

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: P321453

Luminaire Tested: **GLEON-SA9C-830-U-T2R-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P321453
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-SA9C-830-U-T2R-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(9) 80 CRI, 3000K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II
ROADWAY OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 40559 lumens
Efficiency: N/A
Efficacy: 81.0 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B2 - U0 - G4

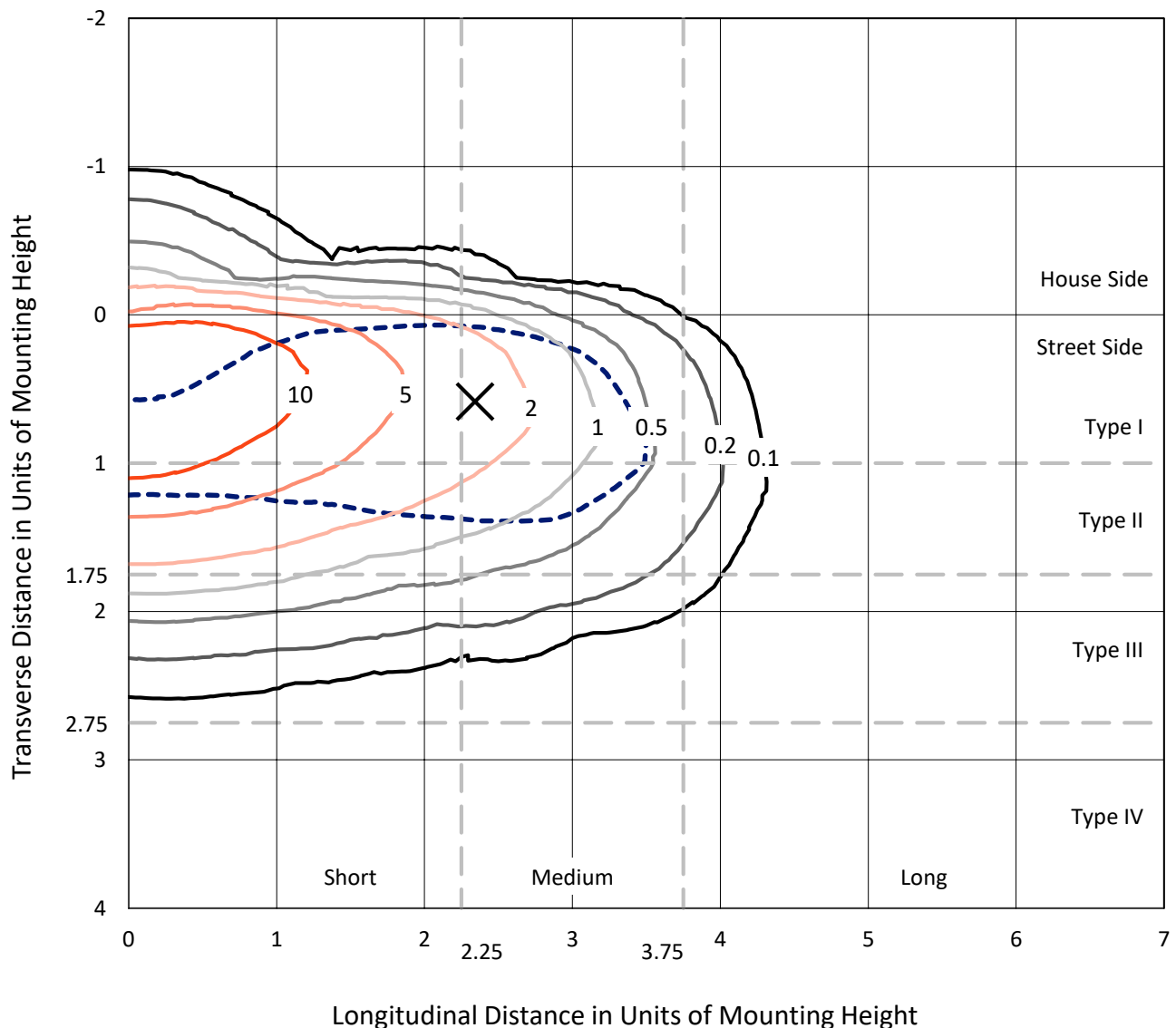
Input Watts (W): 501
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P321453
 CATALOG NUMBER: GLEON-SA9C-830-U-T2R-HSS

