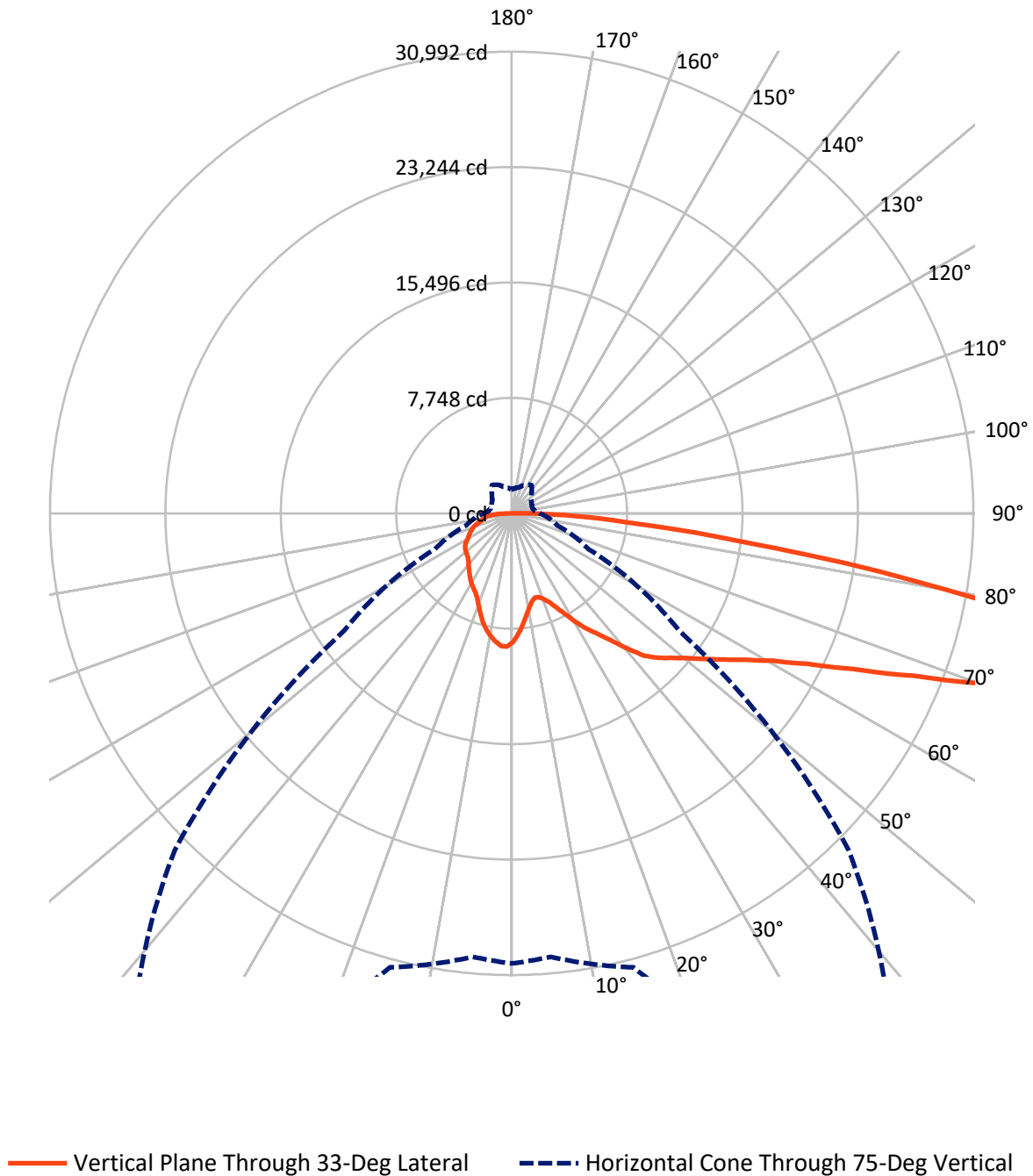
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 13.9 fc
 Type IV - Short - N/A

