

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: P323993

Luminaire Tested: **GLEON-SA9A-830-U-SL4-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P323993
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-25)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: GLEON-SA9A-830-U-SL4-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(9) 80 CRI, 3000K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV SPILL
LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 26869 lumens
Efficiency: N/A
Efficacy: 92.7 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G4

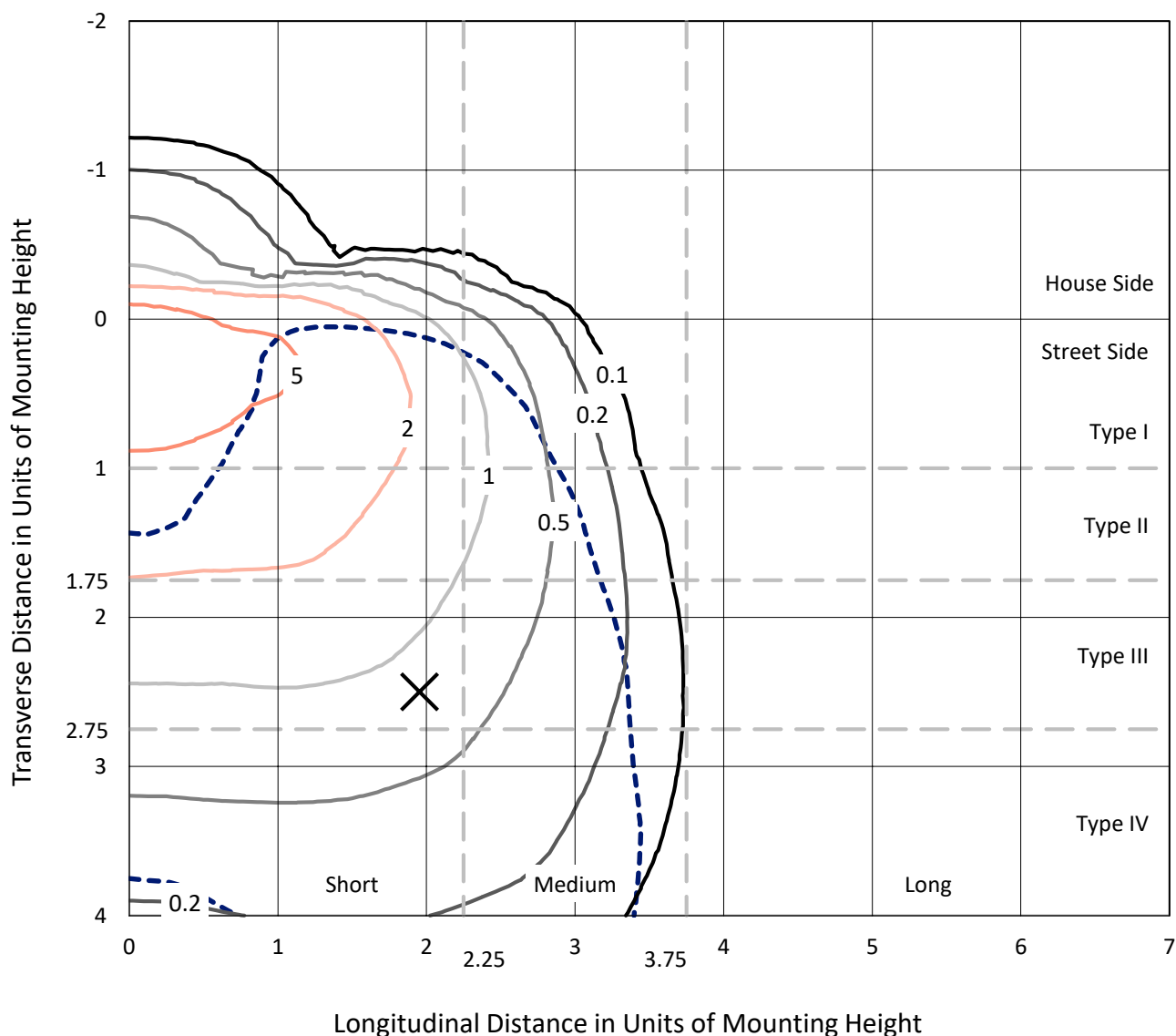
Input Watts (W): 290
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