Iso-Footcandle Lines of Horizontal Illumination

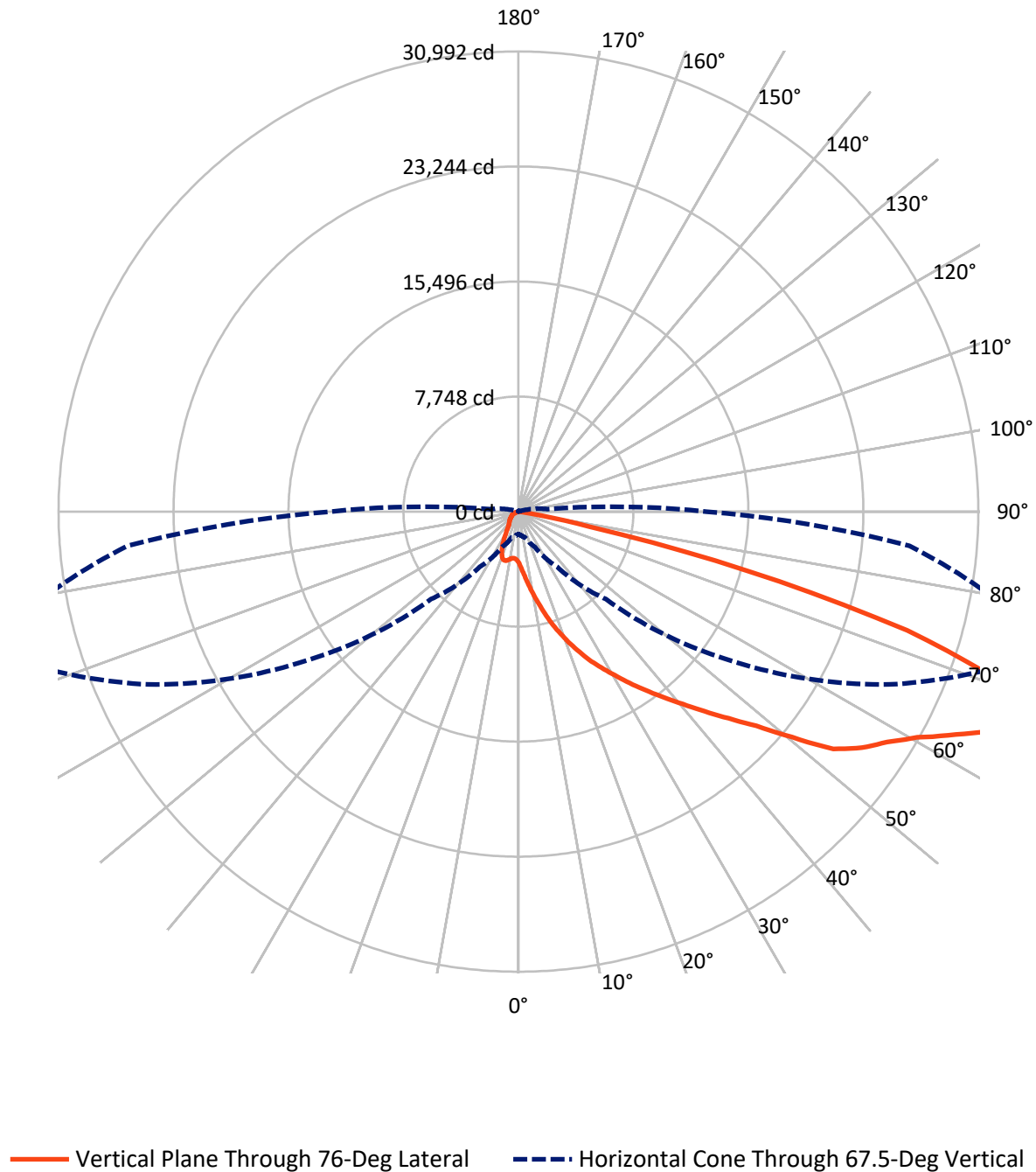
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 19.4 fc
 Type II - Medium - N/A