REPORT NUMBER: P318903
CATALOG NUMBER: GLEON-SA9D-830-U-T4FT

Luminous Intensity Polar Plot



REPORT NUMBER: P318903

CATALOG NUMBER: GLEON-SA9D-830-U-T4FT

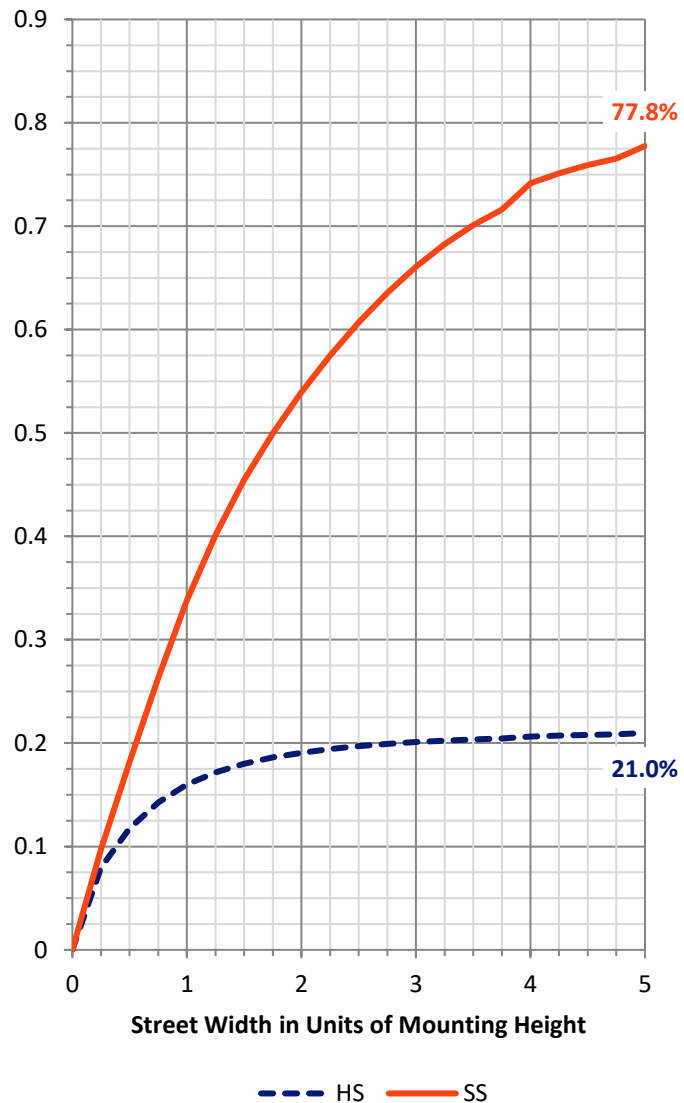
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	11907.2	0.0	11907.2
	% Fixture	21.5	0.0	21.5
Street Side	Lumens	43545.8	0.0	43545.8
	% Fixture	78.5	0.0	78.5
Total	Lumens	55453.0	0.0	55453.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	783.9	1.4
10°-20°	2123.1	3.8
20°-30°	3467.3	6.3
30°-40°	5163.6	9.3
40°-50°	7406.0	13.4
50°-60°	10167.3	18.3
60°-70°	12729.0	23.0
70°-80°	11515.3	20.8
80°-90°	2097.6	3.8
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°	55453.0	100.0
0°-180°	55453.0	100.0

