

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: P323053

Luminaire Tested: **GLEON-SA9C-830-U-T4W-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P323053
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-19)
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-T4W-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(9) 80 CRI, 3000K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV WIDE OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 36418 lumens
Efficiency: N/A
Efficacy: 72.7 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G5

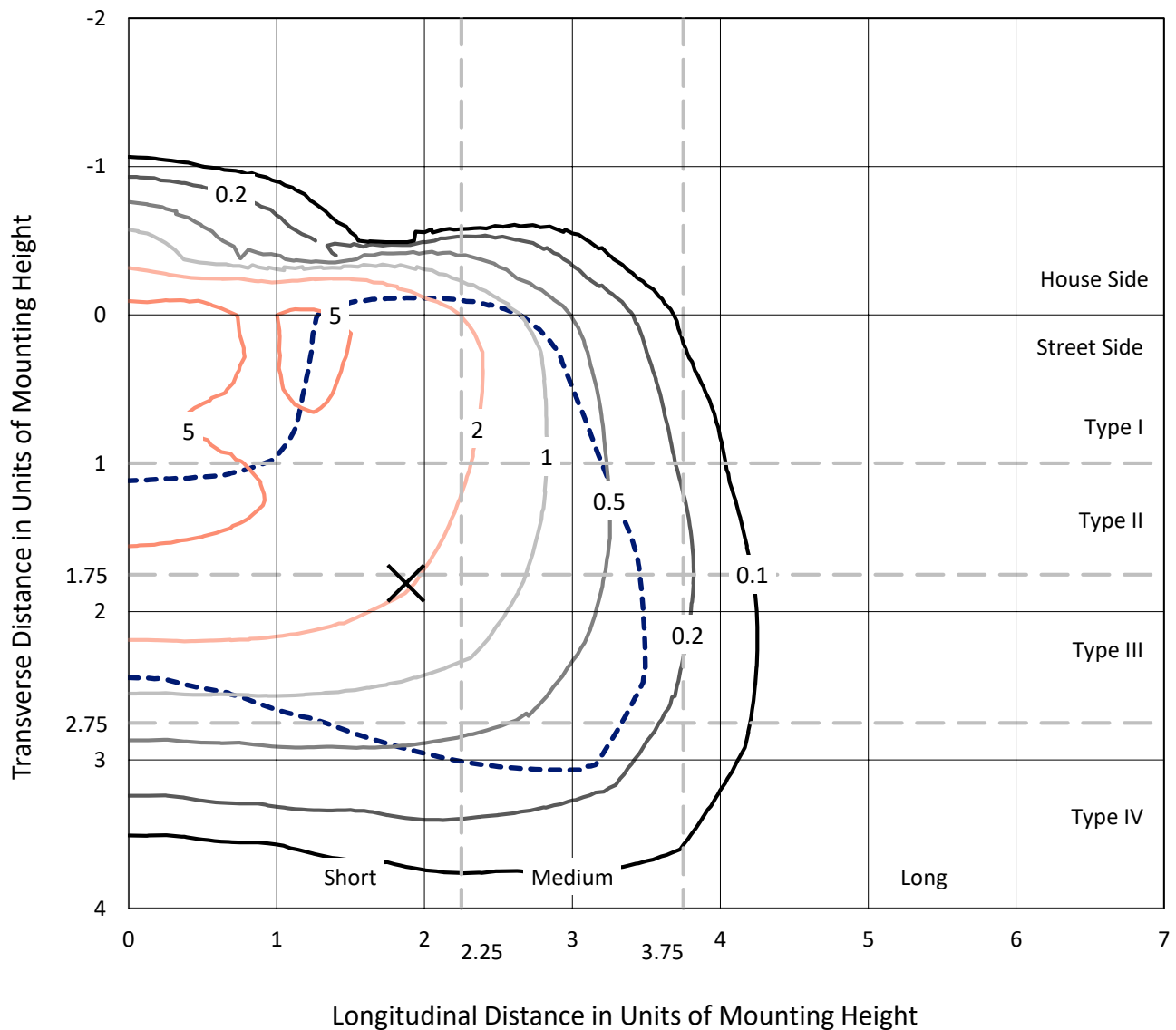
Input Watts (W): 501
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

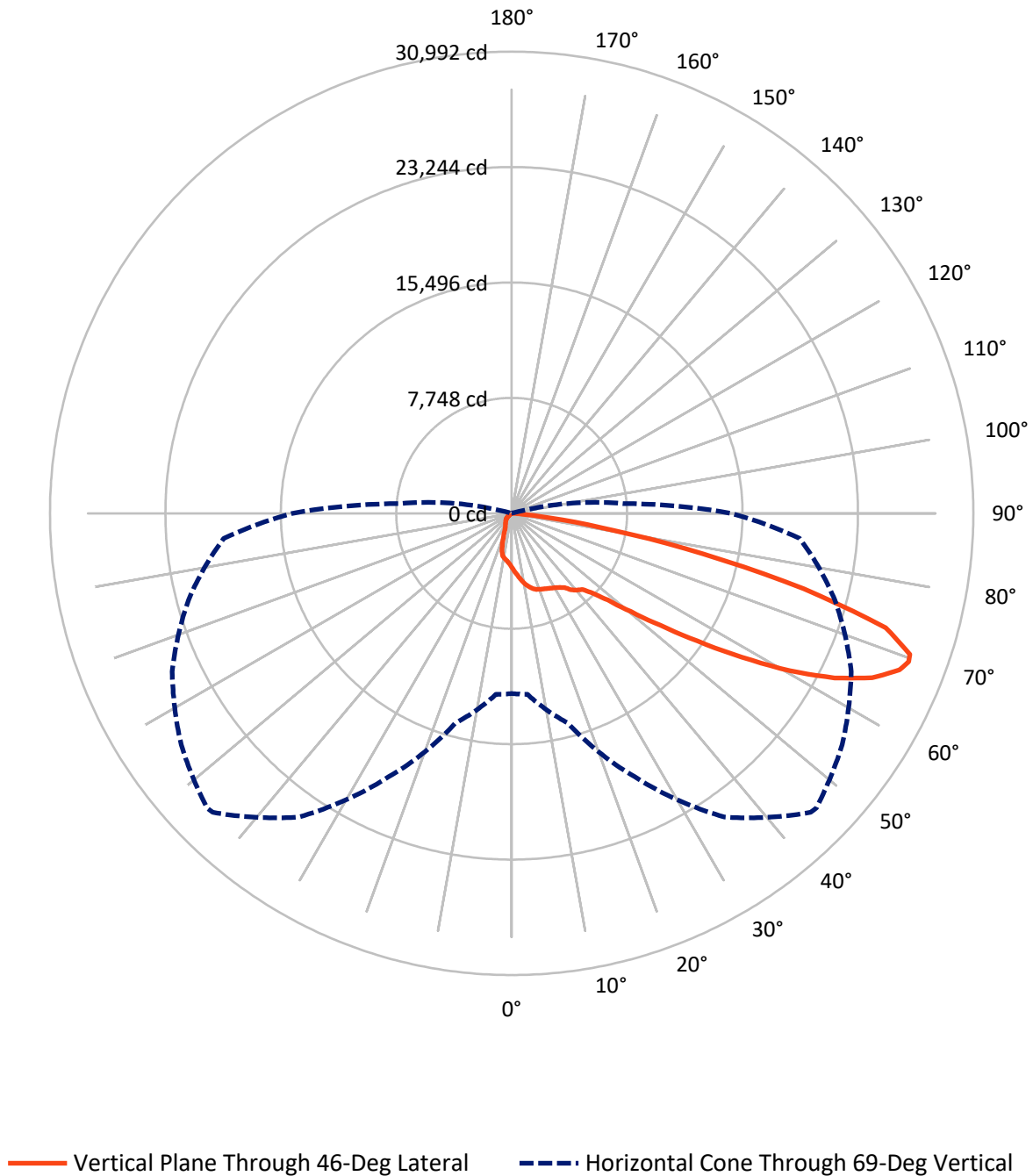
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 8.5 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



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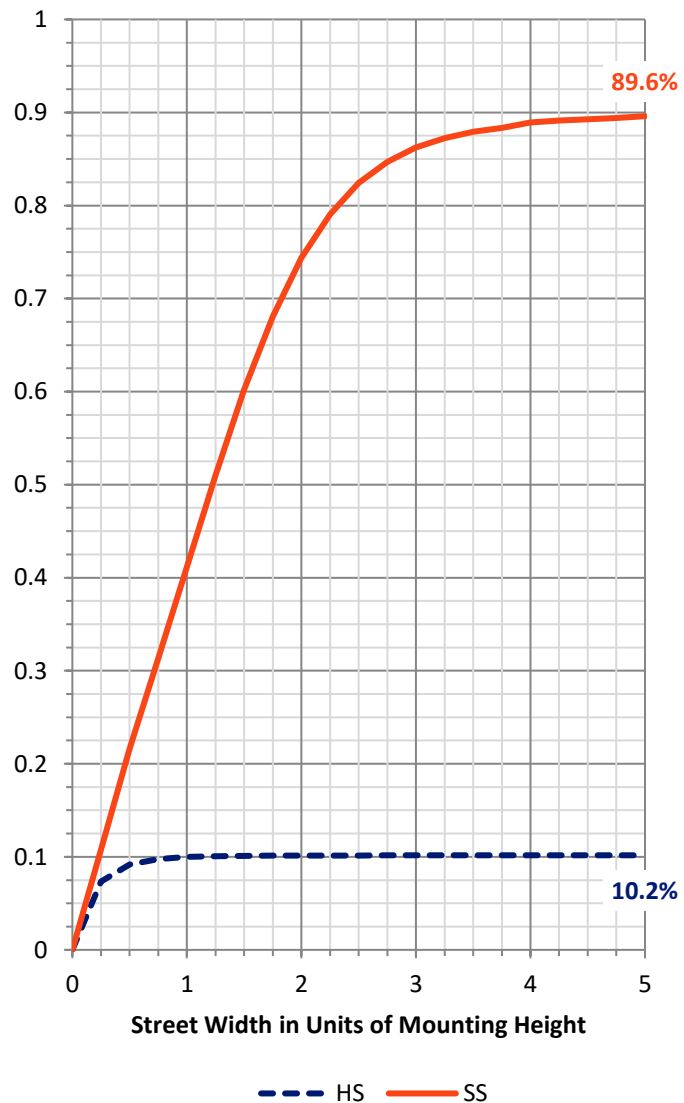
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3737.5	0.0	3737.5
	% Fixture	10.3	0.0	10.3
Street Side	Lumens	32680.5	0.0	32680.5
	% Fixture	89.7	0.0	89.7
