

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: P322104

Luminaire Tested: **GLEON-SA0D-830-U-T2-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P322104
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-13)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: GLEON-SA0D-830-U-T2-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(10) 80 CRI, 3000K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 43415 lumens
Efficiency: N/A
Efficacy: 67.8 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B2 - U0 - G5

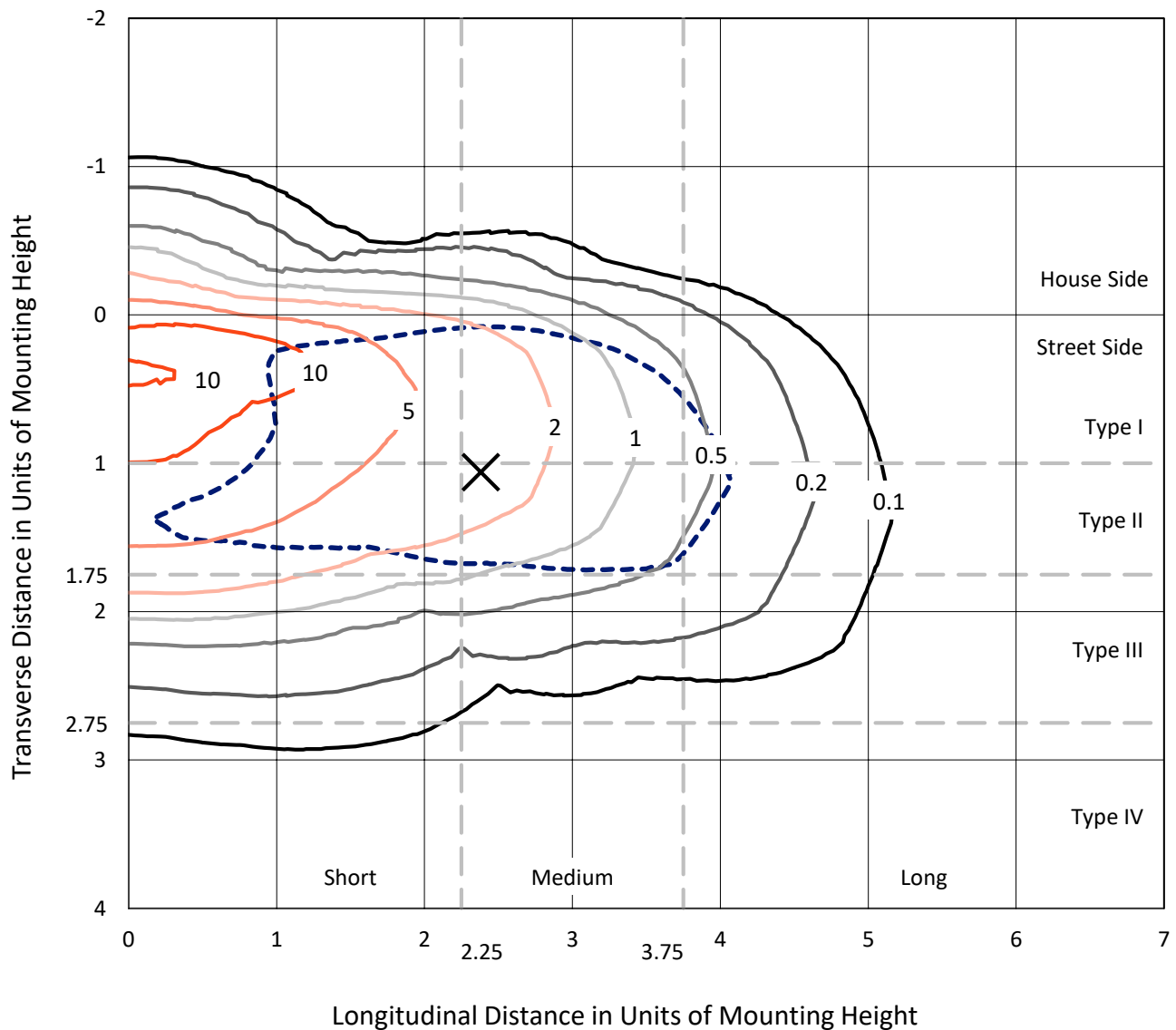
Input Watts (W): 640
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

