

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: P323353

Luminaire Tested: **GLEON-SA9A-830-U-SL2-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P323353
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-21)
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-SL2-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(9) 80 CRI, 3000K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II SPILL
LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 27421 lumens
Efficiency: N/A
Efficacy: 94.6 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type III - Medium
BUG Rating: B3 - U0 - G4

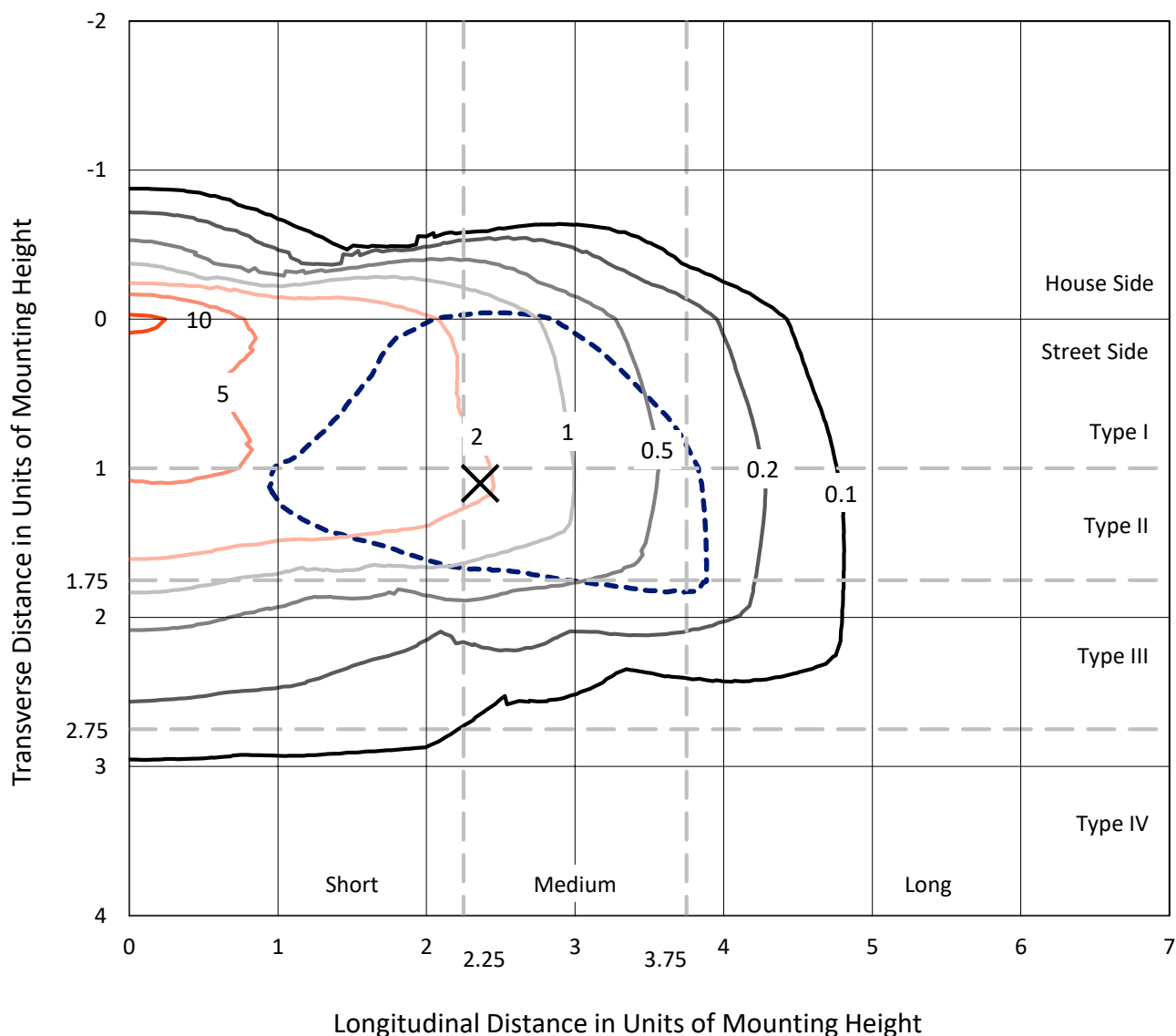
Input Watts (W): 290
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