REPORT NUMBER: P321453
CATALOG NUMBER: GLEON-SA9C-830-U-T2R-HSS

Luminous Intensity Polar Plot



REPORT NUMBER: P321453
 CATALOG NUMBER: GLEON-SA9C-830-U-T2R-HSS

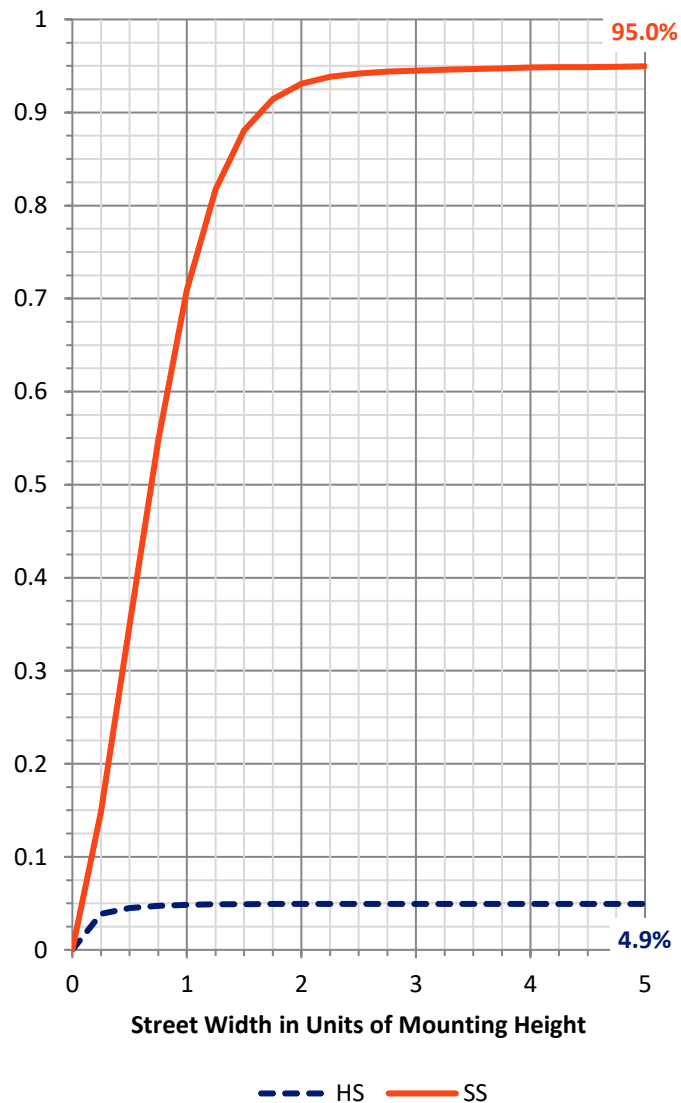
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2014.1	0.0	2014.1
	% Fixture	5.0	0.0	5.0
Street Side	Lumens	38544.9	0.0	38544.9
	% Fixture	95.0	0.0	95.0
Total	Lumens	40559.0	0.0	40559.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	427.8	1.1
10°-20°	1696.0	4.2
20°-30°	3450.8	8.5
30°-40°	5989.4	14.8
40°-50°	8462.3	20.9
50°-60°	9596.6	23.7
60°-70°	7959.5	19.6
70°-80°	2883.2	7.1
80°-90°	93.5	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°	40559.0	100.0
0°-180°	40559.0	100.0

Coefficient of Utilization



REPORT NUMBER: P321453

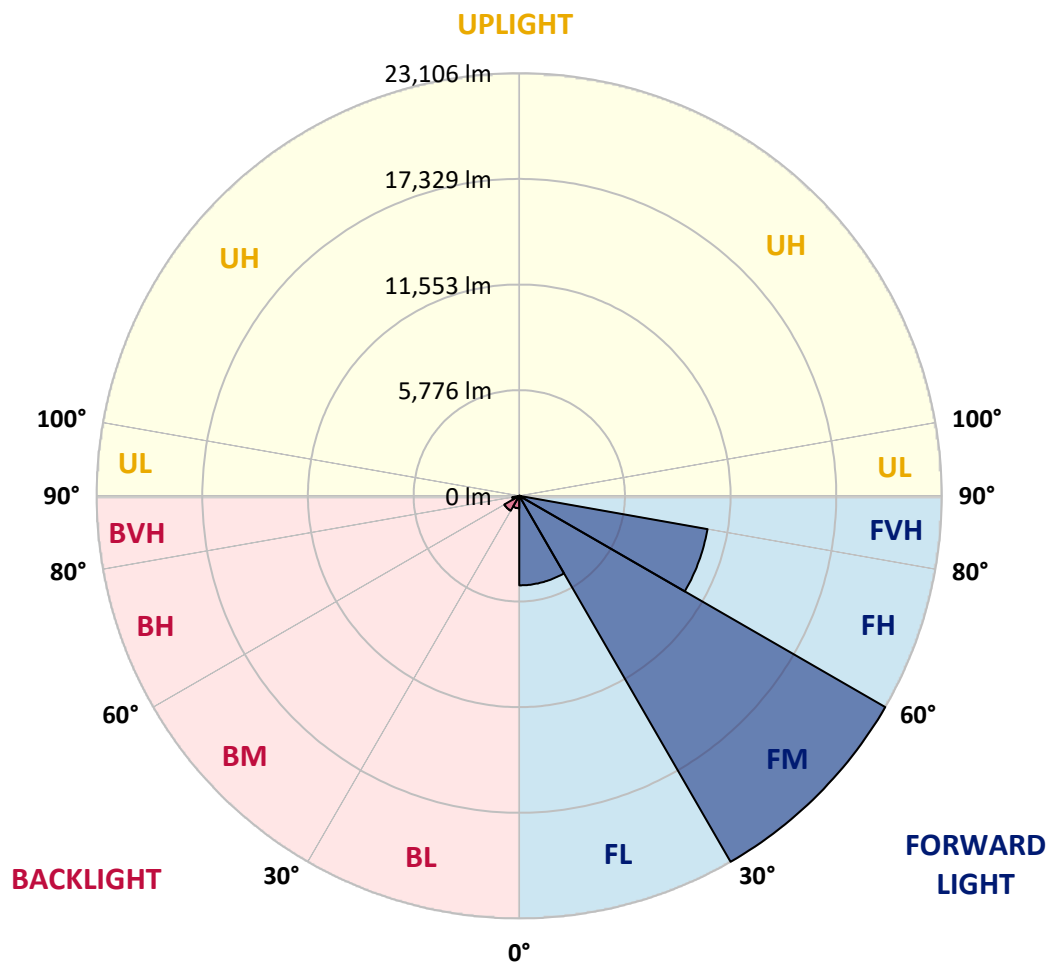
CATALOG NUMBER: GLEON-SA9C-830-U-T2R-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	4895.3	12.1			
FM	(30°-60°)	23105.6	57.0			
FH	(60°-80°)	10453.4	25.8			G4/12000
FVH	(80°-90°)	90.6	0.2			G1/100
BL	(0°-30°)	679.2	1.7	B2/1000		
BM	(30°-60°)	942.6	2.3	B1/1000		
BH	(60°-80°)	389.2	1.0	B1/500		G1/500
BVH	(80°-90°)	2.9	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-G4