Total	Lumens	36418.0	0.0	36418.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	363.2	1.0
10°-20°	1101.8	3.0
20°-30°	1732.8	4.8
30°-40°	2484.9	6.8
40°-50°	4294.9	11.8
50°-60°	8484.9	23.3
60°-70°	11858.4	32.6
70°-80°	5728.9	15.7
80°-90°	368.2	1.0
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°	36418.0	100.0
0°-180°	36418.0	100.0

Coefficient of Utilization



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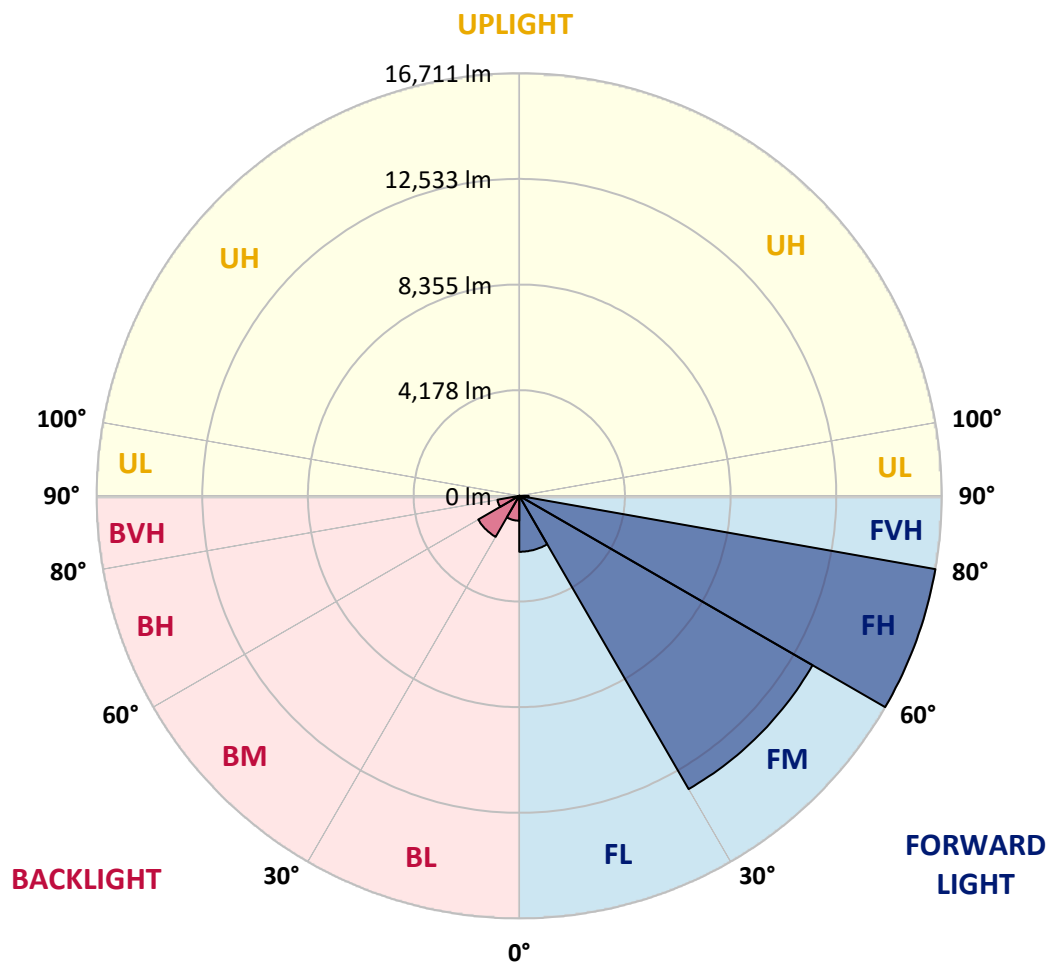
CATALOG NUMBER: GLEON-SA9C-830-U-T4W-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2212.8	6.1			
FM	(30°-60°)	13391.7	36.8			
FH	(60°-80°)	16710.9	45.9			G5
FVH	(80°-90°)	365.1	1.0			G3/500
BL	(0°-30°)	985.1	2.7	B2/1000		
BM	(30°-60°)	1872.9	5.1	B2/2500		
BH	(60°-80°)	876.4	2.4	B2/1000		G2/1000
BVH	(80°-90°)	3.1	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 IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	3648.9	3648.9	3648.9	3648.9	3648.9	3648.9	3648.9	3648.9	3648.9	3648.9	3648.9
2.5°	4053.6	4048.5	4024.6	4014.4	3956.3	3922.1	3908.5	3865.8	3804.3	3742.9	3674.6
5°	4514.7	4512.9	4468.6	4425.9	4316.6	4214.1	4195.4	4096.3	3958.0	3828.2	3698.5