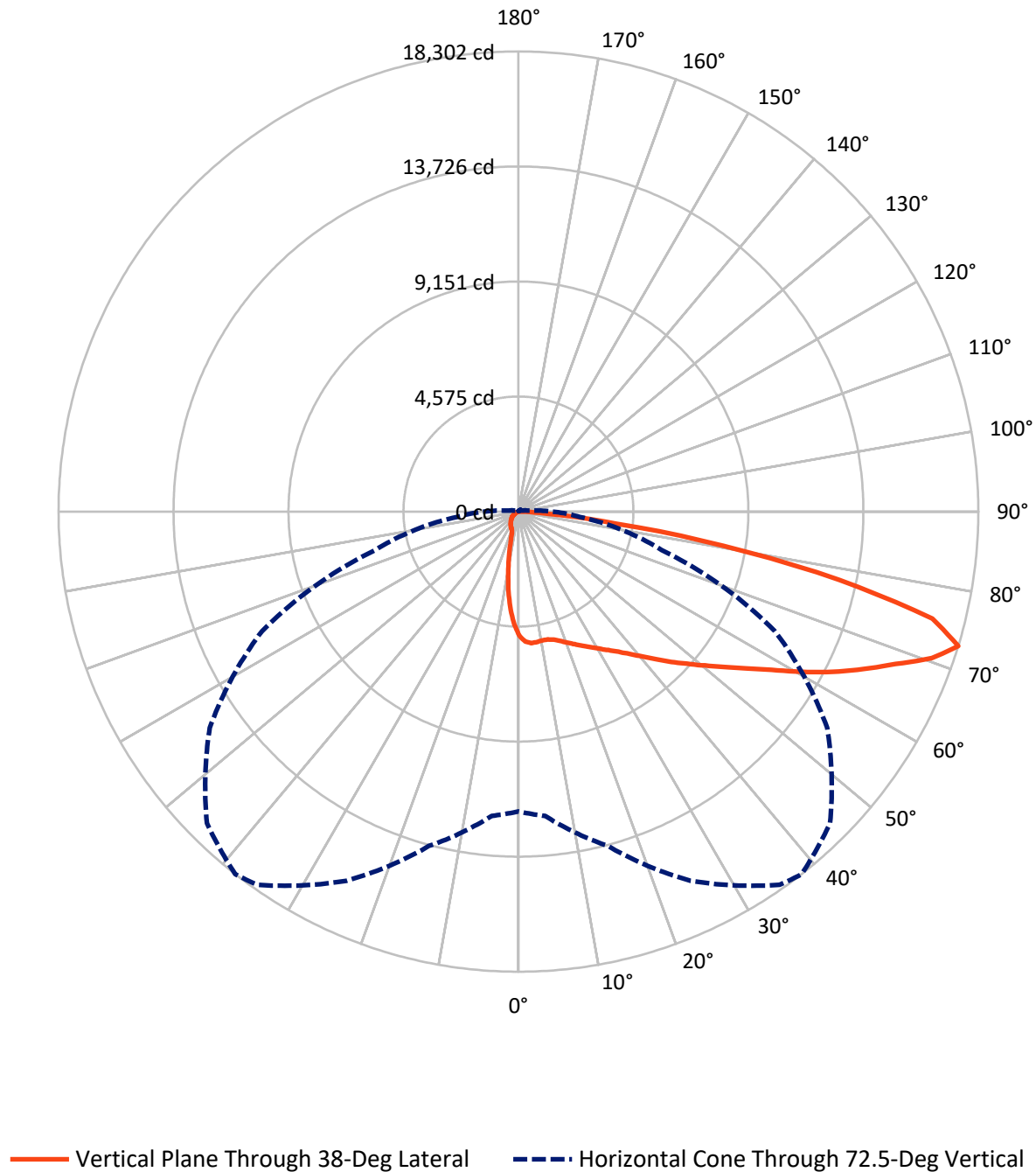
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 8.4 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



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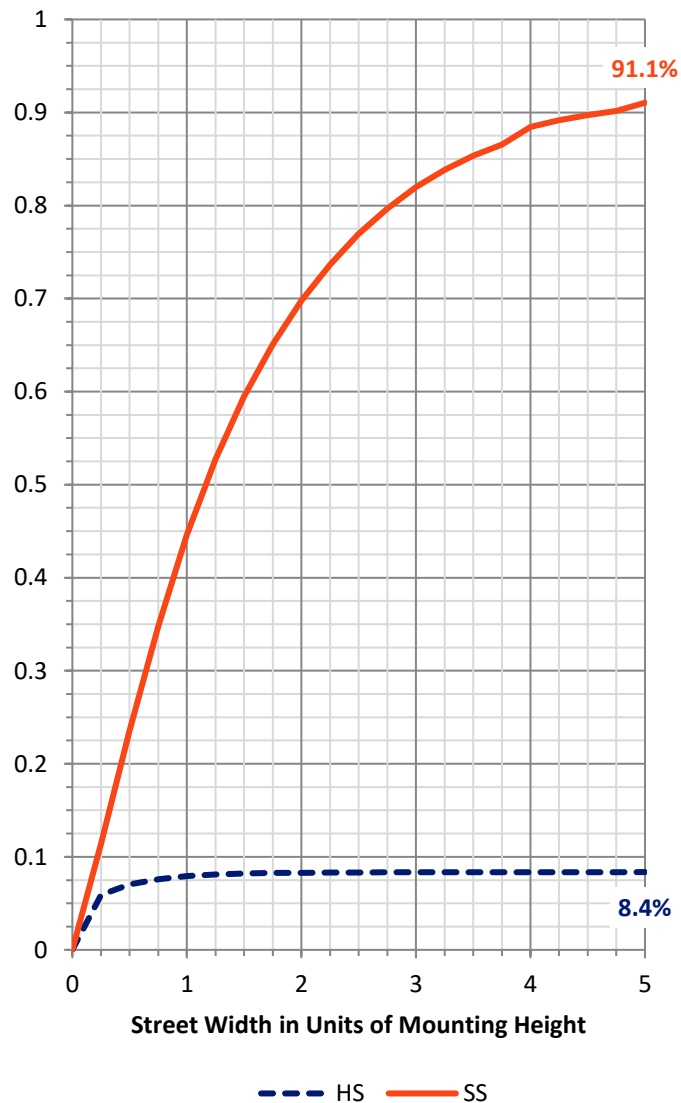
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2261.1	0.0	2261.1
	% Fixture	8.4	0.0	8.4
Street Side	Lumens	24607.9	0.0	24607.9
	% Fixture	91.6	0.0	91.6
Total	Lumens	26869.0	0.0	26869.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	421.1	1.6
10°-20°	1029.6	3.8
20°-30°	1637.6	6.1
30°-40°	2462.0	9.2
40°-50°	3755.9	14.0
50°-60°	5308.3	19.8
60°-70°	6658.5	24.8
70°-80°	4978.7	18.5
80°-90°	617.3	2.3
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°	26869.0	100.0
0°-180°	26869.0	100.0