Type II Medium



REPORT NUMBER: P321453

CATALOG NUMBER: GLEON-SA9C-830-U-T2R-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	76°	85°
0°	3440.6	3440.6	3440.6	3440.6	3440.6	3440.6	3440.6	3440.6	3440.6	3440.6	3440.6
2.5°	5136.0	5020.5	5047.1	4972.5	4837.4	4560.2	4323.8	4099.9	3838.7	3829.8	3614.7
5°	6925.6	6827.8	6815.4	6664.3	6419.1	5948.1	5489.6	4967.2	4384.2	4341.6	3884.9
7.5°	8549.9	8471.7	8443.3	8263.8	7807.1	7348.5	6751.4	5983.7	5072.0	4993.8	4249.2
10°	9797.5	9760.2	9767.3	9639.3	9248.3	8821.8	8038.1	7058.9	5852.2	5731.3	4686.4
12.5°	10742.9	10751.8	10815.8	10737.6	10519.0	10202.7	9365.6	8205.1	6715.9	6550.6	5185.7
15°	11437.8	11482.2	11599.5	11697.3	11681.3	11407.6	10639.8	9369.2	7632.9	7449.8	5742.0
17.5°	11887.4	11937.2	12107.8	12324.6	12523.6	12459.7	11869.6	10492.3	8560.6	8349.1	6337.3
20°	12281.9	12340.6	12523.6	12809.8	13181.2	13261.2	12873.7	11581.7	9486.5	9228.8	6952.2
22.5°	13136.8	13135.0	13246.9	13414.0	13767.6	13973.8	13728.5	12592.9	10401.7	10133.4	7579.6
25°	14682.9	14624.2	14585.1	14453.6	14531.8	14659.8	14522.9	13538.4	11322.3	11050.4	8215.8
27.5°	16520.5	16556.0	16239.7	15886.0	15612.3	15480.8	15256.9	14414.5	12207.3	11908.7	8837.8
30°	18459.3	18470.0	18096.8	17645.4	17042.9	16543.6	16156.1	15251.6	13117.2	12792.0	9442.0
32.5°	20208.1	20138.8	19769.1	19154.2	18393.6	17832.0	17027.0	16186.4	14080.4	13765.9	10113.8
35°	21594.2	21512.5	21062.9	20503.1	19714.0	19148.9	18180.3	17119.4	15093.4	14786.0	10787.3
37.5°	22607.2	22511.3	22049.2	21473.4	20792.7	20464.0	19518.5	18134.1	16198.8	15868.2	11496.4
40°	22959.1	22875.6	22585.9	22164.7	21617.3	21542.7	20938.5	19301.7	17401.9	17050.1	12299.7
42.5°	22749.4	22667.7	22564.6	22422.4	22194.9	22266.0	22278.5	20632.8	18738.4	18391.8	13186.5
45°	21917.7	21844.8	21951.5	22159.4	22442.0	22793.8	23501.1	22063.4	20231.2	19861.5	14211.9
47.5°	20693.2	20639.9	20934.9	21453.9	22280.2	23250.6	24619.0	23566.9	21907.0	21564.0	15491.5
50°	18951.6	18942.7	19532.7	20480.0	21750.6	23470.9	25774.1	25276.5	24235.1	23874.3	17270.4
52.5°	16239.7	16257.4	17417.9	18933.8	20821.2	23321.6	26517.0	27473.1	26943.5	26568.5	18811.2
55°	13657.5	13764.1	14586.9	16772.8	19395.9	22767.2	26772.9	28498.5	28438.1	28082.7	19667.8
57.5°	11128.6	11322.3	12114.9	14156.8	17314.9	21489.4	26632.5	28942.8	29550.6	29278.7	20798.1
60°	8388.2	8477.0	9390.5	11299.2	14643.8	19157.8	25614.2	29184.5	31071.8	30883.5	22438.4
62.5°	5336.8	5559.0	6369.3	8210.5	11402.2	15919.8	23897.4	29180.9	32975.2	33078.2	24555.0
65°	2811.5	3070.9	3501.0	5088.0	7835.5	12303.3	21315.2	28907.3	35310.4	35454.3	26209.5
67.5°	1515.9	1590.6	1818.0	2640.9	4544.2	8334.9	17521.0	27556.6	36662.8	36852.9	26440.6
70°	1108.9	1149.8	1235.1	1460.8	2287.2	4841.0	12784.9	24494.6	34919.4	34848.3	23492.3
72.5°	851.3	915.2	979.2	1069.8	1315.1	2584.0	7959.9	19180.9	27862.3	27393.1	17560.1
75°	671.8	682.4	773.1	854.8	986.3	1471.5	3534.8	11171.2	17005.6	15894.9	9106.2
77.5°	536.7	543.8	597.1	668.2	792.6	966.8	1094.7	4394.9	5429.2	4844.5	1976.2
80°	318.1	335.9	444.3	515.4	657.5	609.6	399.9	954.3	847.7	767.7	332.3
82.5°	177.7	191.9	250.6	407.0	458.5	291.5	199.0	257.7	199.0	193.7	94.2
85°	0.0	8.9	161.7	252.4	186.6	64.0	83.5	85.3	58.6	55.1	37.3
87.5°	0.0	0.0	49.8	48.0	7.1	10.7	19.5	28.4	23.1	23.1	19.5
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: P321453