Coefficient of Utilization



REPORT NUMBER: P318903

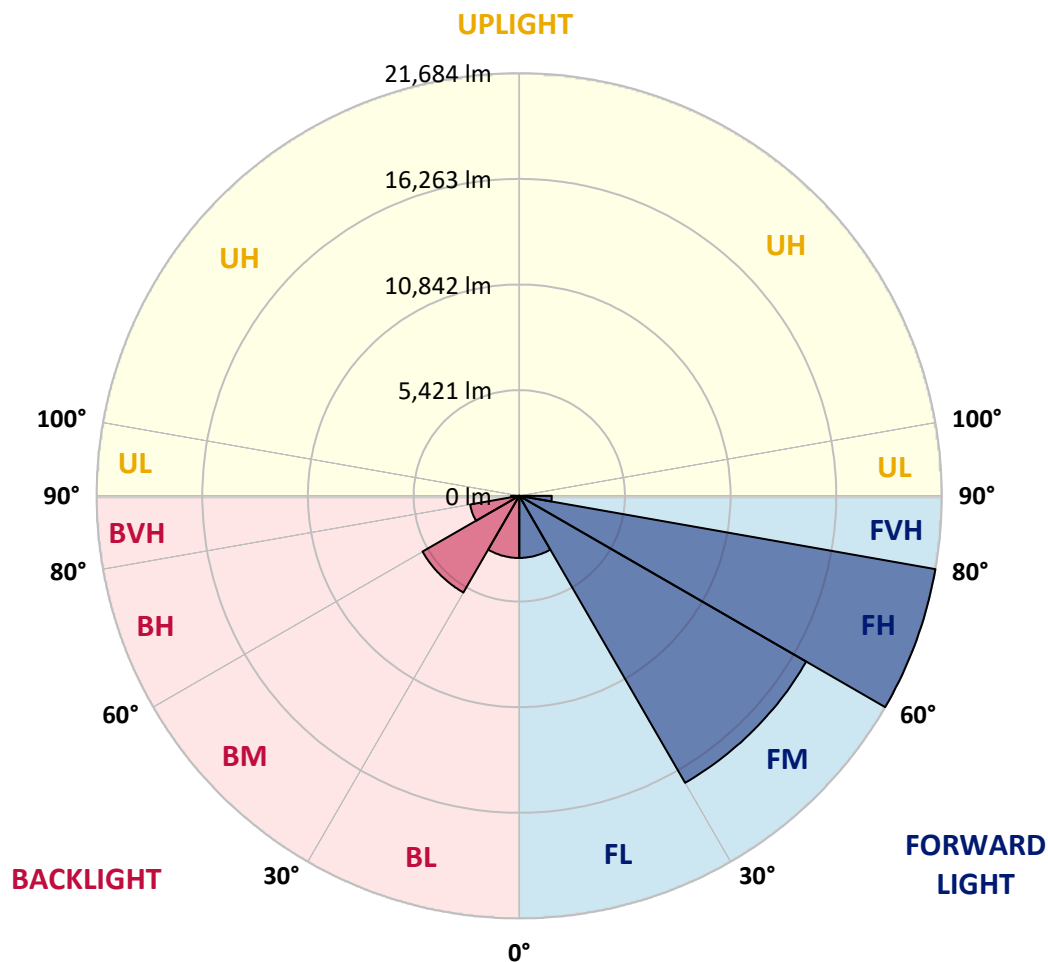
CATALOG NUMBER: GLEON-SA9D-830-U-T4FT

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3184.9	5.7			
FM	(30°-60°)	17006.3	30.7			
FH	(60°-80°)	21684.0	39.1			G5
FVH	(80°-90°)	1670.5	3.0			G5
BL	(0°-30°)	3189.3	5.8	B4/5000		
BM	(30°-60°)	5730.6	10.3	B4/8500		
BH	(60°-80°)	2560.3	4.6	B4/5000		G4/5000
BVH	(80°-90°)	427.0	0.8			G3/500
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G5