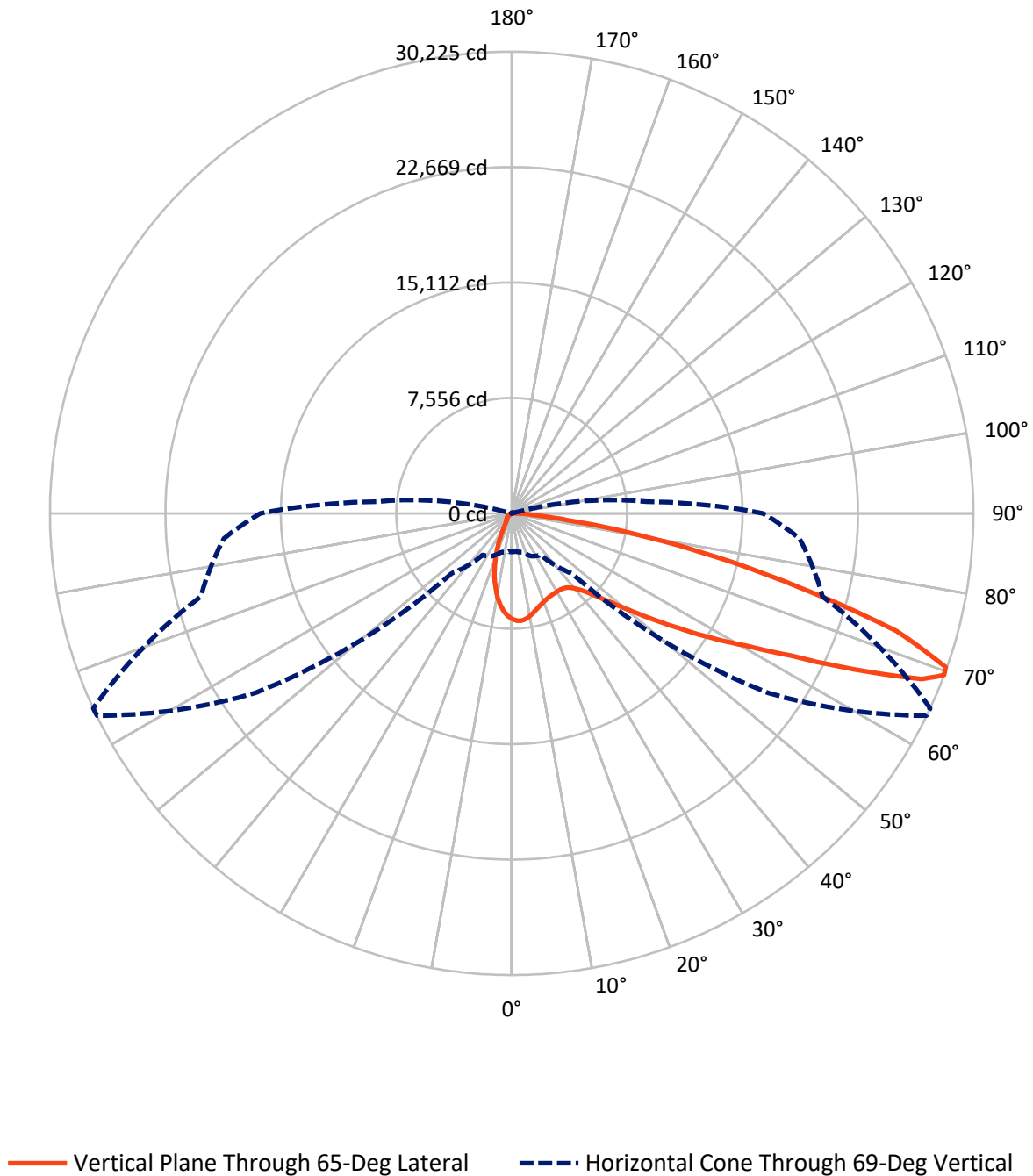
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 11.1 fc
 Type III - Medium - N/A

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Luminous Intensity Polar Plot



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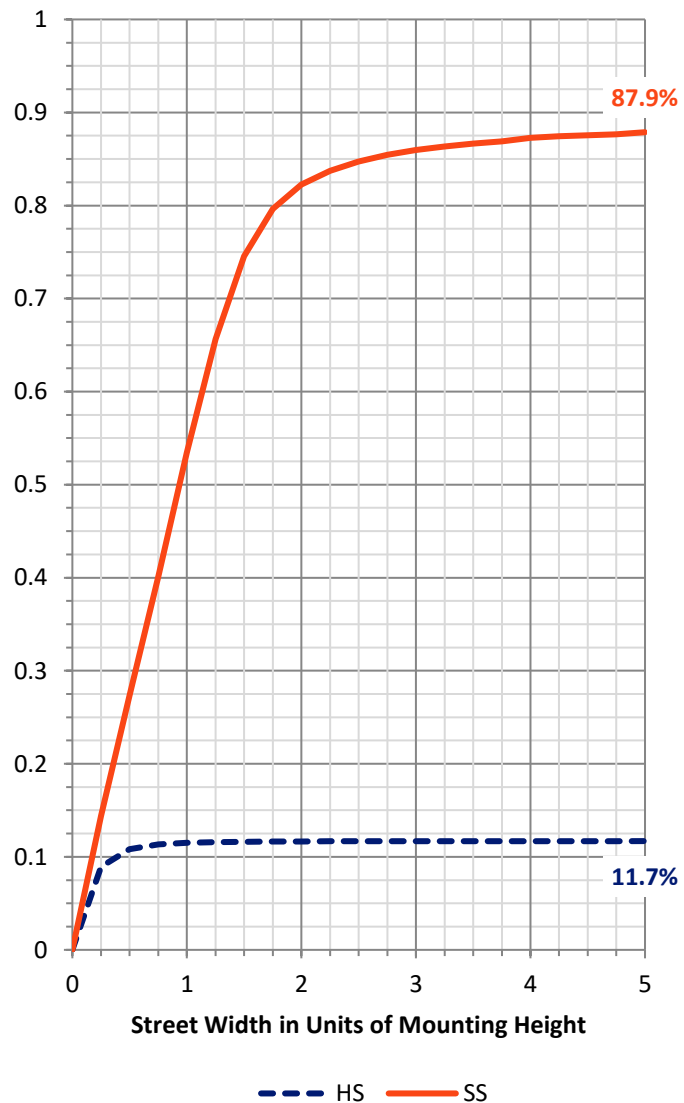
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3232.3	0.0	3232.3
	% Fixture	11.8	0.0	11.8
Street Side	Lumens	24188.7	0.0	24188.7
	% Fixture	88.2	0.0	88.2
Total	Lumens	27421.0	0.0	27421.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	579.4	2.1
10°-20°	1268.4	4.6
20°-30°	1756.8	6.4
30°-40°	2449.5	8.9
40°-50°	3807.4	13.9
50°-60°	6112.3	22.3
60°-70°	6914.1	25.2
70°-80°	4060.7	14.8
80°-90°	472.4	1.7
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°	27421.0	100.0
0°-180°	27421.0	100.0