Coefficient of Utilization



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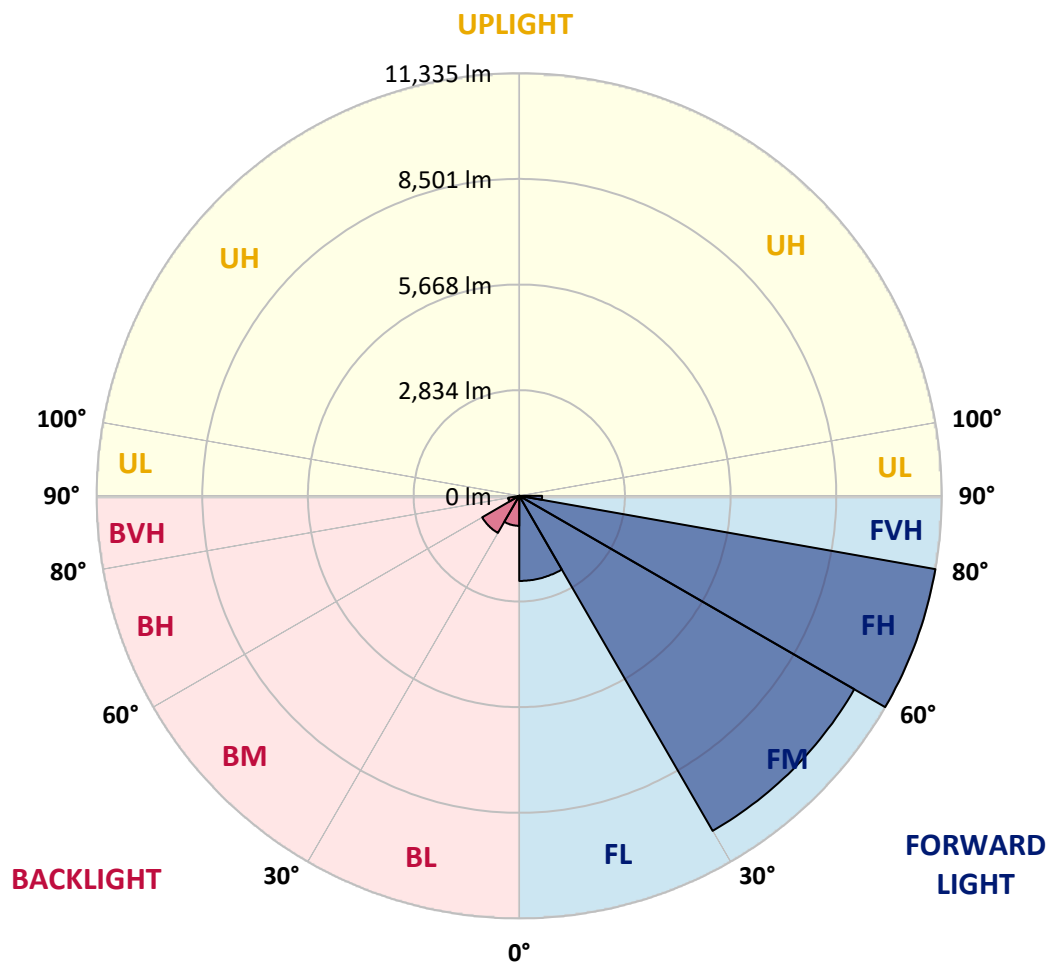
CATALOG NUMBER: GLEON-SA9A-830-U-SL4-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2283.2	8.5			
FM	(30°-60°)	10378.0	38.6			
FH	(60°-80°)	11335.1	42.2			G4/12000
FVH	(80°-90°)	611.6	2.3			G4/750
BL	(0°-30°)	805.1	3.0	B2/1000		
BM	(30°-60°)	1148.2	4.3	B2/2500		
BH	(60°-80°)	302.0	1.1	B1/500		G1/500
BVH	(80°-90°)	5.8	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 IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	38°	45°	55°	65°	75°	85°
0°	4941.1	4941.1	4941.1	4941.1	4941.1	4941.1	4941.1	4941.1	4941.1	4941.1	4941.1
2.5°	5244.6	5245.8	5233.5	5213.4	5187.7	5174.3	5152.0	5116.3	5078.4	5010.3	4936.7
5°	5351.8	5351.8	5336.1	5309.4	5268.1	5255.8	5213.4	5156.5	5078.4	4967.9	4844.0
7.5°	5340.6	5342.8	5321.6	5293.7	5252.5	5241.3	5190.0	5126.4	5029.3	4895.4	4736.9
10°	5282.6	5288.2	5271.4	5258.0	5220.1	5207.8	5159.8	5096.2	4999.1	4856.3	4674.4
12.5°	5223.4	5229.0	5234.6	5246.9	5223.4	5219.0	5181.0	5127.5	5034.9	4886.4	4681.1
15°	5185.5	5196.7	5236.8	5284.8	5290.4	5285.9	5261.4	5211.2	5117.4	4963.4	4729.1
17.5°	5185.5	5203.4	5287.0	5378.5	5410.9	5414.3	5393.1	5322.8	5211.2	5046.0	4773.7
20°	5229.0	5253.6	5384.1	5513.6	5567.1	5567.1	5525.8	5427.6	5297.1	5120.8	4803.9
22.5°	5340.6	5373.0	5537.0	5686.5	5743.4	5731.2	5675.4	5532.5	5386.4	5205.6	4841.8
25°	5560.4	5585.0	5755.7	5906.4	5940.9	5913.1	5842.8	5659.7	5500.2	5320.5	4911.0
27.5°	5843.9	5847.2	6023.5	6150.7	6129.5	6110.6	6022.4	5819.3	5664.2	5484.6	5030.4
30°	6155.2	6155.2	6310.3	6407.4	6342.7	6327.0	6238.9	6012.4	5874.0	5707.7	5200.0
32.5°	6456.5	6469.9	6596.0	6657.3	6584.8	6569.2	6483.3	6256.7	6153.0	6048.1	5464.5
35°	6747.7	6757.8	6877.2	6910.7	6841.5	6845.9	6784.6	6592.6	6553.6	6540.2	5862.8
37.5°	7030.0	7032.3	7153.9	7175.1	7140.5	7178.5	7184.0	7014.4	7087.0	7195.2	6424.1
40°	7287.8	7290.0	7410.6	7465.2	7524.4	7573.5	7617.0	7526.6	7766.5	8017.6	7092.5
42.5°	7494.3	7517.7	7670.6	7774.3	7930.6	8024.3	8142.6	8138.1	8575.5	8952.7	7900.4
45°	7676.1	7716.3	7929.4	8111.3	8379.1	8528.7	8713.9	8859.0	9486.1	9993.8	8718.4
47.5°	7916.1	7954.0	8197.3	8495.2	8852.3	9048.7	9355.5	9669.1	10487.0	11016.0	9517.3
50°	8254.2	8237.4	8477.3	8904.7	9363.4	9621.1	10058.6	10528.3	11480.2	11906.4	9987.1
52.5°	8614.6	8607.9	8785.3	9350.0	9965.9	10267.2	10845.2	11416.6	12429.8	12520.2	10202.5
55°	9061.0	9013.0	9162.5	9857.7	10681.2	11004.8	11685.5	12295.9	13186.4	12866.1	10310.7
57.5°	9528.5	9449.3	9592.1	10423.4	11488.0	11870.7	12616.1	13152.9	13689.6	13102.7	10309.6
60°	10011.7	9917.9	10087.6	11130.9	12490.1	12933.1	13624.9	13732.0	14159.4	13222.1	10233.7
62.5°	10415.6	10359.8	10612.0	11887.5	13609.3	14044.5	14387.1	14258.7	14555.6	13314.7	10056.3
65°	10843.0	10846.4	11253.7	12770.1	14798.8	15092.3	15121.3	14941.6	14887.0	13295.7	9456.0
67.5°	11421.0	11474.6	12154.2	13968.6	15956.0	16182.5	16180.3	15681.5	15129.1	12541.4	8124.7
70°	12032.5	12158.6	13191.9	15340.0	17219.2	17449.0	17330.7	16152.4	14245.3	10141.1	5750.1
72.5°	11929.9	12148.6	13768.9	16204.8	18126.4	18301.6	17532.7	14995.2	11259.2	5894.1	2448.2
75°	9203.8	9457.1	12625.1	15347.8	17174.5	17017.2	15064.4	11668.8	6153.0	1644.8	551.2
77.5°	4861.9	4996.9	8340.1	11692.2	13391.7	13062.5	10612.0	6473.2	1875.8	407.3	247.7
80°	2546.4	2577.7	3634.4	6633.9	8265.3	8267.6	6289.1	2843.3	773.3	208.7	166.3
82.5°	1363.6	1390.4	1920.4	3065.3	4330.7	3925.7	2408.1	1564.5	449.7	118.3	159.6
85°	328.1	333.6	1089.1	1400.4	1702.8	1216.3	715.3	1313.4	121.6	69.2	129.4
87.5°	126.1	128.3	403.9	605.9	434.1	281.2	334.8	489.9	15.6	26.8	20.1
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: P323993