Type IV Short





REPORT NUMBER: P318903

CATALOG NUMBER: GLEON-SA9D-830-U-T4FT

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	33°	35°	45°	55°	65°	75°	85°
0°	8667.6	8667.6	8667.6	8667.6	8667.6	8667.6	8667.6	8667.6	8667.6	8667.6	8667.6
2.5°	8048.9	8018.3	8075.7	8083.4	8133.2	8152.3	8221.3	8328.6	8416.7	8518.2	8610.1
5°	7319.1	7298.0	7378.5	7436.0	7545.1	7591.1	7753.9	7981.9	8184.9	8414.8	8623.6
7.5°	6625.7	6614.2	6704.2	6834.5	6960.9	7024.1	7305.7	7637.1	7976.1	8347.7	8667.6
10°	6041.5	6037.6	6123.8	6252.2	6438.0	6508.9	6872.8	7309.5	7784.6	8296.0	8742.3
12.5°	5713.9	5727.3	5767.6	5874.8	6047.2	6118.1	6522.3	7035.6	7623.7	8278.8	8851.5
15°	5794.4	5815.4	5746.5	5742.7	5865.2	5920.8	6300.1	6840.2	7508.7	8307.5	9010.5
17.5°	6137.2	6141.1	5959.1	5844.2	5918.9	5947.6	6231.1	6729.1	7441.7	8372.6	9209.7
20°	6620.0	6610.4	6288.6	6097.0	6137.2	6144.9	6328.8	6731.0	7436.0	8485.6	9468.3
22.5°	7259.7	7188.9	6756.0	6495.4	6485.9	6474.4	6579.7	6872.8	7520.2	8669.5	9776.7
25°	8094.9	8027.8	7432.1	7075.8	6999.2	6970.5	6985.8	7175.4	7686.9	8866.8	10121.5
27.5°	9023.9	8907.1	8332.4	7828.6	7669.6	7629.4	7537.5	7602.6	7868.9	9056.5	10531.4
30°	9801.6	9738.4	9236.5	8638.9	8451.2	8393.7	8152.3	8081.5	8131.3	9315.1	11048.6
32.5°	10236.4	10194.3	9889.7	9407.0	9232.7	9152.2	8811.3	8669.5	8552.7	9723.1	11749.6
35°	10763.2	10736.3	10552.5	10201.9	9943.3	9859.1	9594.7	9447.2	9146.5	10284.3	12655.7
37.5°	11433.6	11404.9	11408.7	11125.2	10816.8	10738.3	10564.0	10408.8	9916.5	11021.8	13640.2
40°	12192.1	12136.6	12115.5	12102.1	11906.7	11862.7	11770.7	11560.0	10881.9	11902.9	14611.4
42.5°	13333.8	13136.5	12715.1	12874.0	13067.5	13044.5	13119.2	12816.6	11954.6	12944.9	15559.6
45°	14435.2	14111.5	13383.6	13418.0	13841.4	13969.7	14529.0	14314.5	13117.3	14086.6	16540.3
47.5°	14937.0	14691.8	14073.1	14075.1	14494.6	14760.8	15986.7	15833.5	14339.4	15383.3	17737.5
50°	15498.3	15253.1	14697.6	14906.4	15272.2	15555.7	17394.6	17316.1	15502.1	16802.7	19172.2
52.5°	16111.2	15695.6	15343.1	15716.6	16230.0	16559.5	18804.4	18589.9	16569.0	18231.7	20821.4
55°	16118.9	16005.9	16274.0	16548.0	17316.1	17720.2	20281.3	19714.3	17438.7	19635.7	22164.2
57.5°	17036.4	16852.5	17421.4	17547.8	18551.6	19007.5	21750.4	20693.1	18323.6	20712.2	22888.2
60°	18250.8	18093.8	18559.2	18892.5	20080.1	20689.3	23319.2	21698.7	19018.9	21524.4	22853.8
62.5°	20348.3	20170.2	20164.4	20631.8	22231.2	22940.0	25079.6	22685.2	19294.8	21685.3	21878.8
65°	23418.8	23135.3	22600.9	22823.1	25202.2	25909.0	27046.8	23399.7	18930.8	20823.3	19367.6
67.5°	26407.0	26397.4	25740.4	26196.3	29125.1	29692.1	29287.9	23470.6	17794.9	17821.8	14912.1
70°	29385.6	29423.9	29312.8	30898.8	34425.3	35015.2	31674.6	22518.6	15241.6	12870.2	8933.9
72.5°	31745.5	31735.9	32295.2	36384.8	41303.8	41171.6	33685.9	19633.8	10943.2	6947.5	4269.6
75°	30216.9	29883.6	31550.1	39101.0	45312.9	44667.4	31975.4	13695.8	5679.4	3162.5	2298.6
77.5°	19708.5	20024.6	22470.7	32301.0	39635.4	38850.1	23459.1	6390.1	2675.9	2074.5	1666.5
80°	7137.1	7470.4	10521.8	18296.8	27307.3	27179.0	11552.4	2626.1	1810.1	1566.9	1214.4
82.5°	2455.7	2578.3	4150.9	8125.5	15417.8	15992.5	4346.3	1492.2	1315.9	1111.0	831.3
85°	963.5	1103.3	1898.3	3909.5	7776.9	7834.4	1760.3	892.6	915.6	727.9	455.9
87.5°	365.9	444.4	907.9	1815.9	3551.3	3262.1	630.2	425.2	521.0	432.9	216.5
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: P318903