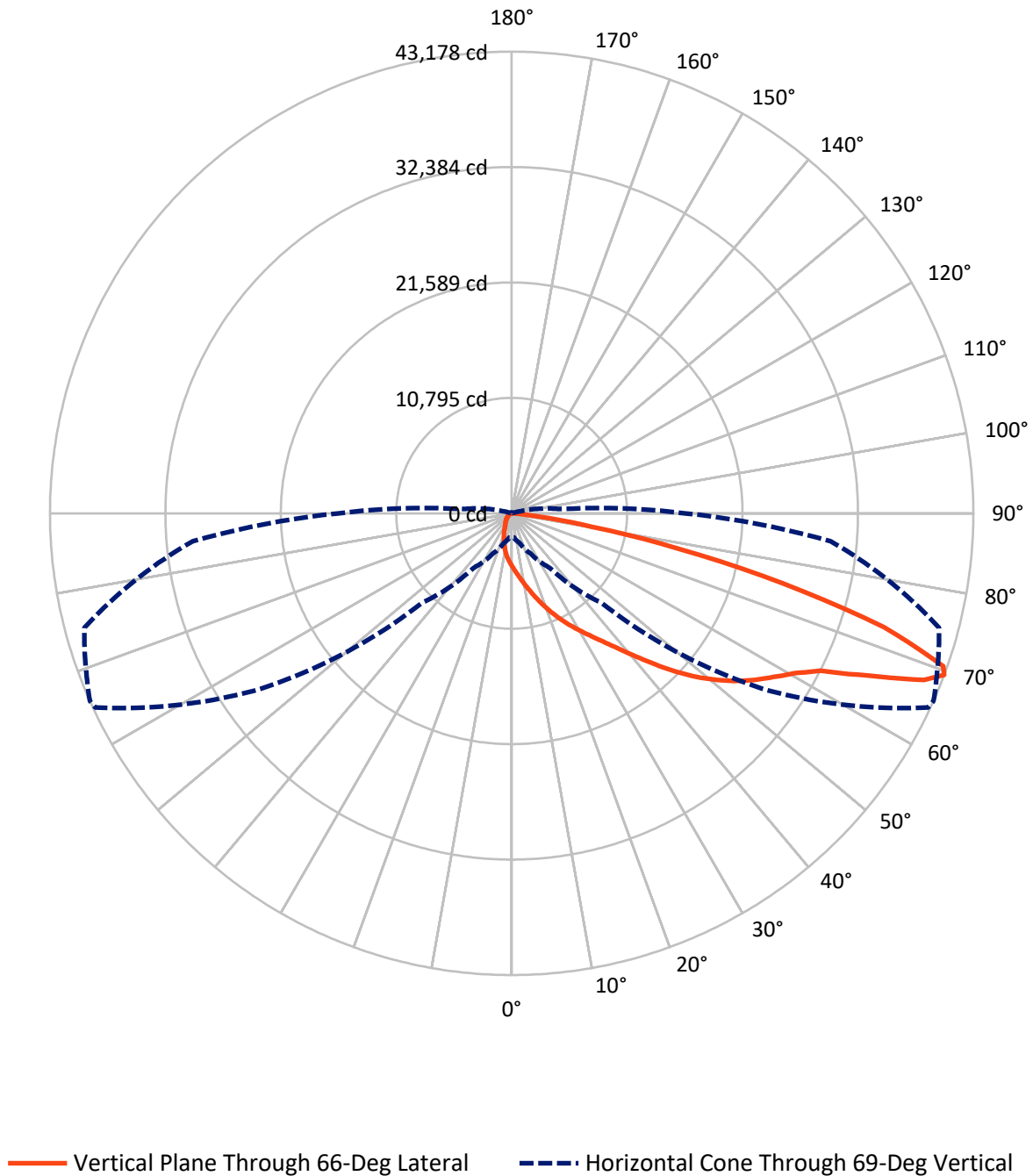
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 13.1 fc
 Type II - Medium - N/A

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Luminous Intensity Polar Plot



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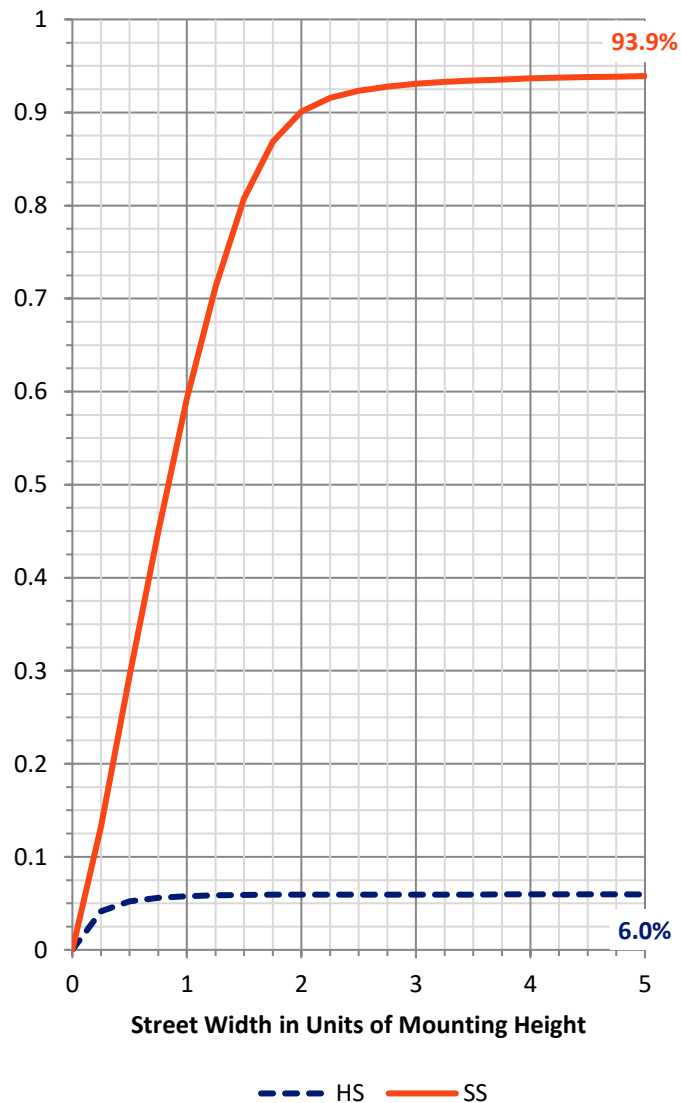
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2604.3	0.0	2604.3
	% Fixture	6.0	0.0	6.0
Street Side	Lumens	40810.7	0.0	40810.7
	% Fixture	94.0	0.0	94.0
Total	Lumens	43415.0	0.0	43415.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	477.6	1.1
10°-20°	1421.4	3.3
20°-30°	2475.2	5.7
30°-40°	4342.7	10.0
40°-50°	7269.0	16.7
50°-60°	10684.7	24.6
60°-70°	10970.5	25.3
70°-80°	5415.8	12.5
80°-90°	358.1	0.8
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°	43415.0	100.0
0°-180°	43415.0	100.0