Coefficient of Utilization



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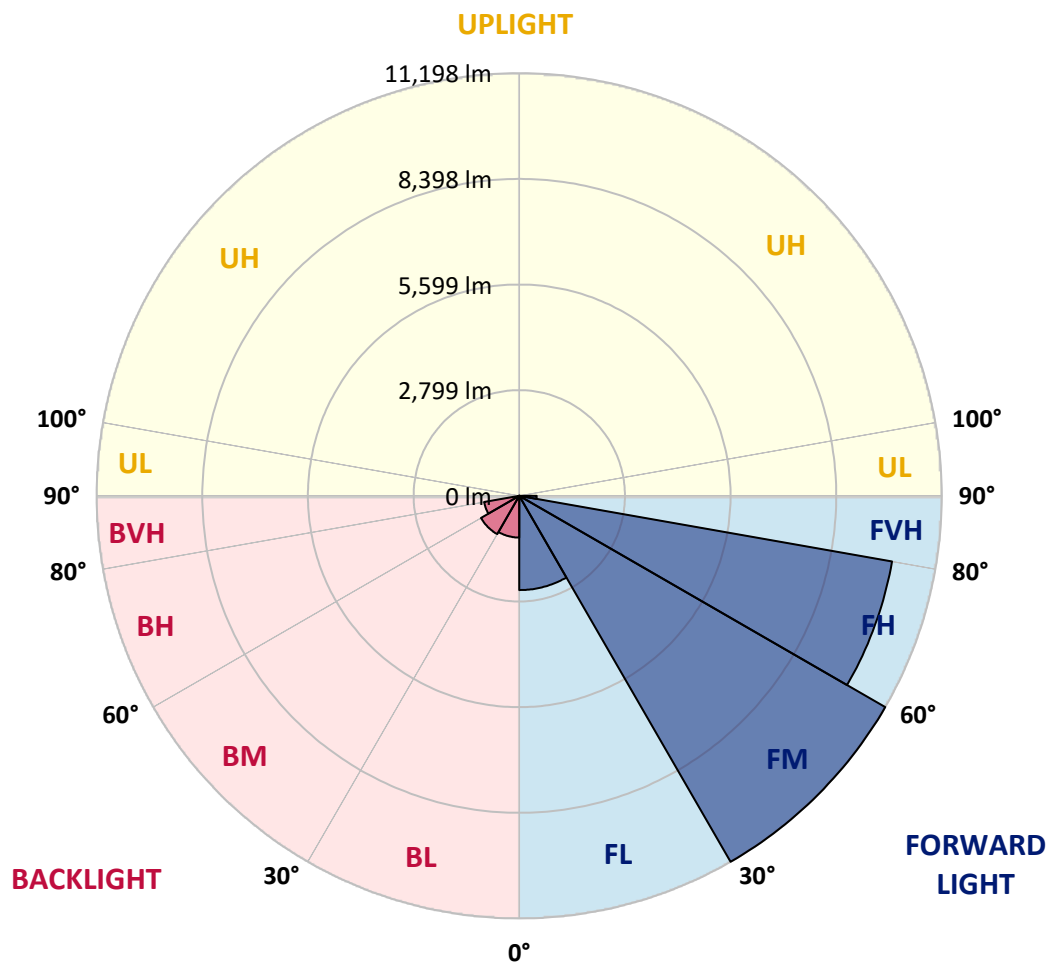
CATALOG NUMBER: GLEON-SA9A-830-U-SL2-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2498.7	9.1			
FM	(30°-60°)	11197.9	40.8			
FH	(60°-80°)	10030.3	36.6			G4/12000
FVH	(80°-90°)	461.7	1.7			G3/500
BL	(0°-30°)	1105.9	4.0	B3/2500		
BM	(30°-60°)	1171.3	4.3	B2/2500		
BH	(60°-80°)	944.4	3.4	B2/1000		G2/1000
BVH	(80°-90°)	10.6	0.0			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4