CATALOG NUMBER: GLEON-SA9C-830-U-T2R-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3440.6	3440.6	3440.6	3440.6	3440.6	3440.6	3440.6	3440.6	3440.6	3440.6	3440.6
2.5°	3508.1	3412.1	3230.9	3053.2	2903.9	2781.3	2671.1	2626.6	2591.1	2585.8	2557.3
5°	3664.5	3470.8	3124.2	2839.9	2649.7	2514.7	2399.2	2328.1	2273.0	2251.7	2232.1
7.5°	3900.9	3607.6	3110.0	2783.0	2555.6	2328.1	2114.8	1883.8	1739.8	1684.7	1652.8
10°	4188.8	3788.9	3163.3	2767.0	2369.0	1889.1	1535.5	1242.2	1123.2	1084.1	1073.4
12.5°	4524.6	4014.6	3255.8	2667.5	1970.9	1341.8	1059.2	959.7	933.0	920.6	920.6
15°	4910.3	4261.6	3321.5	2379.6	1457.3	1014.8	917.0	870.8	842.4	826.4	828.2
17.5°	5304.8	4503.3	3289.5	1962.0	1075.2	902.8	829.9	780.2	741.1	725.1	721.5
20°	5702.9	4727.2	3111.8	1460.8	909.9	819.3	737.5	682.4	643.3	627.3	623.8
22.5°	6115.2	4917.4	2799.0	1071.6	817.5	726.9	646.9	591.8	554.5	540.3	533.1
25°	6516.8	5072.0	2361.8	867.3	730.4	639.8	563.4	511.8	478.1	463.8	462.1
27.5°	6891.8	5169.8	1855.4	766.0	654.0	561.6	492.3	446.1	417.6	407.0	405.2
30°	7229.5	5178.6	1372.0	691.3	586.5	494.0	430.1	389.2	364.3	353.7	350.1
32.5°	7570.7	5104.0	998.8	623.8	524.3	435.4	373.2	341.2	323.4	314.6	314.6
35°	7892.4	4931.6	778.4	565.1	463.8	378.5	328.8	305.7	295.0	286.1	286.1
37.5°	8206.9	4684.6	661.1	513.6	407.0	330.6	289.7	275.5	266.6	257.7	257.7
40°	8526.8	4373.6	600.7	465.6	360.8	293.2	257.7	245.2	236.4	229.3	227.5
42.5°	8919.6	4014.6	561.6	421.2	319.9	259.5	227.5	213.3	206.2	199.0	195.5
45°	9374.5	3705.4	529.6	376.8	286.1	231.0	197.3	183.0	172.4	163.5	161.7
47.5°	10030.3	3481.5	486.9	328.8	254.1	200.8	170.6	154.6	138.6	129.7	128.0
50°	10867.3	3296.6	431.8	286.1	222.1	170.6	142.2	122.6	108.4	99.5	99.5
52.5°	11283.2	3054.9	382.1	248.8	186.6	143.9	115.5	92.4	85.3	76.4	76.4
55°	11450.2	2870.1	332.3	211.5	154.6	119.1	90.6	71.1	65.8	60.4	58.6
57.5°	11919.4	2816.8	289.7	179.5	128.0	94.2	69.3	53.3	49.8	42.7	42.7
60°	12674.7	2843.5	250.6	152.8	103.1	72.9	51.5	40.9	37.3	30.2	30.2
62.5°	13490.4	2809.7	211.5	131.5	80.0	53.3	35.5	30.2	30.2	17.8	16.0
65°	13646.8	2502.2	181.3	108.4	62.2	39.1	23.1	19.5	26.7	3.6	0.0
67.5°	12665.8	1940.7	156.4	83.5	46.2	30.2	17.8	8.9	23.1	0.0	0.0
70°	10128.0	1233.3	126.2	60.4	35.5	24.9	14.2	3.6	17.8	0.0	0.0
72.5°	7161.9	716.2	99.5	42.7	30.2	19.5	10.7	0.0	10.7	0.0	0.0
75°	3621.8	382.1	62.2	32.0	23.1	14.2	7.1	0.0	1.8	0.0	0.0
77.5°	783.7	177.7	39.1	23.1	16.0	8.9	3.6	0.0	0.0	0.0	0.0
80°	170.6	78.2	24.9	14.2	8.9	5.3	0.0	0.0	0.0	0.0	0.0
82.5°	62.2	40.9	12.4	7.1	3.6	0.0	0.0	0.0	0.0	0.0	0.0
85°	33.8	21.3	7.1	3.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	17.8	7.1	1.8	1.8	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