CATALOG NUMBER: GLEON-SA9A-830-U-SL4-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	4941.1	4941.1	4941.1	4941.1	4941.1	4941.1	4941.1	4941.1	4941.1	4941.1	4941.1
2.5°	4892.0	4863.0	4791.6	4701.2	4620.9	4562.8	4475.8	4418.9	4380.9	4379.8	4365.3
5°	4768.2	4709.0	4555.0	4372.0	4205.8	4056.2	3879.9	3740.4	3636.7	3619.9	3584.2
7.5°	4635.4	4538.3	4301.7	4016.1	3737.1	3453.7	3124.5	2920.3	2745.1	2661.4	2652.4
10°	4553.9	4417.8	4081.9	3669.0	3231.6	2770.7	2340.0	2042.1	1826.7	1765.3	1719.6
12.5°	4537.2	4357.5	3912.3	3343.2	2718.3	2109.0	1632.5	1315.6	1143.8	1089.1	1074.6
15°	4553.9	4329.6	3769.4	3020.7	2198.3	1496.4	1095.8	911.7	847.0	831.3	830.2
17.5°	4564.0	4296.1	3607.6	2662.5	1693.9	1069.0	839.1	785.6	775.5	774.4	776.7
20°	4562.8	4244.8	3414.6	2263.0	1259.8	840.3	758.8	747.6	745.4	746.5	745.4
22.5°	4555.0	4184.6	3202.6	1851.2	951.8	751.0	724.2	717.5	716.4	716.4	716.4
25°	4569.5	4136.6	2969.4	1457.3	784.5	709.7	693.0	687.4	686.3	686.3	684.0
27.5°	4622.0	4109.8	2713.8	1121.5	708.6	672.9	659.5	658.4	655.0	653.9	656.1
30°	4706.8	4109.8	2433.7	872.6	662.8	634.9	624.9	622.7	621.5	620.4	621.5
32.5°	4856.3	4141.0	2128.0	725.3	619.3	592.5	585.8	589.2	585.8	585.8	585.8
35°	5126.4	4234.8	1807.7	632.7	573.6	551.2	544.5	549.0	546.8	546.8	545.7
37.5°	5520.3	4408.8	1485.2	576.9	533.4	510.0	501.0	507.7	505.5	505.5	504.4
40°	6000.1	4662.2	1178.4	534.5	494.3	469.8	462.0	465.3	459.7	459.7	462.0
42.5°	6592.6	4983.5	910.6	493.2	455.3	431.8	427.4	424.0	414.0	408.4	409.5
45°	7251.0	5318.3	709.7	453.0	418.5	399.5	392.8	383.9	367.1	356.0	357.1
47.5°	7839.1	5576.1	576.9	414.0	385.0	370.5	360.4	343.7	319.1	305.8	306.9
50°	8148.2	5615.1	491.0	374.9	353.7	339.2	324.7	299.1	270.0	255.5	254.4
52.5°	8227.4	5432.1	427.4	339.2	322.5	305.8	286.8	252.2	219.8	204.2	202.0
55°	8256.4	5153.1	370.5	305.8	289.0	270.0	245.5	206.4	176.3	160.7	159.6
57.5°	8160.4	4736.9	325.8	275.6	255.5	232.1	202.0	165.2	136.1	123.9	123.9
60°	7947.3	4173.4	291.2	243.3	220.9	194.2	162.9	128.3	101.5	91.5	91.5
62.5°	7522.2	3443.6	258.9	209.8	188.6	160.7	131.7	97.1	71.4	65.8	67.0
65°	6719.8	2612.3	226.5	179.7	160.7	132.8	102.7	69.2	48.0	48.0	50.2
67.5°	5480.1	1814.4	193.0	152.9	138.4	108.2	78.1	48.0	33.5	37.9	42.4
70°	3627.7	1017.7	165.2	126.1	118.3	85.9	58.0	32.4	26.8	35.7	43.5
72.5°	1369.2	396.1	138.4	101.5	102.7	65.8	41.3	24.5	24.5	39.1	51.3
75°	381.6	194.2	99.3	74.8	80.3	48.0	30.1	21.2	23.4	44.6	60.3
77.5°	224.3	142.8	64.7	43.5	54.7	33.5	20.1	16.7	20.1	37.9	58.0
80°	180.8	75.9	37.9	22.3	30.1	19.0	13.4	10.0	5.6	14.5	30.1
82.5°	180.8	45.8	17.9	15.6	15.6	10.0	6.7	4.5	1.1	0.0	7.8
85°	121.6	19.0	11.2	10.0	7.8	3.3	2.2	1.1	0.0	0.0	0.0
87.5°	20.1	7.8	4.5	2.2	1.1	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