Coefficient of Utilization



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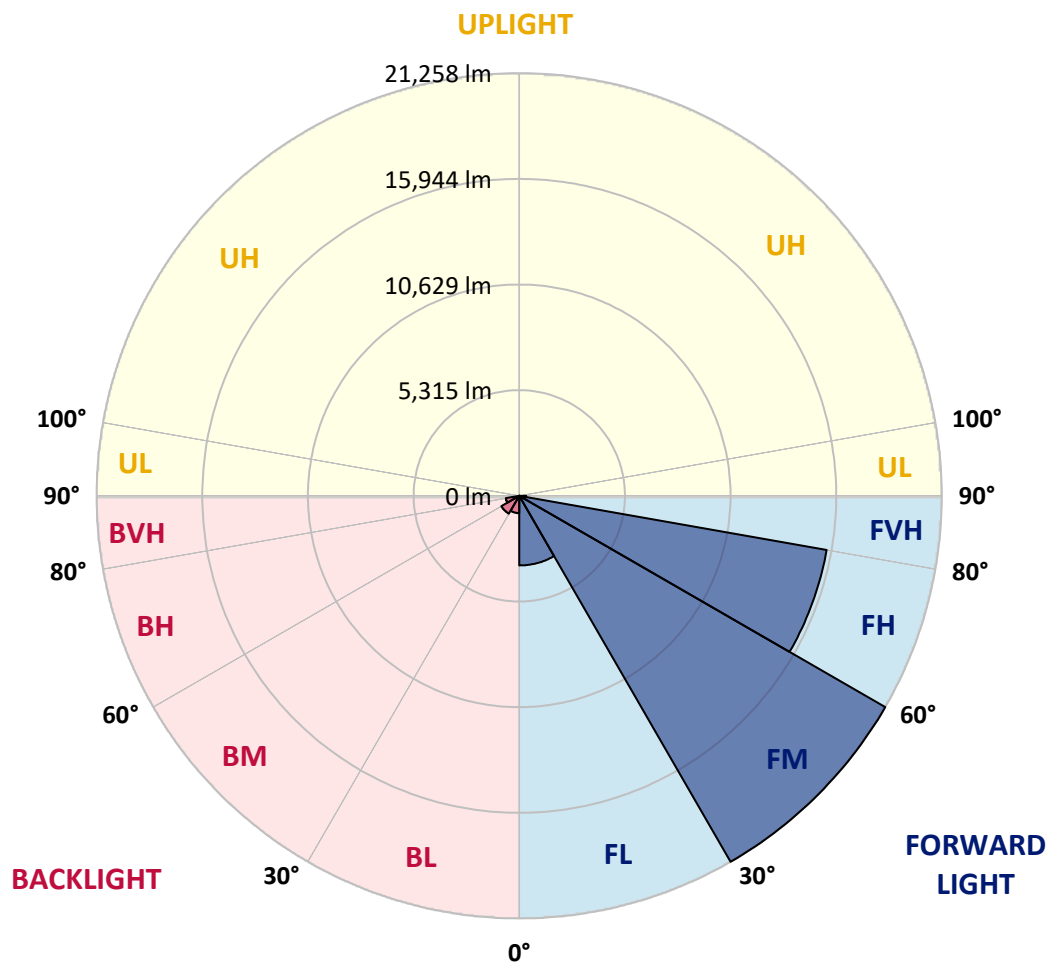
CATALOG NUMBER: GLEON-SA0D-830-U-T2-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3503.2	8.1			
FM	(30°-60°)	21258.1	49.0			
FH	(60°-80°)	15700.0	36.2			G5
FVH	(80°-90°)	349.4	0.8			G3/500
BL	(0°-30°)	871.0	2.0	B2/1000		
BM	(30°-60°)	1038.3	2.4	B2/2500		
BH	(60°-80°)	686.3	1.6	B2/1000		G2/1000
BVH	(80°-90°)	8.7	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G5