CATALOG NUMBER: GLEON-SA9D-830-U-T4FT

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	8667.6	8667.6	8667.6	8667.6	8667.6	8667.6	8667.6	8667.6	8667.6	8667.6	8667.6
2.5°	8681.0	8721.2	8805.5	8863.0	8924.3	8941.5	8949.2	8964.5	8979.8	8974.1	8976.0
5°	8734.7	8813.2	8949.2	9006.7	9033.5	9002.8	8943.4	8895.6	8861.1	8841.9	8836.2
7.5°	8822.8	8933.9	9079.4	9069.9	9008.6	8872.6	8719.3	8604.4	8508.6	8474.1	8455.0
10°	8939.6	9069.9	9171.4	9062.2	8884.1	8648.5	8418.6	8240.5	8096.8	8041.2	8031.7
12.5°	9089.0	9221.2	9240.3	9008.6	8713.6	8391.8	8079.6	7844.0	7629.4	7560.5	7545.1
15°	9282.5	9407.0	9288.2	8914.7	8502.9	8070.0	7665.8	7345.9	7119.9	7035.6	7005.0
17.5°	9485.5	9604.3	9297.8	8759.6	8227.1	7688.8	7181.2	6853.6	6595.0	6497.4	6485.9
20°	9728.8	9782.4	9257.6	8537.4	7847.8	7194.6	6660.2	6351.8	6213.9	6144.9	6137.2
22.5°	10029.5	9972.1	9165.6	8236.6	7367.0	6623.8	6189.0	6045.3	6010.8	5995.5	6001.2
25°	10347.5	10171.3	9029.6	7844.0	6759.8	6053.0	5844.2	5884.4	5930.4	5924.6	5924.6
27.5°	10698.0	10374.3	8820.9	7322.9	6087.4	5585.6	5610.5	5758.0	5826.9	5825.0	5823.1
30°	11148.2	10604.2	8554.6	6696.6	5459.2	5256.1	5407.4	5587.5	5681.4	5677.5	5679.4
32.5°	11701.8	10857.0	8192.6	5997.4	5005.2	5012.9	5187.2	5365.3	5474.5	5464.9	5466.8
35°	12349.2	11140.5	7702.2	5307.8	4704.5	4819.4	4957.3	5081.8	5185.2	5171.8	5158.4
37.5°	13054.1	11418.3	7050.9	4691.0	4459.3	4639.3	4754.3	4775.3	4823.2	4788.7	4763.8
40°	13724.5	11630.9	6212.0	4185.4	4212.2	4486.1	4560.8	4476.5	4390.3	4378.8	4344.3
42.5°	14308.7	11701.8	5363.4	3781.2	3951.7	4325.2	4371.2	4194.9	4039.8	3967.0	3936.3
45°	14925.5	11726.7	4572.3	3442.1	3700.7	4181.5	4231.3	3995.7	3777.4	3620.3	3568.6
47.5°	15732.0	11906.7	3957.4	3191.2	3509.2	4085.8	4156.6	3836.7	3553.2	3329.1	3281.2
50°	16787.4	12263.0	3457.5	2999.7	3384.7	4022.5	4103.0	3681.6	3369.4	3099.3	3051.4
52.5°	17959.7	12590.5	3053.3	2844.5	3264.0	3911.4	4034.0	3570.5	3197.0	2886.7	2834.9
55°	18779.5	12339.6	2727.7	2683.6	3106.9	3752.5	3938.3	3476.6	2949.9	2679.8	2633.8
57.5°	18936.6	11481.5	2480.6	2517.0	2917.3	3553.2	3790.8	3267.8	2815.8	2589.7	2541.9
60°	18507.5	10286.2	2296.7	2363.7	2714.3	3302.3	3514.9	3120.3	2687.4	2494.0	2453.7
62.5°	17429.1	9062.2	2160.7	2225.8	2524.6	3047.6	3342.5	2965.2	2557.2	2384.8	2344.6
65°	15251.2	7608.3	2030.4	2103.2	2348.4	2827.3	3187.4	2821.5	2428.8	2296.7	2258.4
67.5°	11512.1	5698.6	1907.8	1973.0	2191.3	2635.7	3018.8	2679.8	2304.3	2220.1	2174.1
70°	6778.9	3568.6	1768.0	1837.0	2026.6	2436.5	2838.8	2524.6	2149.2	2110.9	2051.5
72.5°	3154.8	2147.3	1609.0	1676.1	1819.7	2170.3	2607.0	2321.6	1965.3	1881.0	1800.6
75°	1882.9	1570.7	1421.3	1480.7	1582.2	1886.8	2315.8	2114.7	1791.0	1679.9	1595.6
77.5°	1407.9	1201.0	1214.4	1277.6	1360.0	1651.2	2051.5	1951.9	1656.9	1570.7	1513.2
80°	1013.3	911.8	990.3	1059.3	1145.5	1501.7	1965.3	1804.4	1497.9	1383.0	1329.4
82.5°	676.2	655.1	745.1	816.0	900.3	1314.0	1846.5	1580.3	1279.6	1134.0	1015.2
85°	373.5	394.6	501.9	532.5	605.3	925.2	1513.2	1270.0	963.5	775.8	741.3
87.5°	155.2	182.0	270.1	260.5	321.8	551.7	996.1	766.2	613.0	457.8	356.3
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

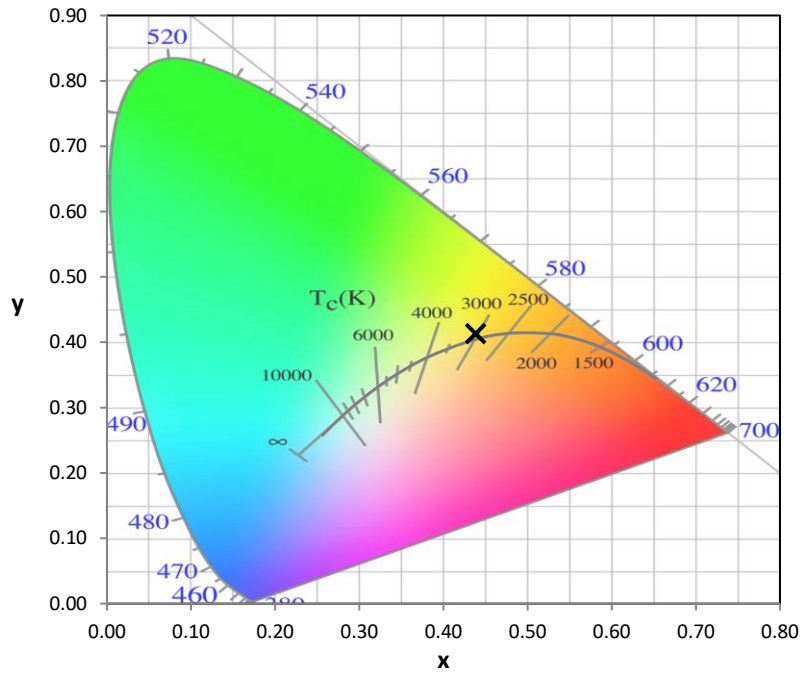
Stabilization Time: 20M
 Operation Time: 1H 20M
 Sphere Temperature (°C): 24.2