7.5°	4985.9	4963.7	4919.3	4837.4	4678.6	4514.7	4499.3	4359.3	4162.9	3975.1	3789.0
10°	5385.5	5371.8	5313.8	5189.1	5003.0	4816.9	4798.1	4625.6	4403.7	4173.2	3935.8
12.5°	5696.3	5686.0	5609.2	5453.8	5255.7	5062.8	5037.2	4883.5	4646.1	4388.3	4108.3
15°	5885.8	5880.7	5786.7	5621.1	5426.5	5259.1	5236.9	5102.0	4881.8	4612.0	4296.1
17.5°	5930.2	5931.9	5834.6	5667.2	5506.7	5387.2	5370.1	5267.7	5083.3	4815.2	4483.9
20°	5831.1	5851.6	5764.6	5619.4	5520.4	5457.2	5443.5	5382.1	5226.7	4974.0	4634.2
22.5°	5691.1	5701.4	5641.6	5544.3	5503.3	5515.3	5508.4	5474.3	5342.8	5110.6	4782.7
25°	5605.8	5605.8	5569.9	5487.9	5515.3	5588.7	5590.4	5583.6	5479.4	5277.9	4963.7
27.5°	5602.3	5592.1	5551.1	5489.6	5564.8	5677.5	5684.3	5730.4	5665.5	5481.1	5189.1
30°	5738.9	5727.0	5639.9	5559.7	5655.3	5776.5	5793.6	5894.3	5861.9	5701.4	5440.1
32.5°	6058.2	6015.6	5822.6	5691.1	5762.8	5908.0	5930.2	6090.7	6141.9	5972.9	5682.6
35°	6495.4	6360.5	6082.1	5940.4	5947.3	6099.2	6119.7	6355.3	6507.3	6222.2	5870.4
37.5°	7098.1	7031.5	6579.0	6200.0	6230.7	6461.2	6521.0	6777.1	6734.4	6358.8	6083.9
40°	8419.7	8315.6	7834.1	6927.4	6502.2	6754.9	6773.7	6910.3	6913.7	6667.8	6527.8