Type II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	75°	85°
0°	4940.8	4940.8	4940.8	4940.8	4940.8	4940.8	4940.8	4940.8	4940.8	4940.8	4940.8
2.5°	5815.1	5790.3	5780.0	5734.7	5656.3	5596.5	5481.0	5347.0	5322.3	5192.3	5033.6
5°	6569.8	6549.2	6534.8	6470.8	6390.4	6239.9	6029.5	5780.0	5732.6	5485.2	5167.6
7.5°	7095.6	7132.8	7132.8	7091.5	6990.5	6877.1	6619.3	6279.1	6219.3	5839.8	5347.0
10°	7402.9	7448.3	7483.3	7518.4	7503.9	7458.6	7215.3	6831.7	6759.5	6256.4	5555.3
12.5°	7431.8	7477.1	7576.1	7722.5	7864.8	7967.9	7815.3	7444.1	7361.7	6738.9	5802.7
15°	7270.9	7318.4	7471.0	7755.5	8099.9	8401.0	8450.4	8122.6	8038.0	7314.2	6112.0
17.5°	6990.5	7021.4	7240.0	7633.9	8174.1	8726.8	9025.8	8850.5	8772.1	7972.0	6456.4
20°	6782.2	6804.9	6996.7	7419.4	8128.8	8930.9	9570.2	9623.8	9541.3	8677.3	6829.6
22.5°	7139.0	7180.2	7186.4	7386.4	8005.0	9032.0	10048.6	10384.7	10322.8	9425.8	7196.7
25°	8114.3	8161.8	8005.0	7881.3	8110.2	9077.3	10458.9	11164.2	11114.7	10232.1	7565.8
27.5°	9403.1	9452.6	9250.5	8881.4	8660.8	9248.5	10823.9	11956.0	11953.9	11085.8	7963.8
30°	10669.3	10718.7	10512.5	10143.4	9636.1	9733.1	11139.4	12785.0	12797.3	11966.3	8386.5
32.5°	11997.2	12059.1	11846.7	11372.4	10842.5	10570.3	11582.8	13618.0	13688.1	12987.0	8862.9
35°	13506.7	13514.9	13215.9	12719.0	12108.6	11690.0	12294.2	14552.2	14719.2	14251.1	9467.1
37.5°	14987.3	15047.1	14801.7	14018.1	13457.2	12982.9	13352.0	15719.3	15956.4	15795.6	10256.8
40°	16084.3	16210.1	16175.0	15329.6	14797.6	14459.4	14665.6	17107.1	17408.2	17593.7	11252.8
42.5°	16773.0	16867.9	17028.7	16519.4	16036.9	16092.5	16216.3	18723.8	19094.9	19643.5	12397.3
45°	17562.8	17608.2	17742.2	17517.5	17191.6	17752.5	17861.8	20544.6	20934.3	21847.8	13667.5
47.5°	18527.9	18635.1	18672.2	18466.0	18317.5	19220.7	19447.6	22200.5	22746.9	24208.9	15012.0
50°	19756.9	19785.7	19849.7	19715.6	19567.2	20482.7	20870.4	23938.8	24435.8	26578.3	16337.9
52.5°	20959.1	21062.2	21284.9	21200.3	21140.5	21557.1	22138.6	25506.0	26060.7	28553.8	17661.8
55°	21305.5	21394.2	22163.3	22689.2	23175.8	22880.9	23351.1	26910.3	27510.3	30318.9	18936.2
57.5°	19921.8	20101.2	21433.4	22802.6	24821.4	24938.9	25017.3	28351.7	28889.9	31671.6	20262.1
60°	16424.5	16459.6	18645.4	20994.1	24549.2	26735.0	27450.5	29900.3	30351.9	32931.6	21849.9
62.5°	10446.5	10803.3	13201.5	16517.3	21670.5	26475.2	30393.1	32242.8	32407.8	34443.1	24126.4
65°	4975.8	5206.8	6934.8	10205.3	15696.6	23149.0	32424.3	36480.4	36554.7	37439.3	27168.0
67.5°	2755.0	2866.3	3689.1	5493.4	9176.3	16370.9	31603.6	41499.6	41569.7	40499.4	29836.4
69°	2154.9	2249.7	2897.2	4140.7	6221.3	11766.3	28599.1	42969.8	43178.1	41375.8	29931.2
70°	1829.1	1921.9	2495.1	3497.3	5002.6	9091.8	25456.5	42604.8	42825.5	41293.3	29223.9
72.5°	1119.7	1173.3	1662.0	2462.1	3353.0	4573.7	15698.7	36030.9	36404.1	37878.5	25116.2
75°	754.7	783.6	1039.3	1699.2	2398.2	2354.9	8155.6	25396.7	26205.0	29465.2	18550.6
77.5°	540.3	567.1	697.0	1099.1	1680.6	1554.8	3693.2	15783.2	15956.4	17672.1	10116.6
80°	307.3	332.0	492.8	653.7	1140.3	1037.2	1468.2	7539.0	7625.6	7578.2	3377.7