Type III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	64°	65°	75°	85°
0°	6929.3	6929.3	6929.3	6929.3	6929.3	6929.3	6929.3	6929.3	6929.3	6929.3	6929.3
2.5°	6990.8	6973.4	6987.3	7017.5	7032.6	7032.6	7044.2	7030.3	7034.9	7001.3	6952.5
5°	6553.4	6526.7	6565.0	6649.7	6754.1	6843.5	6975.7	7045.4	7052.3	7053.5	6996.6
7.5°	6082.3	6057.9	6114.8	6214.6	6349.2	6515.1	6746.0	6947.9	6959.5	7068.6	7026.8
10°	5699.4	5682.0	5748.1	5854.9	6012.7	6198.3	6481.5	6762.3	6795.9	7037.2	7022.2
12.5°	5395.4	5381.5	5444.1	5567.1	5728.4	5933.8	6229.7	6555.7	6601.0	6966.5	6999.0
15°	5173.8	5171.5	5223.7	5342.0	5520.7	5712.2	6015.0	6364.3	6416.5	6889.9	6995.5
17.5°	5057.8	5061.2	5099.5	5200.5	5353.6	5543.9	5834.0	6203.0	6259.8	6821.4	7012.9
20°	5046.2	5049.6	5070.5	5127.4	5251.5	5419.8	5686.6	6067.2	6126.4	6770.4	7040.7
22.5°	5148.3	5145.9	5151.7	5145.9	5215.6	5343.2	5589.2	5962.8	6031.3	6736.7	7062.8
25°	5344.4	5340.9	5338.6	5295.6	5249.2	5317.7	5548.6	5903.6	5968.6	6712.4	7075.5
27.5°	5617.0	5614.7	5611.2	5540.5	5401.2	5358.3	5553.2	5881.6	5936.1	6692.6	7073.2
30°	5975.6	5991.8	5987.2	5888.5	5671.6	5482.4	5601.9	5870.0	5917.5	6654.3	7048.8
32.5°	6396.8	6429.2	6454.8	6349.2	6077.7	5728.4	5714.5	5882.7	5917.5	6625.3	7004.8
35°	6834.2	6876.0	6969.9	6932.8	6575.4	6098.6	5908.3	5959.3	5988.3	6641.6	6983.9
37.5°	7264.7	7314.6	7518.8	7626.7	7227.5	6588.2	6209.9	6148.5	6163.5	6740.2	7007.1
40°	7764.8	7840.2	8150.0	8324.0	8006.1	7243.8	6661.3	6473.3	6479.1	6957.2	7115.0
42.5°	8421.5	8499.2	8834.6	9107.2	8883.3	8072.2	7273.9	6969.9	6964.1	7363.3	7369.1
45°	9222.1	9303.3	9650.2	9953.1	9852.1	9053.9	8058.3	7695.1	7688.2	8003.8	7850.6
47.5°	10129.5	10209.5	10519.3	10831.4	10940.5	10200.2	9057.3	8684.9	8668.6	8893.7	8594.4
50°	10908.0	10960.2	11245.7	11665.7	12157.7	11608.8	10300.0	9941.5	9924.1	10076.1	9686.2
52.5°	11191.1	11221.3	11511.4	12099.6	13327.3	13516.4	11932.6	11470.8	11458.0	11524.1	11140.1
55°	10617.9	10672.5	11028.7	11901.2	13960.8	15672.2	13993.3	13364.4	13268.1	13125.4	12660.1
57.5°	9056.2	9143.2	9526.1	10686.4	13664.9	17382.5	17021.7	15506.3	15364.7	14492.2	13895.8
60°	6785.5	6892.2	7210.1	8462.1	12085.7	17991.7	20330.8	17893.0	17574.0	15580.6	15031.7
62.5°	4656.3	4709.7	4925.5	5741.2	8900.7	16993.8	23099.3	21089.7	20507.2	16764.1	16260.5
65°	3556.3	3574.9	3663.1	3943.9	5300.3	13804.1	24200.5	25307.4	24603.1	18179.6	17535.7
67.5°	2866.0	2850.9	2972.7	3374.2	3549.4	8421.5	22916.0	29297.7	28968.1	20072.1	18819.0
69°	2527.1	2506.3	2630.4	3096.9	3333.6	5567.1	20486.3	30203.9	30224.8	21071.1	18907.2
70°	2274.2	2288.1	2411.1	2932.1	3260.5	4369.7	18165.7	29973.0	30137.7	21444.7	18378.1
72.5°	1518.8	1556.0	1803.1	2434.3	3135.1	3306.9	10968.4	25720.5	26354.0	20603.5	15767.4
75°	856.3	884.2	1177.7	1835.6	2954.1	3149.1	5793.4	18948.9	19561.6	17229.4	12158.8
77.5°	420.0	435.1	666.0	1184.7	2470.3	3000.5	3286.0	12871.3	13570.9	11245.7	6877.1
80°	177.5	185.6	333.0	731.0	1766.0	2863.6	2440.1	7921.4	8008.4	4405.7	1832.1
82.5°	68.5	70.8	140.4	456.0	1122.0	2232.4	2041.0	3755.9	3665.4	829.6	417.7
85°	8.1	9.3	51.1	273.8	624.2	1148.7	1658.1	1618.6	1498.0	164.8	214.7
87.5°	0.0	0.0	3.5	83.5	185.6	538.4	862.1	671.8	605.7	53.4	111.4
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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CATALOG NUMBER: GLEON-SA9A-830-U-SL2-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	6929.3	6929.3	6929.3	6929.3	6929.3	6929.3	6929.3	6929.3	6929.3	6929.3	6929.3
2.5°	6911.9	6900.3	6837.7	6747.2	6661.3	6554.6	6452.4	6391.0	6342.2	6309.7	6348.0
5°	6930.5	6879.4	6689.2	6445.5	6206.5	5937.3	5686.6	5474.3	5390.8	5297.9	5339.7
7.5°	6924.7	6828.4	6486.1	6052.1	5613.6	5159.9	4730.6	4399.9	4228.1	4059.9	4102.8
10°	6895.7	6733.2	6214.6	5571.8	4915.0	4263.0	3653.8	3190.8	2932.1	2697.7	2731.4
12.5°	6831.9	6605.6	5894.3	5021.8	4143.4	3283.7	2570.1	1977.2	1659.2	1518.8	1536.2
15°	6793.6	6481.5	5555.5	4464.8	3319.6	2287.0	1571.1	1168.4	1023.4	977.0	982.8
17.5°	6775.0	6361.9	5205.1	3827.8	2477.2	1456.2	1015.3	895.8	864.4	856.3	858.6
20°	6756.4	6241.3	4844.3	3197.8	1706.8	979.3	834.3	799.4	787.8	777.4	779.7
22.5°	6725.1	6125.2	4456.7	2559.6	1151.0	794.8	751.9	718.2	693.9	681.1	683.4
25°	6686.8	6003.4	4061.1	1906.4	840.1	708.9	668.3	620.8	591.8	568.5	569.7
27.5°	6625.3	5853.7	3652.6	1387.7	705.5	634.7	580.2	527.9	479.2	452.5	452.5
30°	6539.5	5684.3	3199.0	993.2	632.4	561.6	495.4	430.5	378.3	353.9	351.6
32.5°	6444.3	5508.0	2740.6	753.0	574.4	493.1	417.7	349.3	302.8	283.1	282.0
35°	6363.1	5317.7	2283.5	631.2	516.3	427.0	344.6	286.6	249.5	233.2	232.1
37.5°	6310.9	5127.4	1837.9	563.9	464.1	365.5	288.9	236.7	210.0	197.3	196.1
40°	6302.8	4985.8	1430.7	512.9	415.4	311.0	241.3	200.7	176.4	162.4	161.3
42.5°	6408.4	4904.6	1097.6	469.9	365.5	263.4	205.4	171.7	146.2	132.3	131.1
45°	6685.7	4930.1	844.7	431.6	315.6	222.8	174.0	142.7	119.5	109.1	106.7
47.5°	7191.6	5106.5	671.8	393.3	268.0	189.1	148.5	118.4	98.6	88.2	87.0
50°	8092.0	5520.7	561.6	351.6	223.9	161.3	123.0	96.3	80.1	70.8	69.6
52.5°	9287.1	6258.7	501.3	311.0	185.6	136.9	100.9	76.6	62.7	55.7	54.5
55°	10605.2	7152.1	461.8	266.9	152.0	113.7	80.1	60.3	48.7	42.9	40.6
57.5°	11892.0	7926.0	424.7	223.9	126.5	92.8	63.8	47.6	38.3	32.5	31.3
60°	13074.3	8637.3	381.7	179.8	103.3	73.1	49.9	37.1	30.2	24.4	24.4
62.5°	14340.2	9187.3	322.6	140.4	84.7	55.7	40.6	33.6	24.4	20.9	19.7
65°	15681.5	9595.7	252.9	109.1	66.1	41.8	33.6	34.8	19.7	15.1	13.9
67.5°	16672.4	9514.5	186.8	85.9	51.1	32.5	32.5	37.1	17.4	11.6	10.4
69°	16454.3	8854.3	156.6	74.3	44.1	27.8	30.2	37.1	16.2	10.4	9.3
70°	15821.9	8123.3	138.1	66.1	39.5	25.5	29.0	36.0	15.1	10.4	9.3
72.5°	13176.4	6118.3	107.9	49.9	31.3	20.9	24.4	31.3	15.1	10.4	8.1
75°	9911.3	3916.0	82.4	36.0	23.2	16.2	18.6	23.2	15.1	9.3	8.1
77.5°	5393.1	1412.1	59.2	24.4	16.2	12.8	12.8	17.4	13.9	7.0	4.6
80°	1386.6	355.1	37.1	16.2	12.8	9.3	8.1	11.6	8.1	1.2	0.0
82.5°	342.3	80.1	19.7	11.6	9.3	3.5	3.5	5.8	3.5	0.0	0.0
85°	188.0	39.5	12.8	8.1	4.6	0.0	0.0	1.2	0.0	0.0	0.0
87.5°	96.3	11.6	3.5	2.3	1.2	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