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



CCT = 3050K
 CIE x = 0.4383
 CIE y = 0.4131
 Duv = 0.0034

REPORT NUMBER: SP1-2408-195-9

Photopic Flux vs. Wavelength

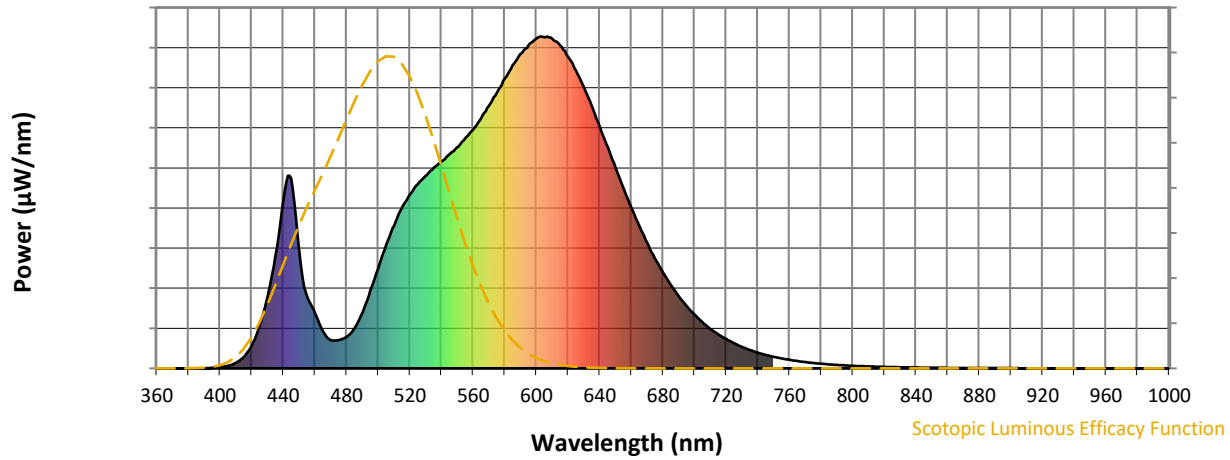


Photopic Lumens: NR

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



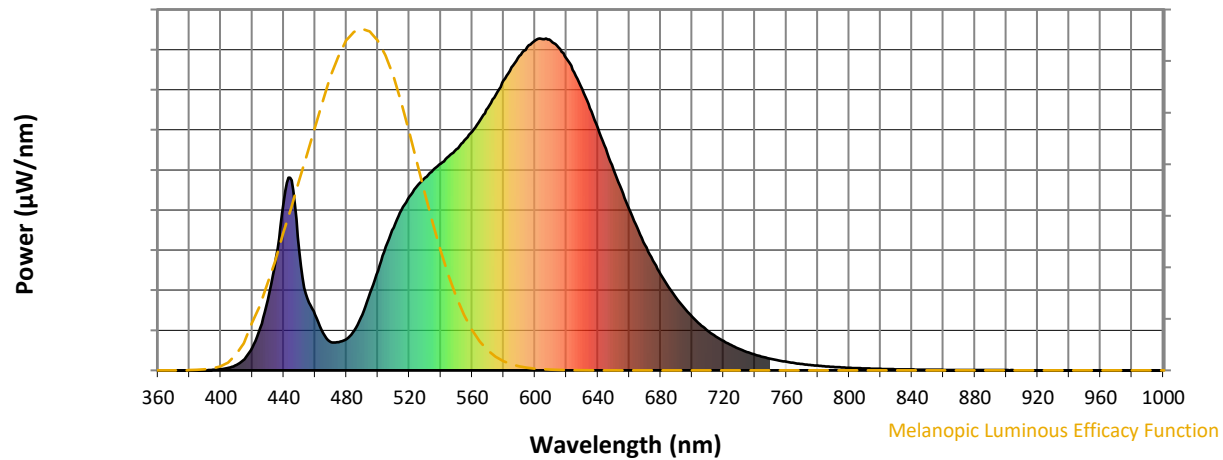
Scotopic Lumens: NR

S/P: 1.27

λ (nm)	Power $\text{W}^\wedge/\text{nm}$	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