42.5°	10219.4	10176.8	9669.6	8247.3	7036.6	6951.3	6985.4	7215.9	7473.8	7320.1	7313.3
45°	12212.1	12189.9	11652.0	9999.2	8117.5	7595.0	7637.7	7946.7	8440.2	8474.4	8691.2
47.5°	13815.5	13805.2	13496.2	11954.3	9772.1	8686.1	8699.8	9027.6	9895.0	10323.6	10670.2
50°	15277.1	15326.6	15082.4	14069.9	12026.0	10395.3	10362.9	10581.4	11974.8	12676.5	13106.8
52.5°	17309.0	17379.0	16694.3	16043.8	14390.9	12516.0	12490.4	12719.2	14474.6	15000.5	15077.3
55°	19103.6	18984.1	18442.8	18255.0	17274.9	15135.4	15128.5	15330.0	16892.4	17116.1	17257.8
57.5°	19895.9	19849.8	20111.0	20541.3	20295.5	18231.1	18215.7	18062.0	19055.8	19079.7	19515.1
60°	20396.2	20452.5	21253.4	22580.1	23193.1	21562.4	21463.4	20526.0	21121.9	21069.0	21535.1
62.5°	20020.5	20131.5	21572.7	23783.9	25361.6	24470.3	24330.3	22783.3	22887.5	22704.8	23138.5
65°	18026.2	18198.6	20560.1	23556.8	26437.4	26743.0	26601.3	24776.0	24289.3	23988.8	23748.0
67.5°	14636.8	14739.2	17204.9	21581.2	25952.4	28098.8	28069.7	26522.7	25348.0	23771.9	21903.9
69°	12096.0	12196.7	14570.2	19501.5	24885.2	28389.1	28445.4	27082.8	25146.5	22453.7	19407.6
70°	10245.1	10352.6	12563.9	17718.8	23647.3	28254.2	28354.9	27029.9	24569.4	20927.2	17216.8