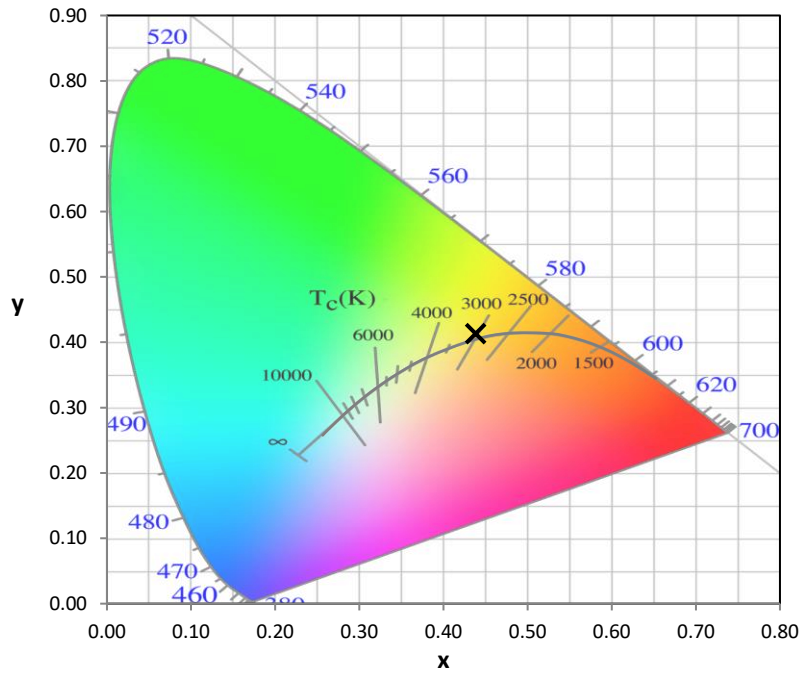
Stabilization Time: 20M
 Operation Time: 1H 20M
 Sphere Temperature (°C): 24.2

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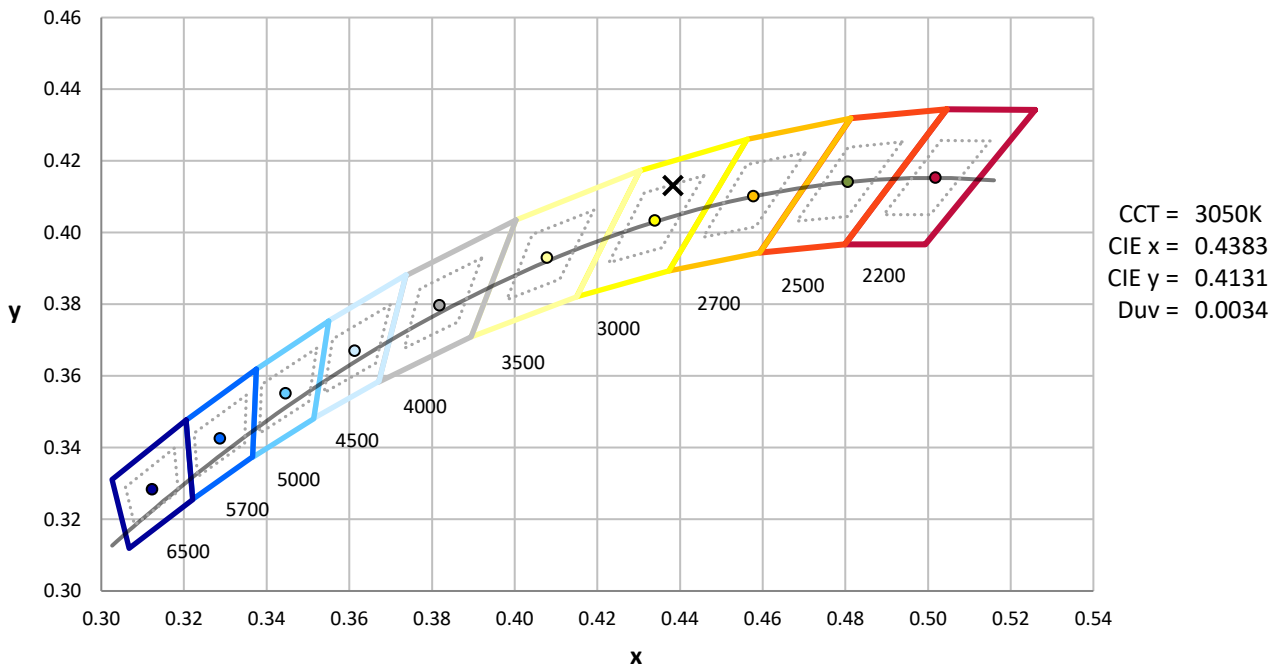
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