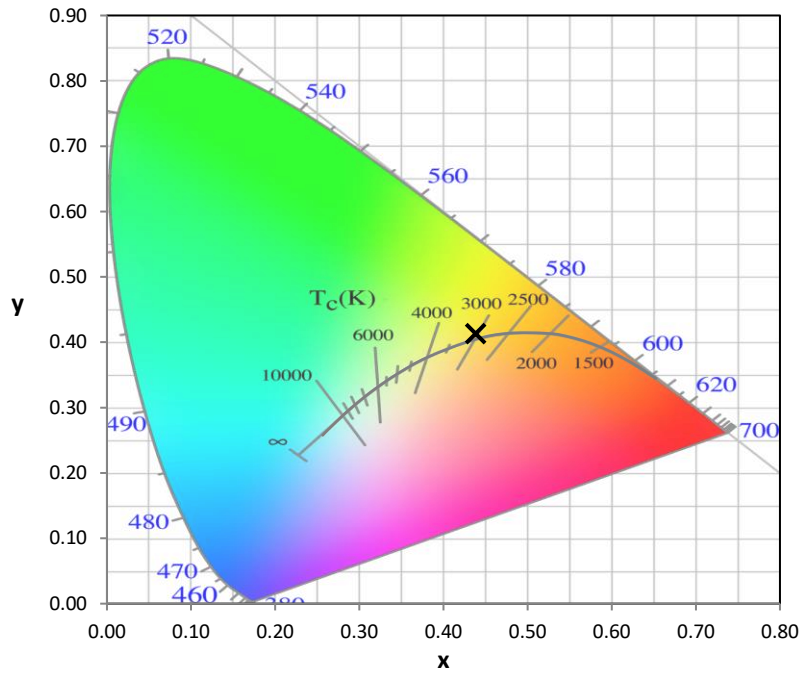
Stabilization Time: 20M
 Operation Time: 1H 20M
 Sphere Temperature (°C): 24.2

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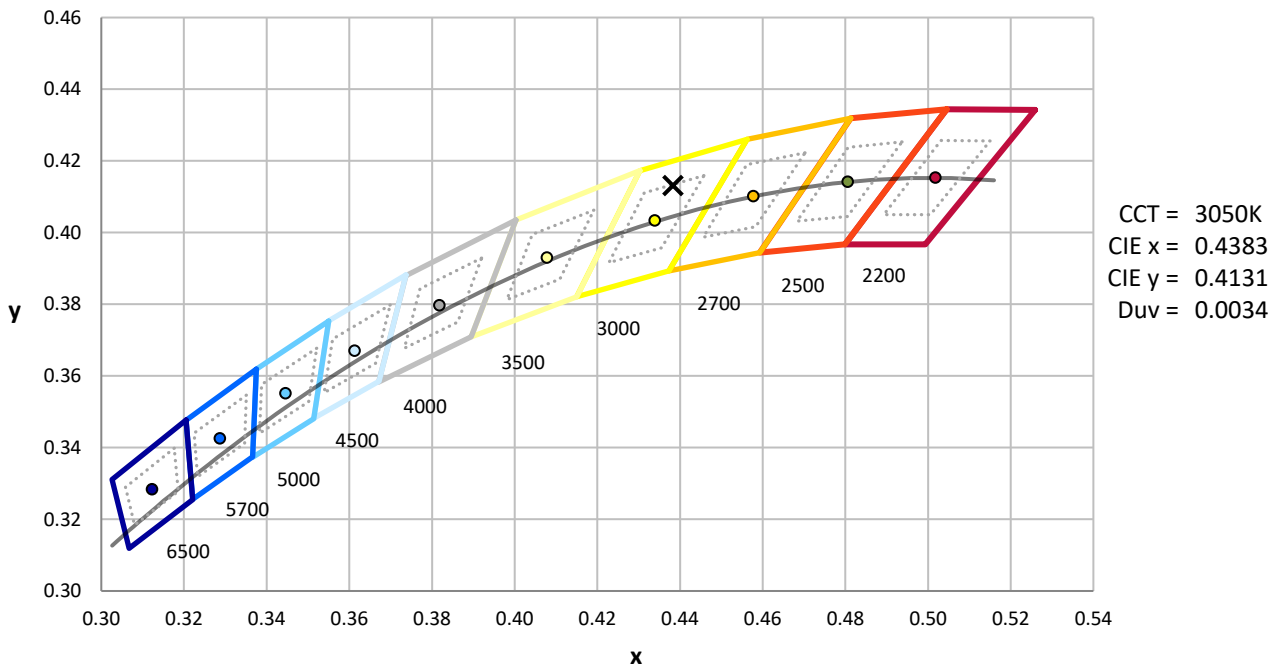
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085	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