82.5°	160.8	181.5	270.1	431.0	732.0	678.4	610.4	2524.0	2536.4	2109.5	740.3
85°	30.9	37.1	134.0	294.9	377.4	294.9	249.5	591.8	604.2	534.1	183.5
87.5°	0.0	2.1	53.6	66.0	74.2	76.3	80.4	115.5	123.7	167.0	49.5
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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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	4940.8	4940.8	4940.8	4940.8	4940.8	4940.8	4940.8	4940.8	4940.8	4940.8	4940.8
2.5°	4963.4	4889.2	4746.9	4582.0	4454.1	4328.3	4229.3	4126.2	4089.1	4070.6	4068.5
5°	5012.9	4856.2	4555.2	4245.8	3992.2	3753.0	3581.8	3418.9	3342.6	3307.6	3293.2
7.5°	5095.4	4843.8	4359.3	3887.0	3522.0	3223.0	2985.9	2808.6	2719.9	2682.8	2668.3
10°	5192.3	4827.4	4130.4	3507.6	3041.6	2732.3	2497.2	2321.9	2225.0	2183.8	2163.1
12.5°	5305.8	4798.5	3866.4	3124.1	2631.2	2321.9	2037.3	1820.8	1709.5	1662.0	1639.4
15°	5446.0	4769.6	3590.1	2763.2	2270.4	1893.0	1581.6	1435.2	1412.5	1404.3	1406.3
17.5°	5584.1	4724.2	3289.0	2406.5	1890.9	1478.5	1319.7	1311.5	1315.6	1315.6	1315.6
20°	5707.9	4621.1	2961.2	2101.3	1530.1	1247.6	1214.6	1200.1	1189.8	1181.6	1171.3
22.5°	5804.8	4483.0	2645.7	1798.1	1249.6	1142.4	1090.8	1045.5	1008.4	983.6	971.2
25°	5870.8	4299.5	2357.0	1507.4	1123.8	1039.3	946.5	870.2	812.5	777.4	763.0
27.5°	5920.3	4101.5	2099.2	1262.0	1037.2	919.7	798.0	707.3	647.5	616.6	604.2
30°	5955.3	3876.7	1872.4	1109.4	940.3	793.9	664.0	575.3	532.0	515.5	507.3
32.5°	5988.3	3627.2	1657.9	1037.2	849.6	678.4	556.8	488.7	461.9	441.3	435.1
35°	6070.8	3396.3	1453.8	960.9	756.8	579.4	478.4	428.9	402.1	389.7	385.6
37.5°	6266.7	3225.1	1257.9	882.6	664.0	501.1	418.6	383.5	358.8	346.4	342.3
40°	6582.2	3138.5	1092.9	798.0	573.3	441.3	379.4	346.4	319.6	301.1	296.9
42.5°	7046.2	3150.9	977.4	713.5	501.1	393.9	342.3	303.1	274.3	257.8	253.6
45°	7609.1	3241.6	897.0	631.0	441.3	356.7	301.1	259.8	233.0	218.6	214.5
47.5°	8219.5	3388.0	831.0	556.8	393.9	321.7	259.8	216.5	193.8	181.5	179.4
50°	8862.9	3530.3	763.0	484.6	352.6	286.6	218.6	179.4	160.8	150.5	146.4
52.5°	9514.5	3695.3	701.1	418.6	317.6	245.4	181.5	146.4	132.0	123.7	119.6
55°	10215.6	3819.0	641.3	367.1	282.5	208.3	150.5	121.7	109.3	99.0	96.9
57.5°	11040.4	4010.8	579.4	317.6	241.3	173.2	123.7	96.9	86.6	76.3	74.2
60°	12154.0	4235.5	513.5	280.4	198.0	142.3	101.0	78.4	66.0	57.7	55.7
62.5°	13622.2	4485.0	431.0	245.4	160.8	115.5	80.4	61.9	47.4	37.1	37.1
65°	15484.2	4891.3	352.6	206.2	132.0	94.9	61.9	45.4	26.8	16.5	16.5
67.5°	16571.0	4961.4	284.6	169.1	107.2	80.4	51.6	30.9	8.2	2.1	0.0
69°	16222.5	4555.2	241.3	144.3	92.8	76.3	47.4	22.7	4.1	0.0	0.0
70°	15566.7	4165.4	212.4	127.8	84.5	72.2	45.4	16.5	4.1	0.0	0.0
72.5°	12863.3	2965.3	160.8	94.9	61.9	63.9	41.2	10.3	4.1	0.0	0.0
75°	9370.1	1802.3	115.5	66.0	39.2	47.4	28.9	4.1	2.1	0.0	0.0
77.5°	5213.0	849.6	72.2	37.1	24.7	28.9	14.4	0.0	0.0	0.0	0.0
80°	1693.0	231.0	33.0	20.6	14.4	16.5	6.2	0.0	0.0	0.0	0.0
82.5°	313.4	66.0	18.6	10.3	4.1	4.1	0.0	0.0	0.0	0.0	0.0
85°	68.0	26.8	10.3	4.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	22.7	8.2	2.1	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