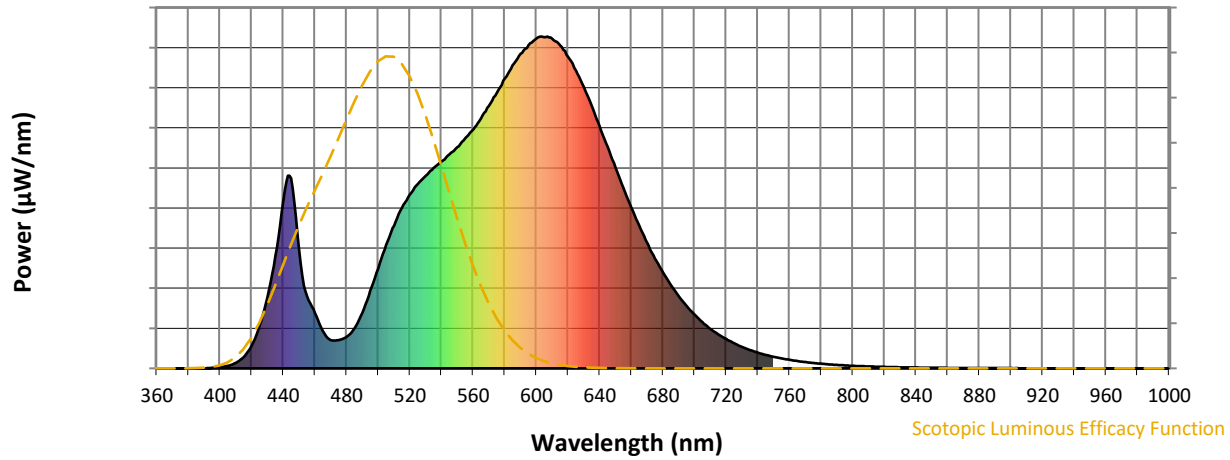


Photopic Lumens: NR

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



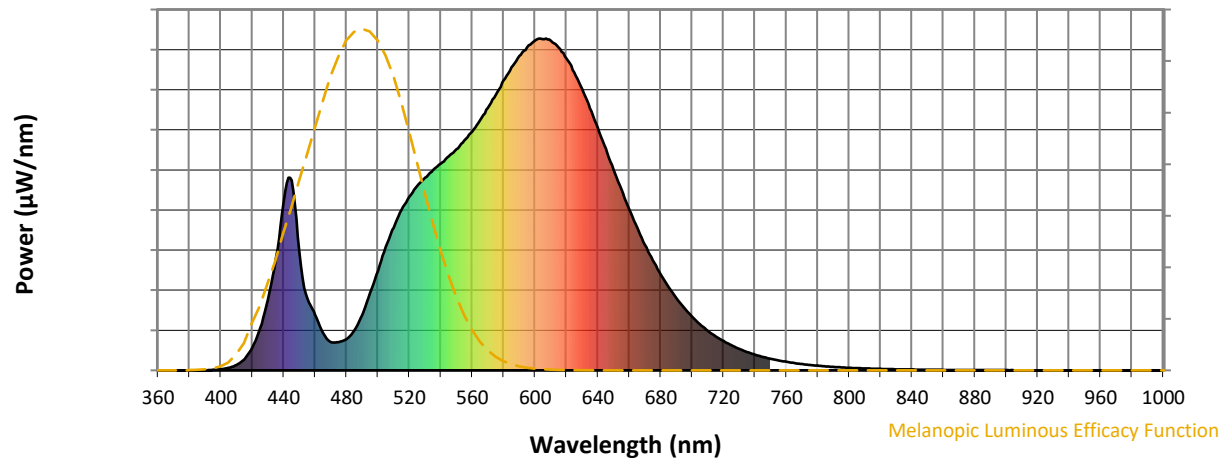
Scotopic Lumens: NR

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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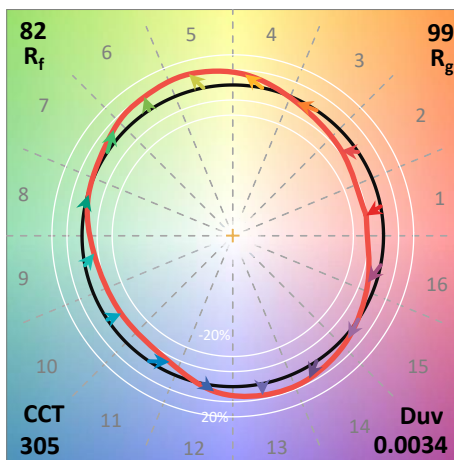
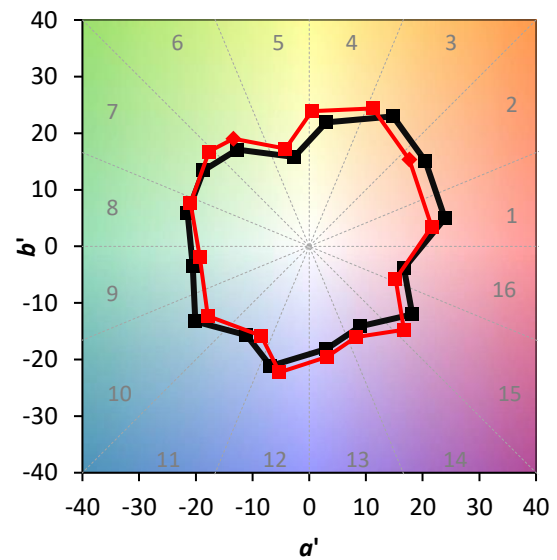
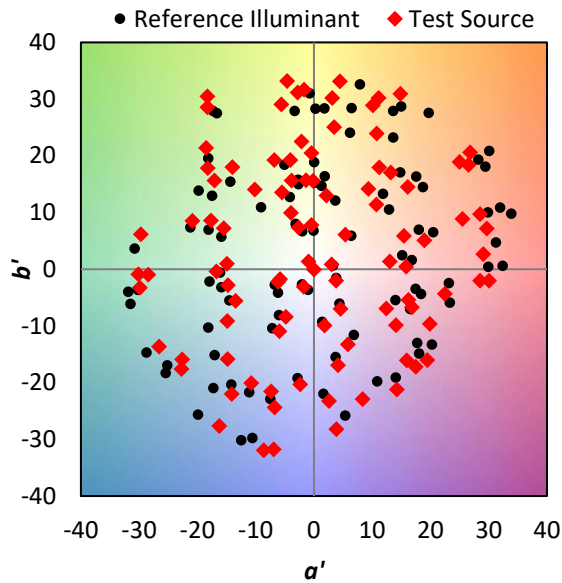
TM-30-18