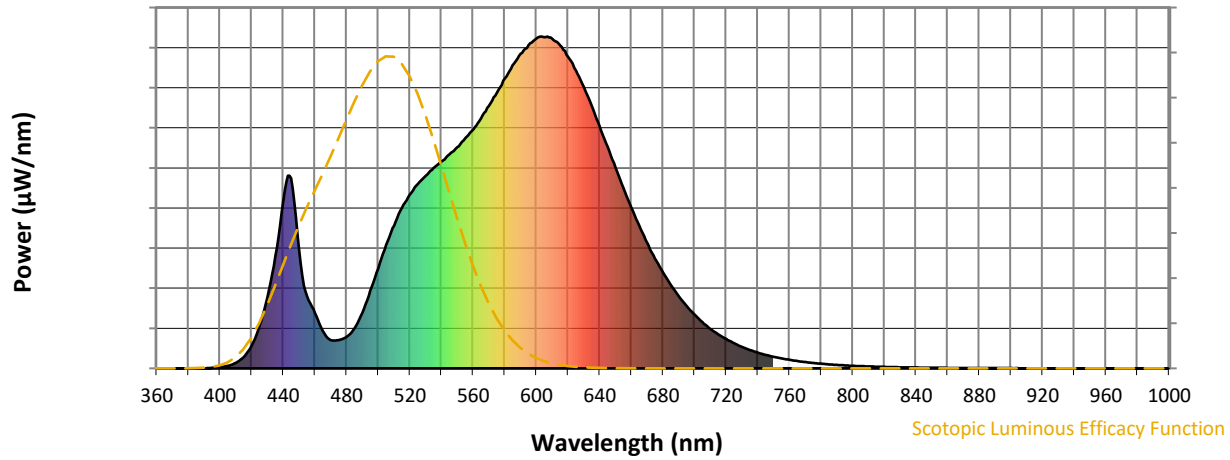


Photopic Lumens: NR

λ (nm)	Power $\text{W}^\wedge/\text{nm}$	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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Scotopic Flux vs. Wavelength