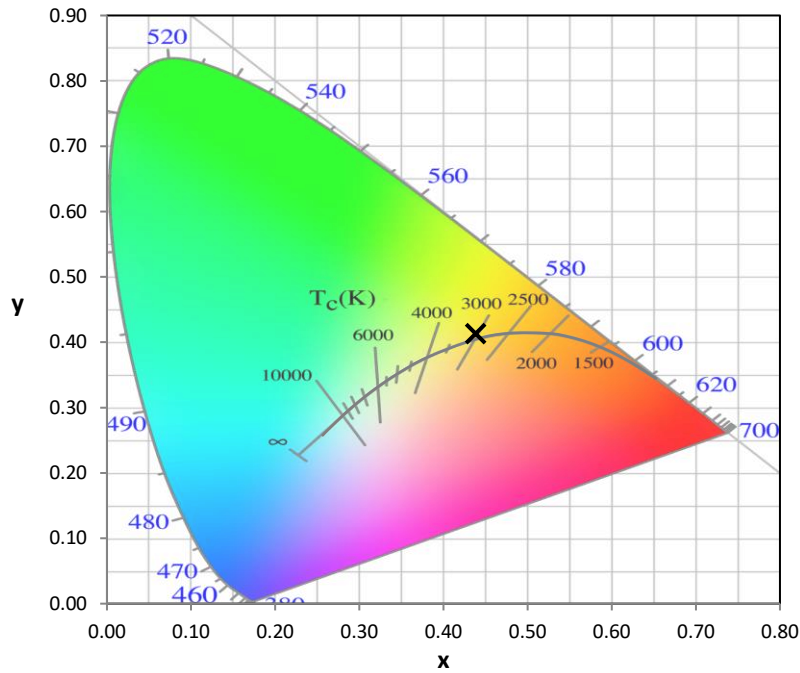
Stabilization Time: 20M
 Operation Time: 1H 20M
 Sphere Temperature (°C): 24.2