Summary

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

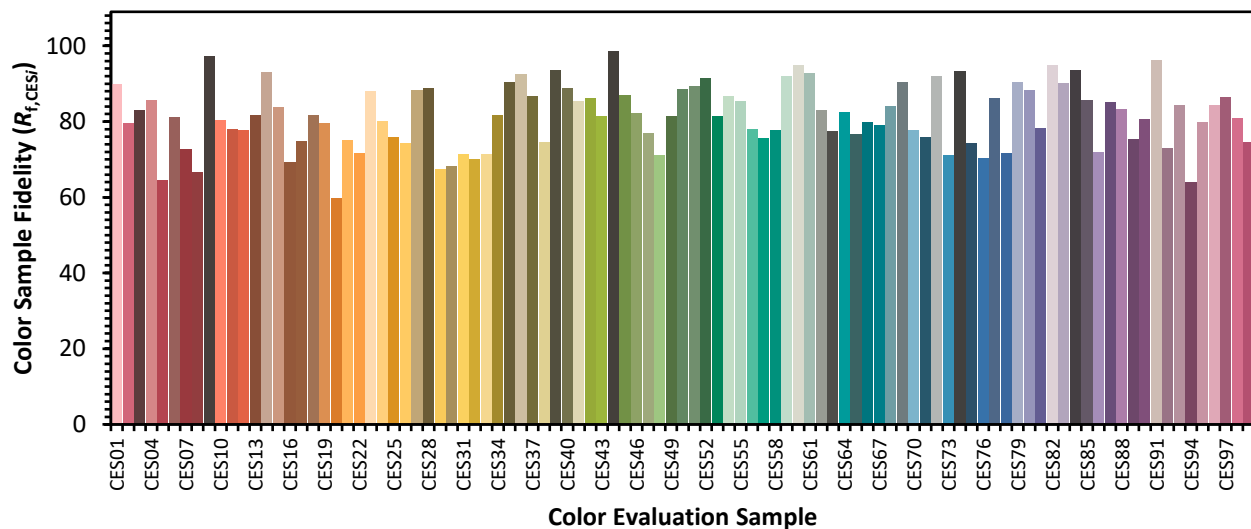


Color Vector Graphics

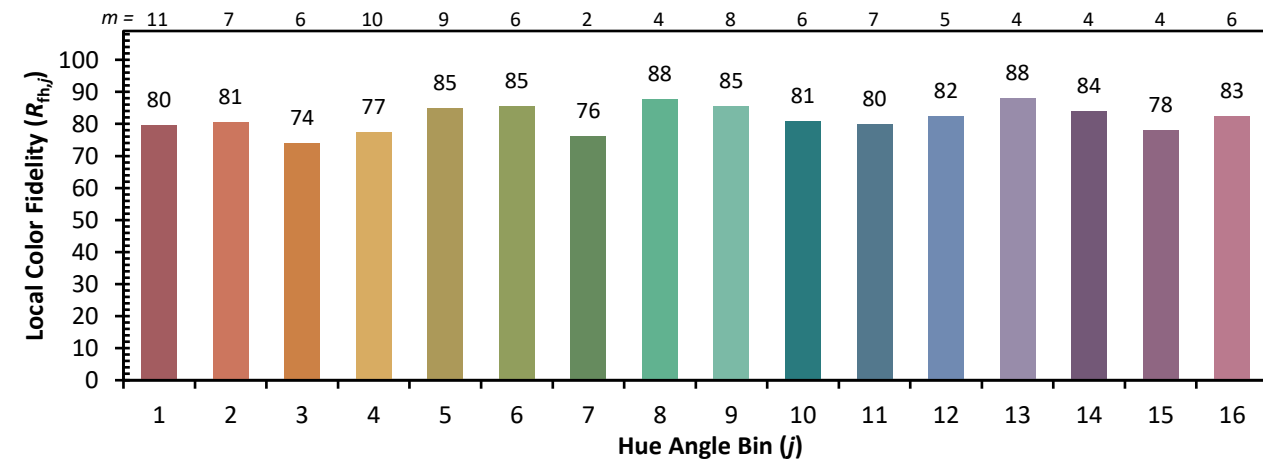
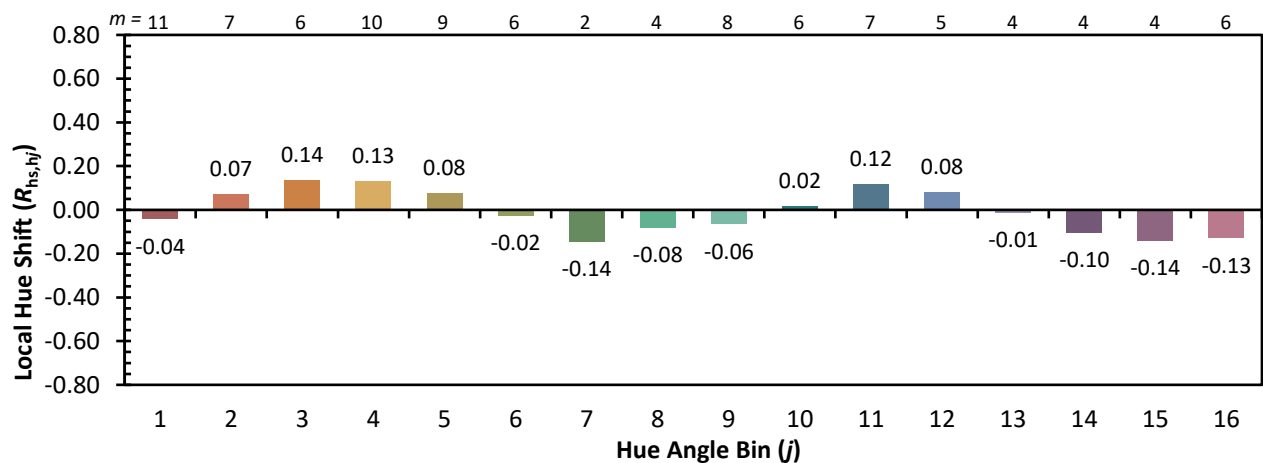
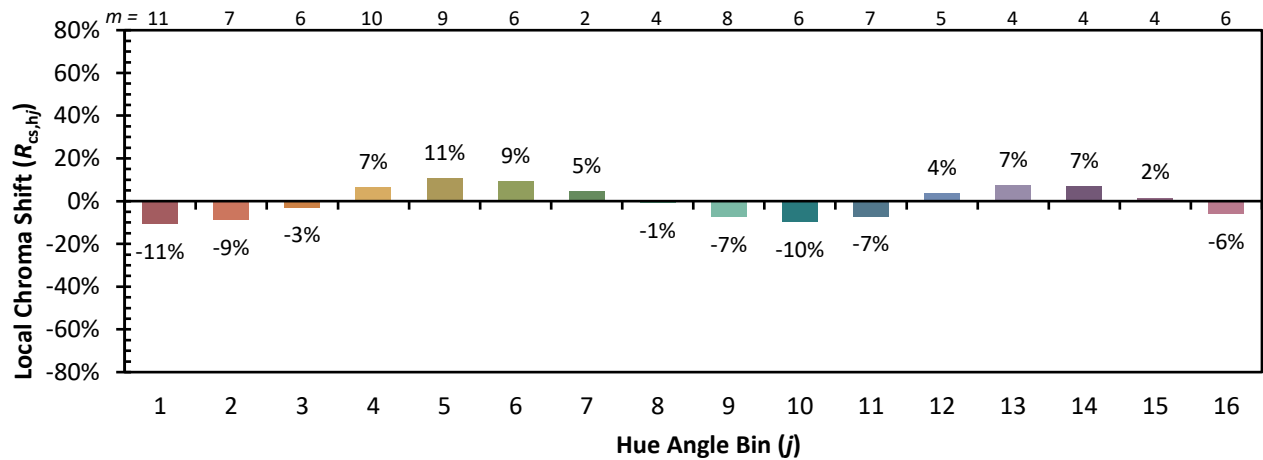