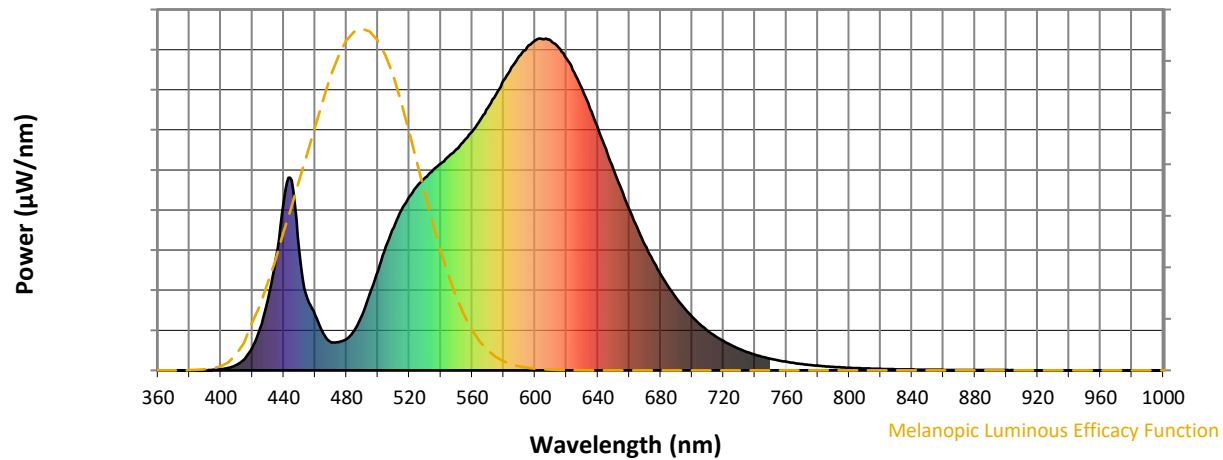
Scotopic Lumens: NR

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			

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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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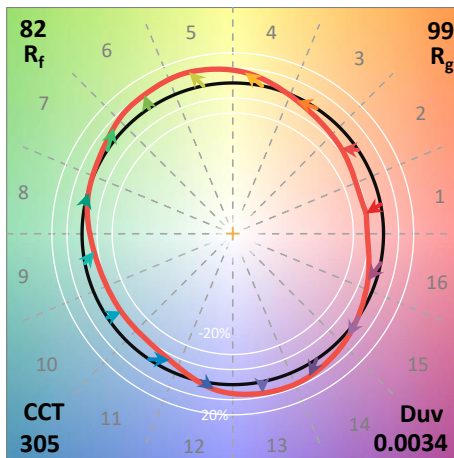
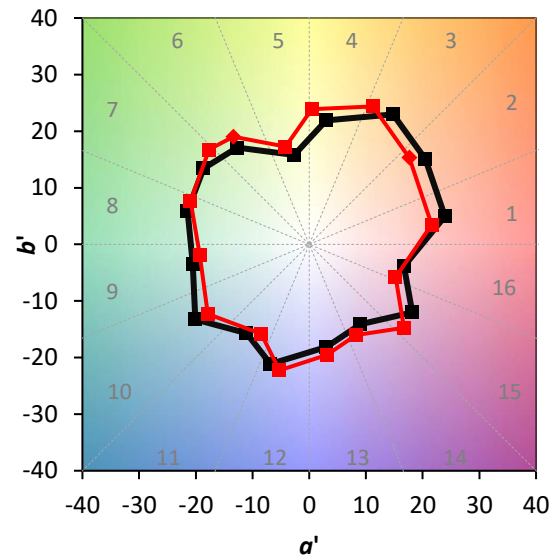
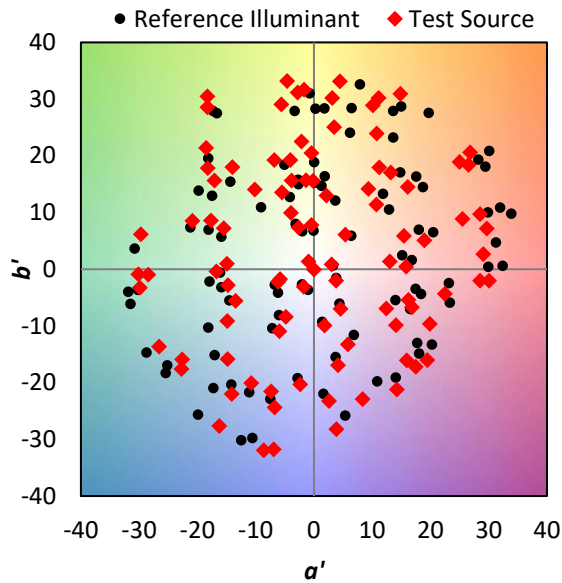
TM-30-18