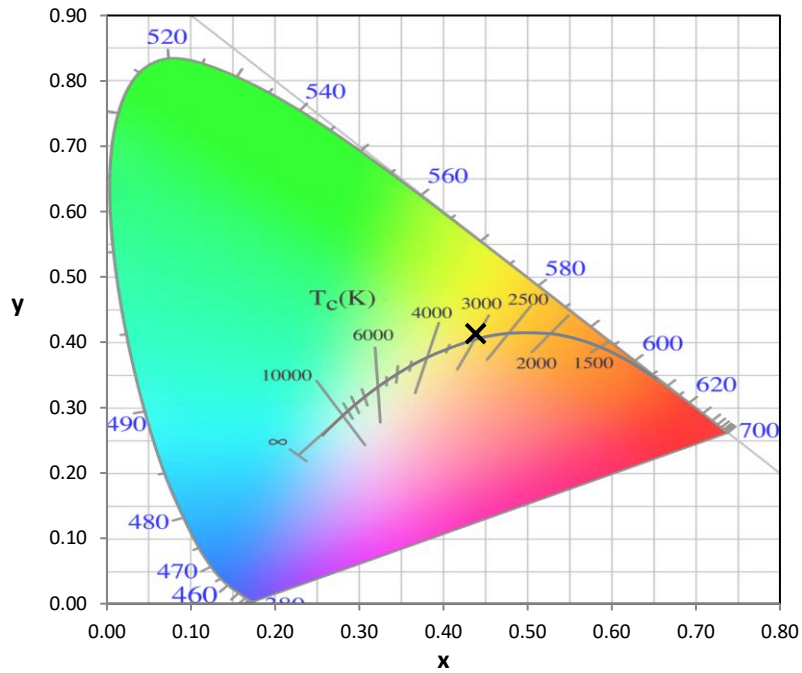
Stabilization Time: 20M
 Operation Time: 1H 20M
 Sphere Temperature (°C): 24.2

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 $\text{W}^\wedge/\text{nm}$	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