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

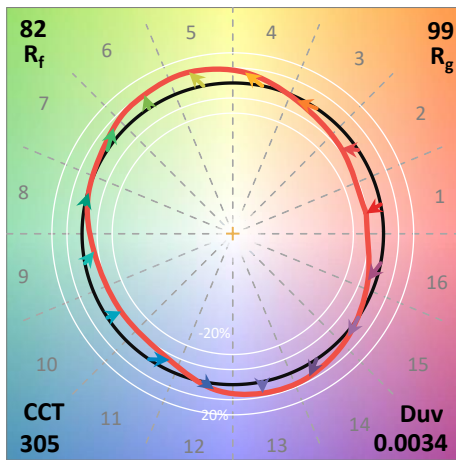
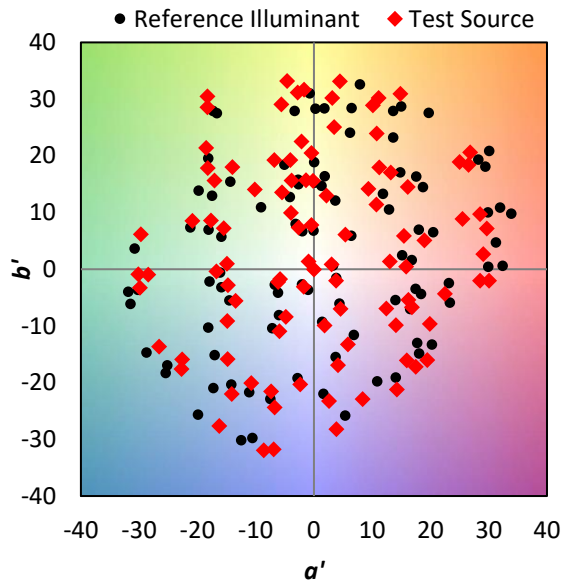
TM-30-18

Summary

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



Color Vector Graphics

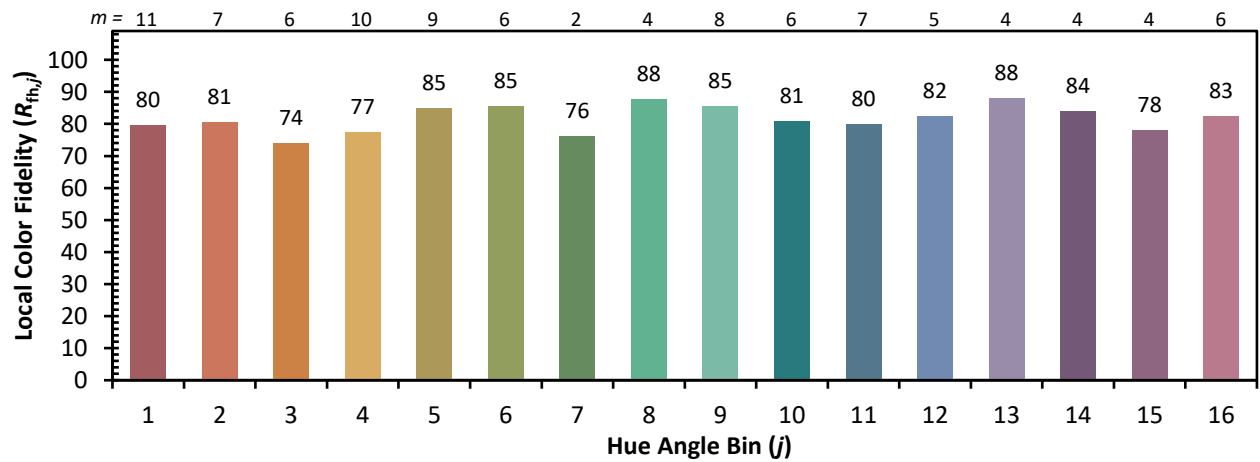
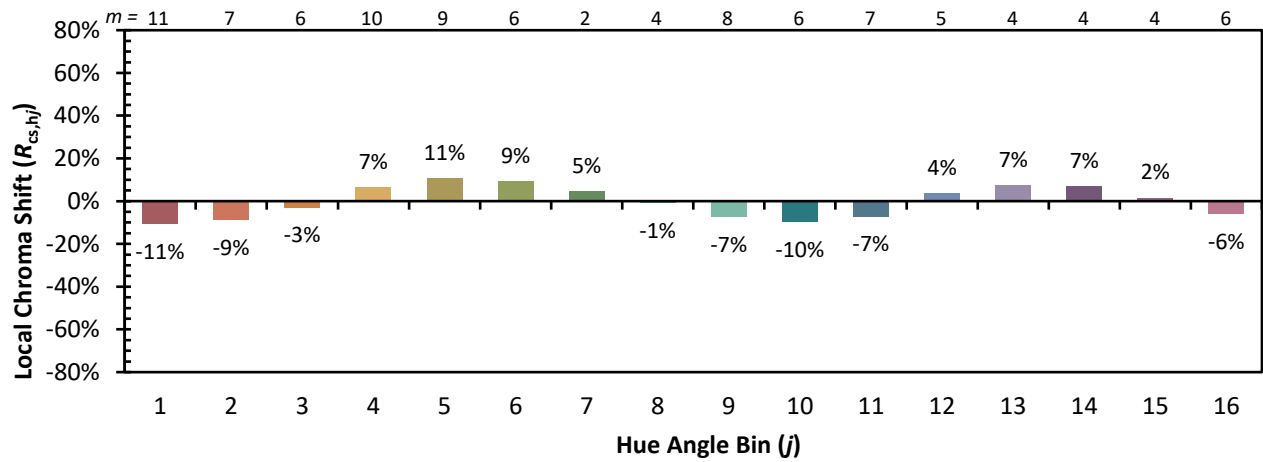