Summary

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

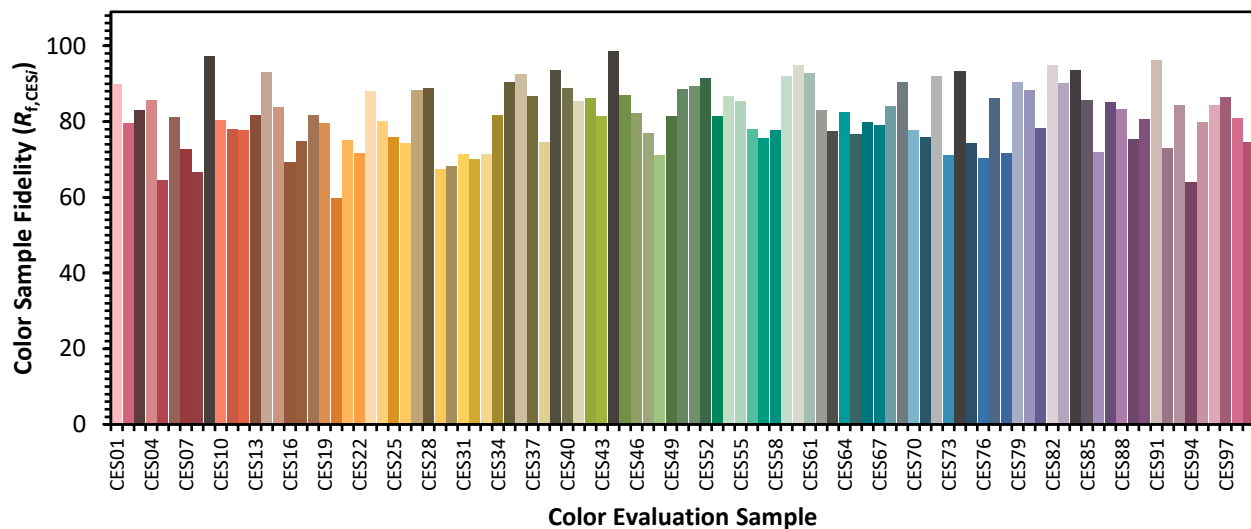


Color Vector Graphics

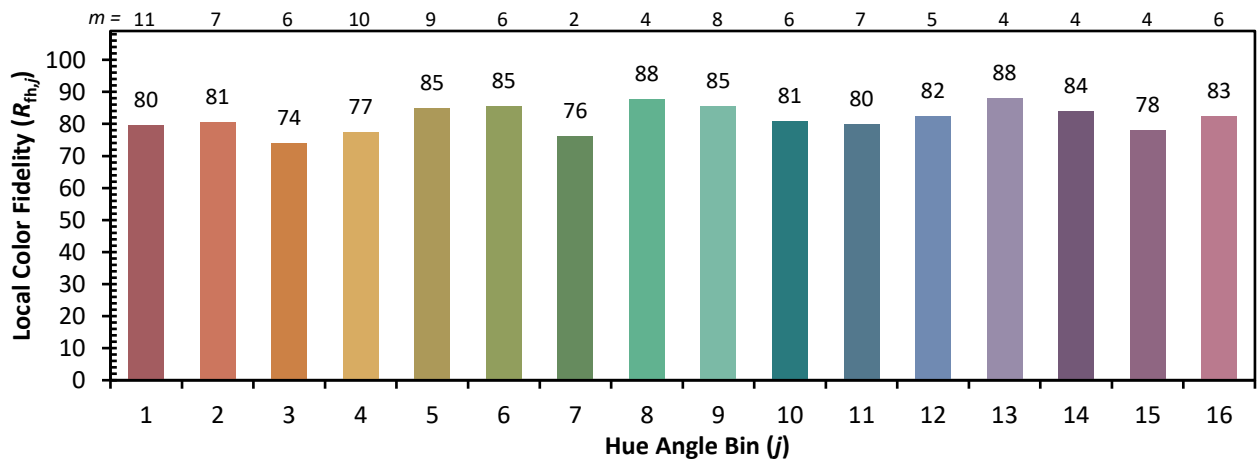
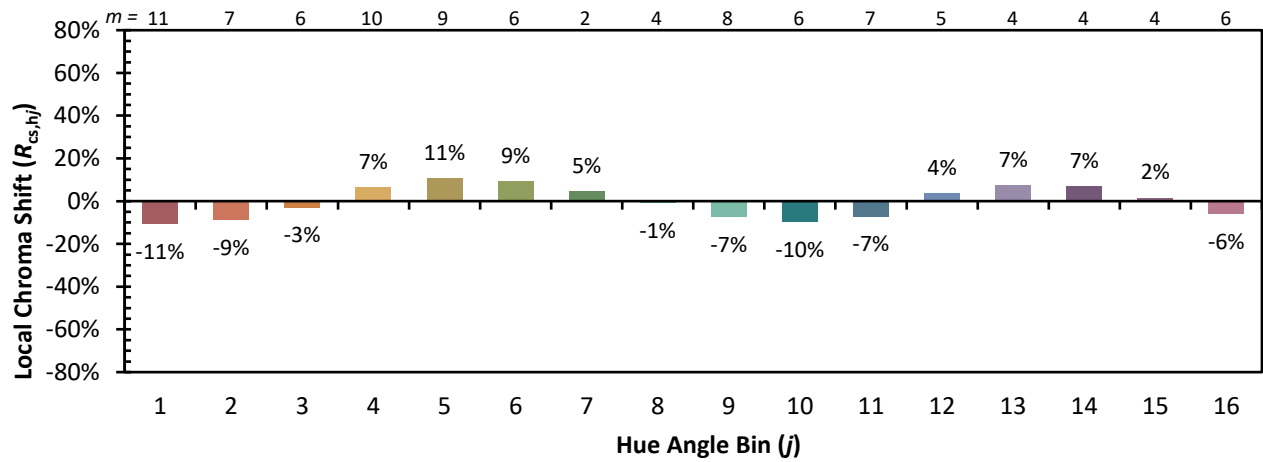


Individual Sample Fidelity Index ($R_{f,i}$)

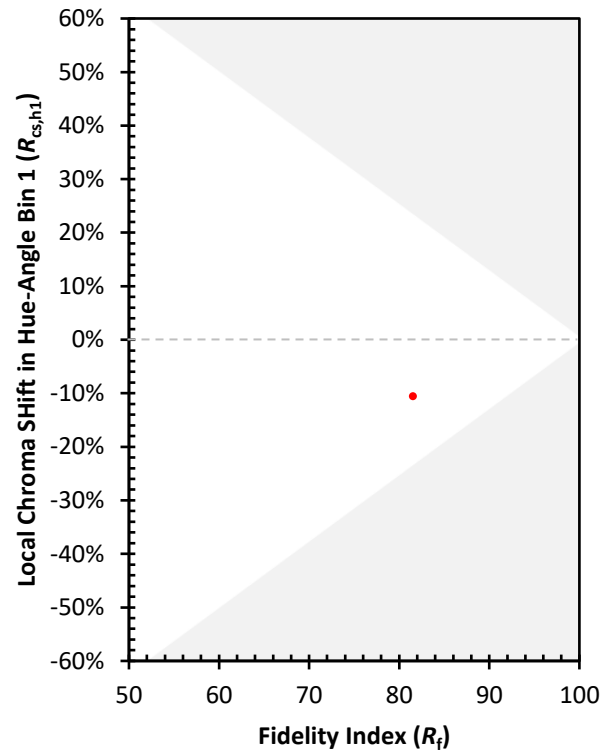
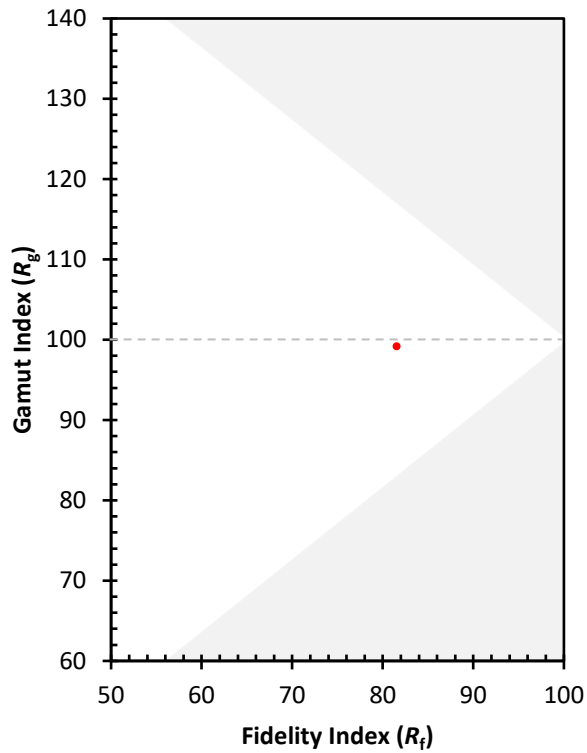
CES01 = 86	CES26 = 74	CES51 = 89	CES76 = 70
CES02 = 63	CES27 = 88	CES52 = 92	CES77 = 86
CES03 = 31	CES28 = 89	CES53 = 81	CES78 = 72
CES04 = 70	CES29 = 67	CES54 = 87	CES79 = 90
CES05 = 50	CES30 = 68	CES55 = 85	CES80 = 88
CES06 = 51	CES31 = 71	CES56 = 78	CES81 = 78
CES07 = 42	CES32 = 70	CES57 = 76	CES82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