Scotopic Flux vs. Wavelength



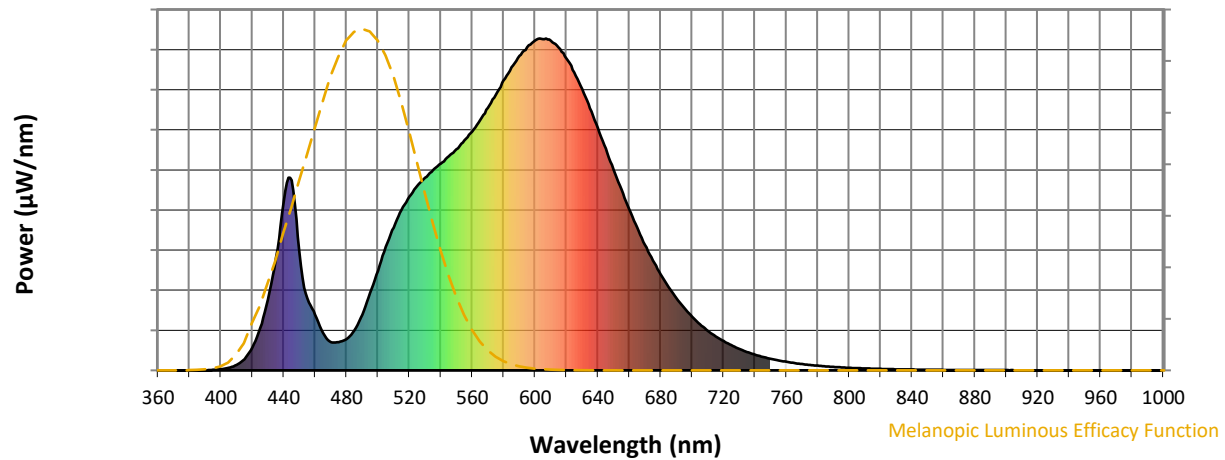
Scotopic Lumens: NR

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			

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

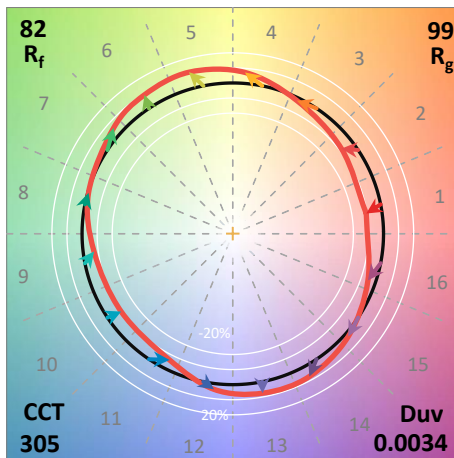
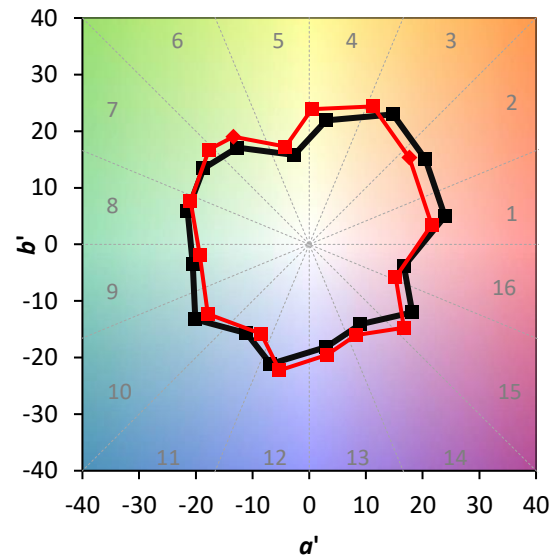
TM-30-18