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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

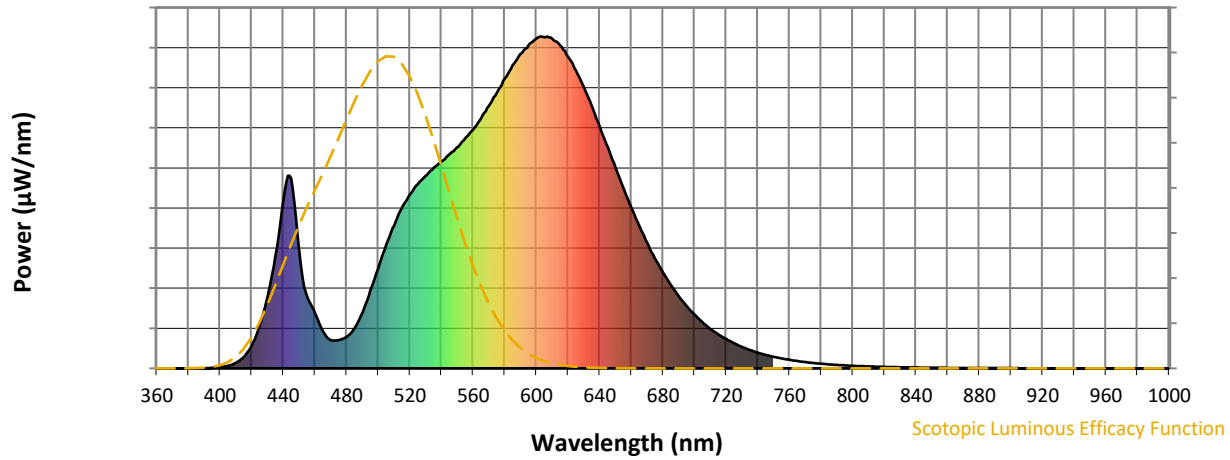


Photopic Lumens: NR

λ (nm)	Power 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



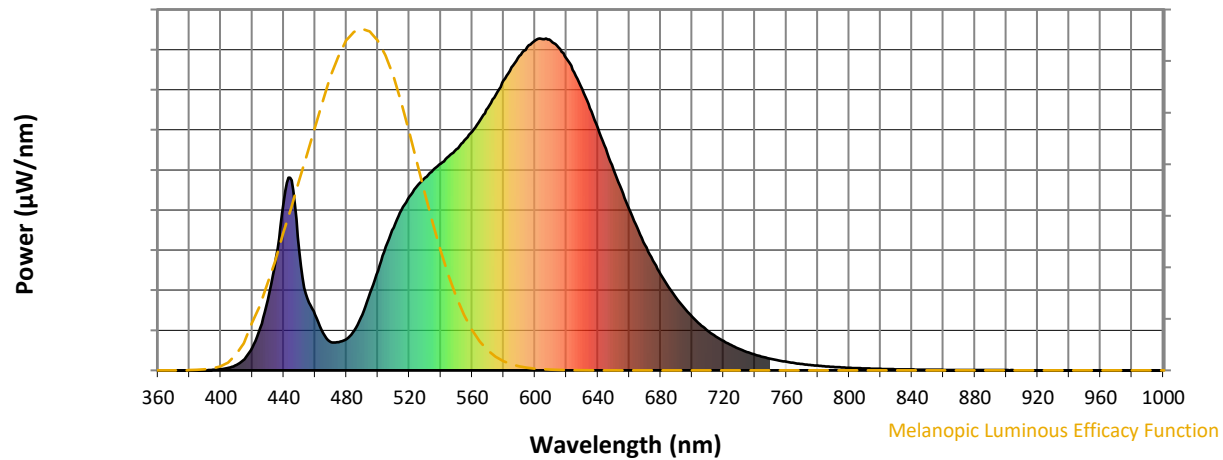
Scotopic Lumens: NR

S/P: 1.27

λ (nm)	Power W ^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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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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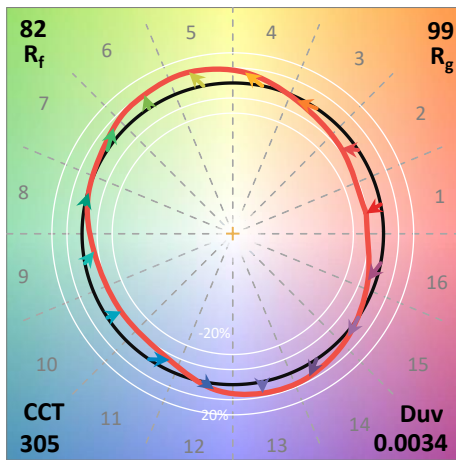
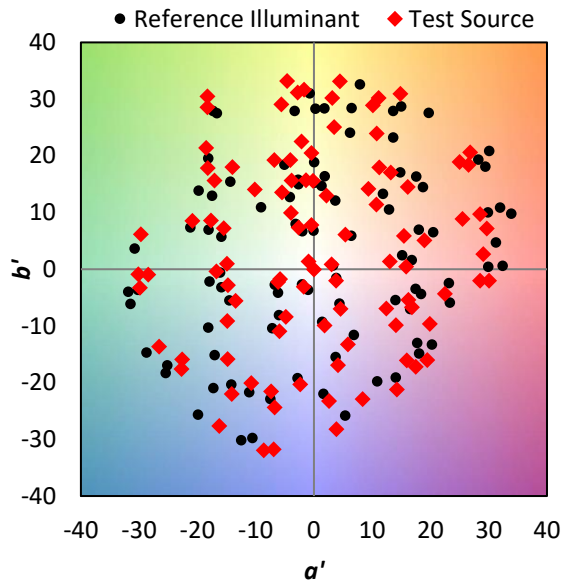
TM-30-18

Summary

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



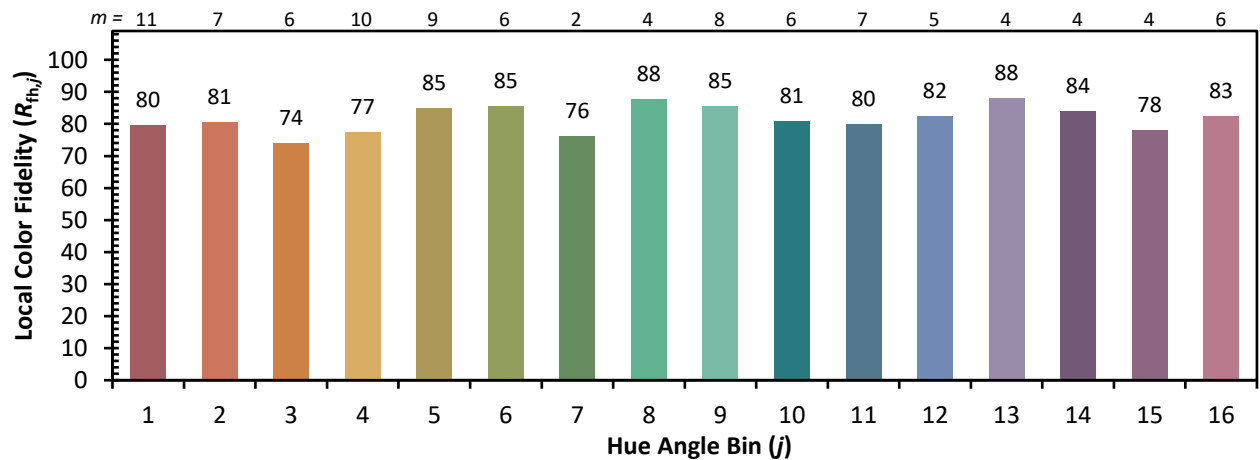
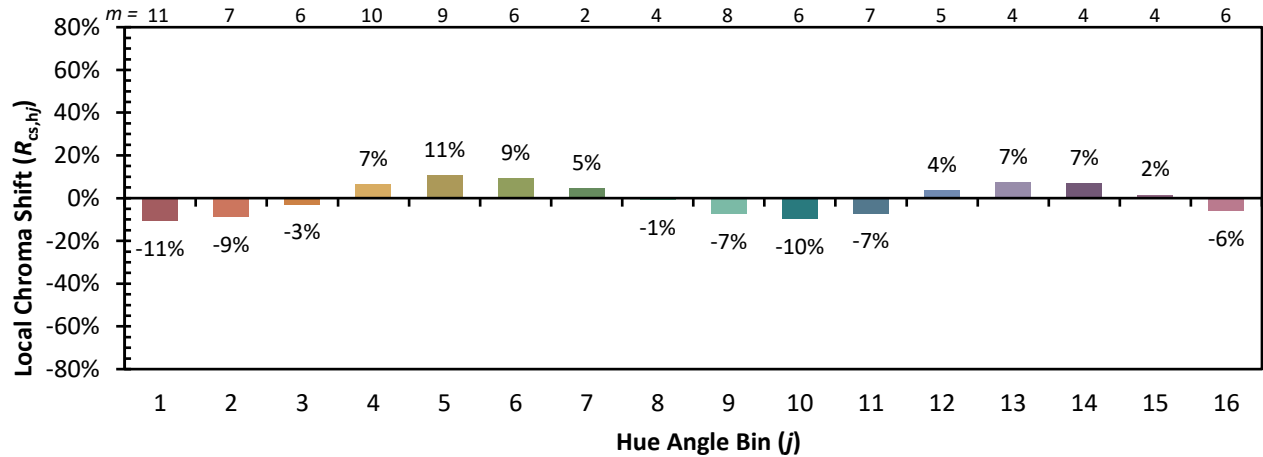
Color Vector Graphics