Individual Sample Fidelity Index ($R_{f,i}$)

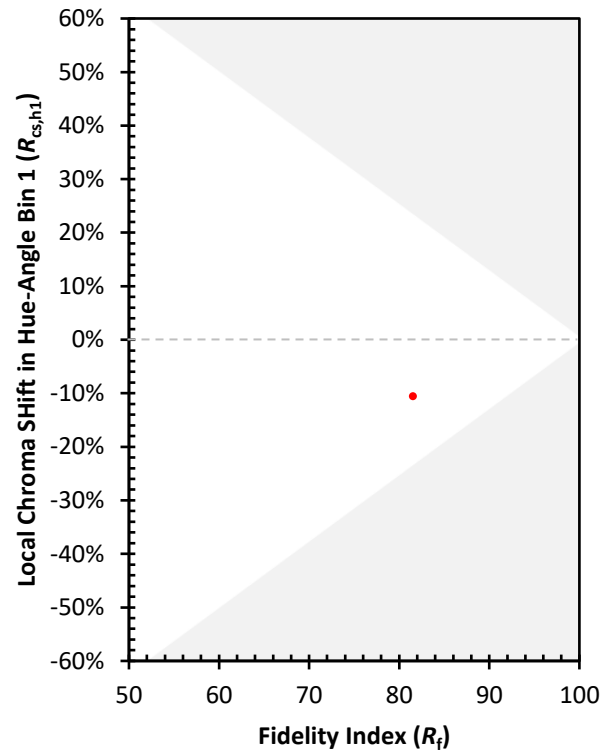
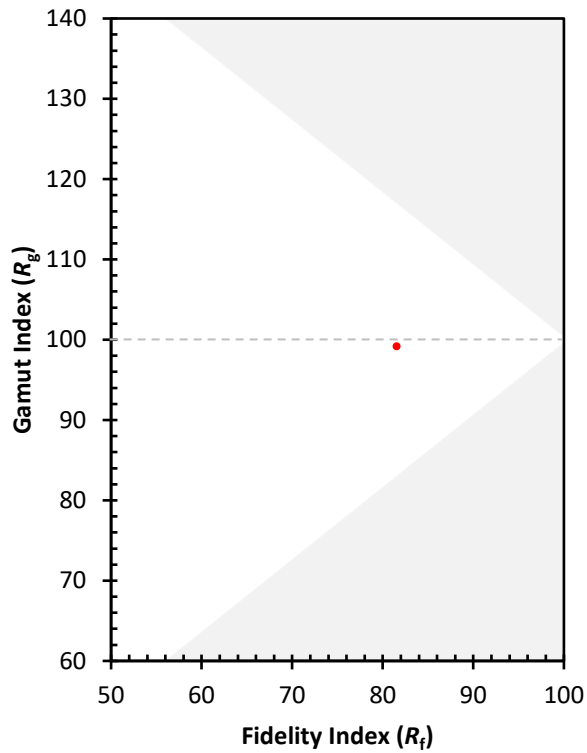
CES01 = 86	CES26 = 74	CES51 = 89	CES76 = 70
CES02 = 63	CES27 = 88	CES52 = 92	CES77 = 86
CES03 = 31	CES28 = 89	CES53 = 81	CES78 = 72
CES04 = 70	CES29 = 67	CES54 = 87	CES79 = 90
CES05 = 50	CES30 = 68	CES55 = 85	CES80 = 88
CES06 = 51	CES31 = 71	CES56 = 78	CES81 = 78
CES07 = 42	CES32 = 70	CES57 = 76	CES82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