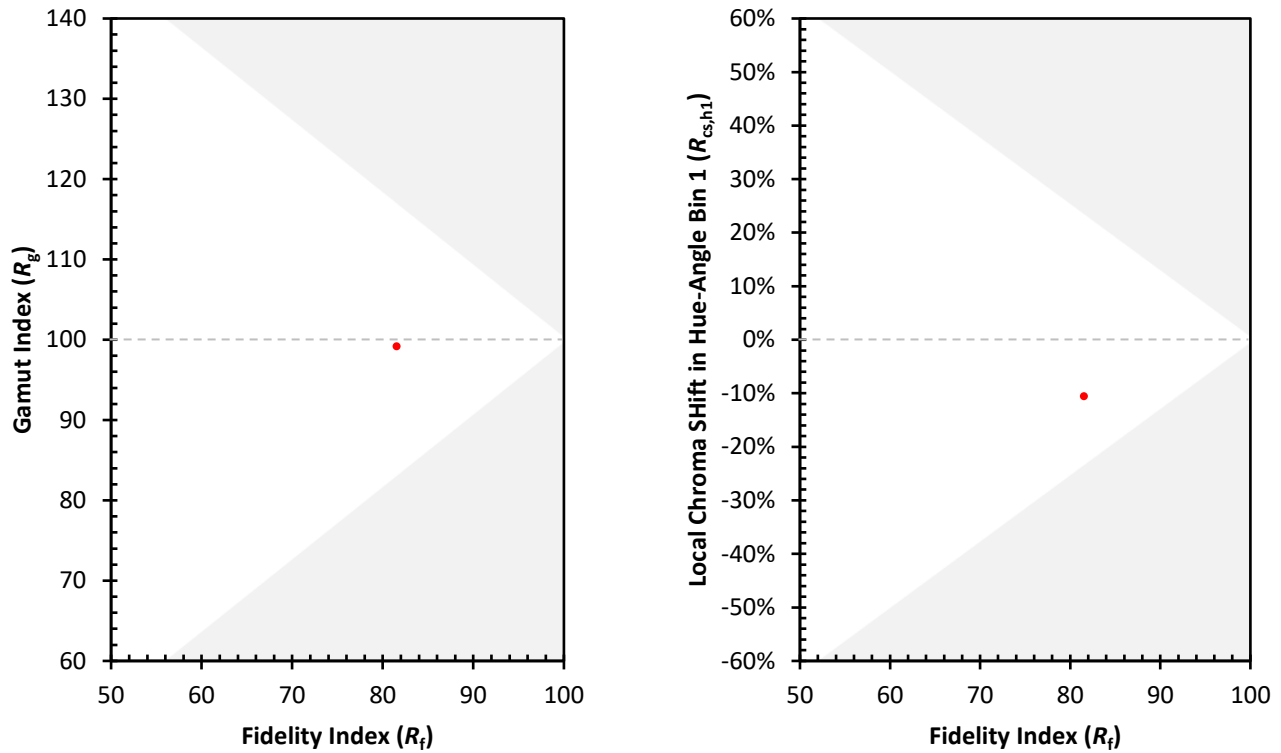
Individual Sample Fidelity Index ($R_{f,i}$)

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)