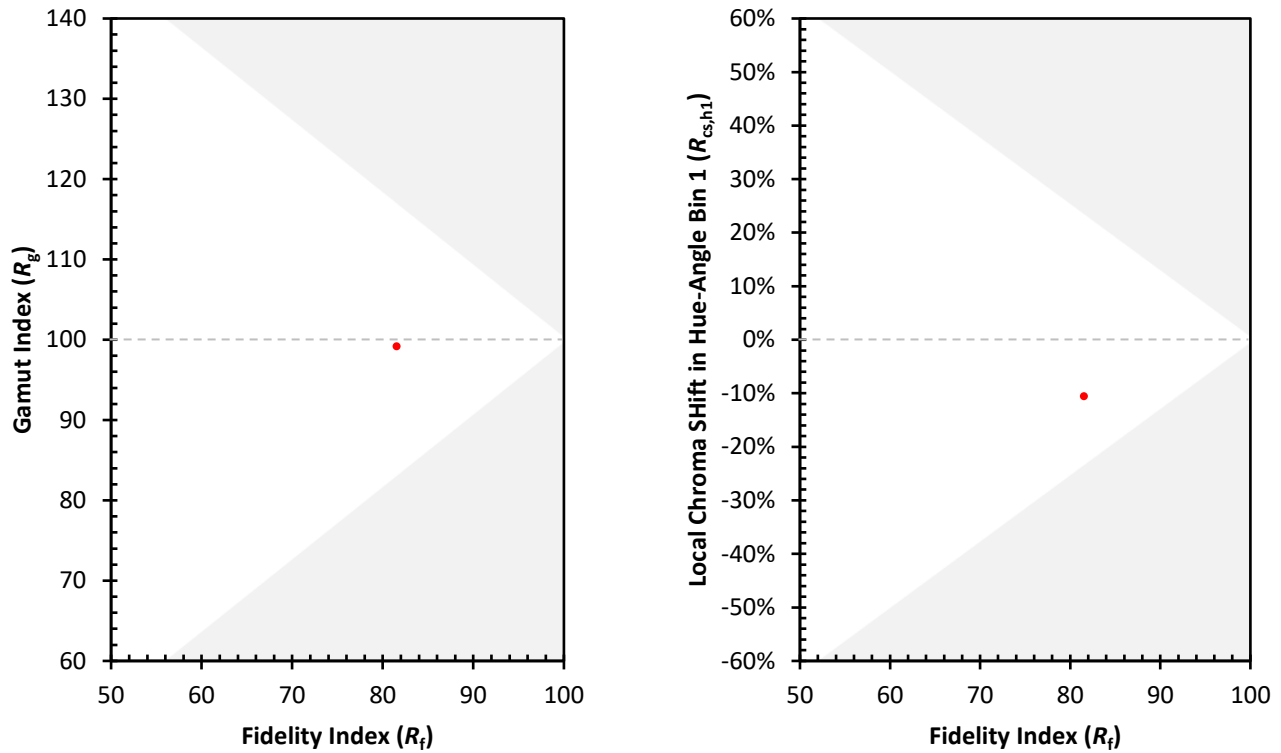


Individual Sample Fidelity Index ($R_{f,i}$)

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)