Summary

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

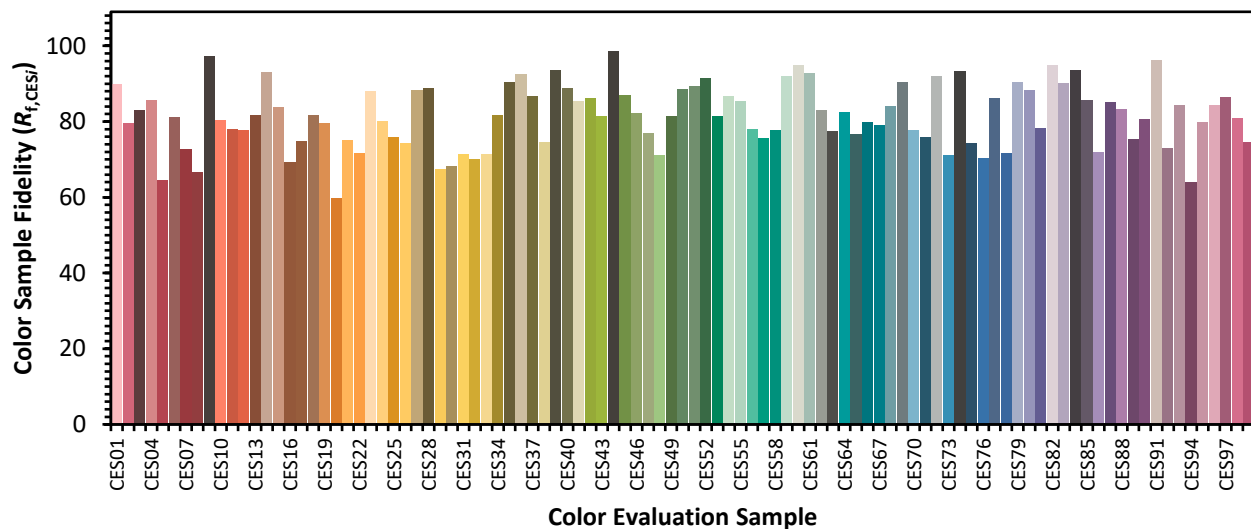


Color Vector Graphics

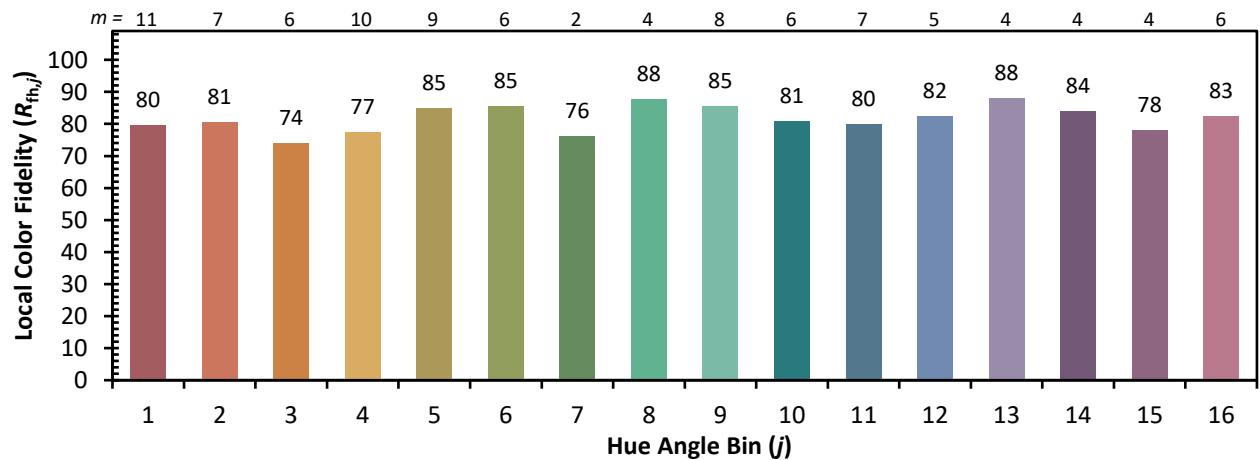
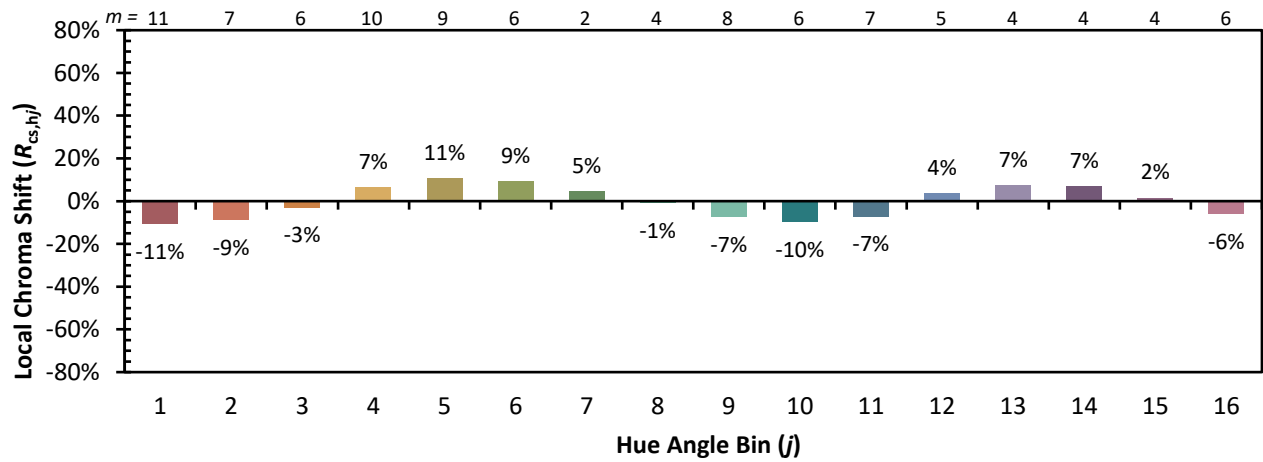


Individual Sample Fidelity Index ($R_{f,i}$)

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)