72.5°	5373.5	5465.7	7735.0	12207.0	19277.8	25943.9	26249.5	24745.2	20826.5	15198.5	10180.2
75°	1688.7	1741.7	3020.6	6381.0	13199.0	20172.5	20242.5	19411.0	14788.7	8360.0	4239.7
77.5°	643.7	628.4	1005.7	2351.2	6672.9	12702.2	13130.7	12130.1	7760.6	2955.7	978.4
80°	346.6	348.3	522.5	973.3	2855.0	6527.8	6889.8	5879.0	2757.6	922.1	225.4
82.5°	150.3	157.1	293.7	515.7	1311.4	2407.6	2588.6	2154.9	1053.5	619.8	83.7
85°	32.4	35.9	141.7	280.0	534.5	676.2	708.6	698.4	671.1	481.5	32.4
87.5°	0.0	0.0	63.2	100.7	134.9	153.7	134.9	175.9	370.5	324.4	17.1
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-SA9C-830-U-T4W-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3648.9	3648.9	3648.9	3648.9	3648.9	3648.9	3648.9	3648.9	3648.9	3648.9	3648.9
2.5°	3652.4	3621.6	3568.7	3510.6	3469.7	3427.0	3392.8	3377.5	3360.4	3348.4	3363.8
5°	3645.5	3585.8	3483.3	3384.3	3312.6	3254.5	3206.7	3187.9	3169.1	3155.5	3153.8
7.5°	3705.3	3621.6	3464.5	3319.4	3208.4	3129.9	3065.0	3037.7	3015.5	3005.2	2996.7
10°	3819.7	3712.1	3502.1	3312.6	3169.1	3036.0	2895.9	2788.4	2718.4	2685.9	2674.0
12.5°	3968.3	3833.4	3573.8	3348.4	3140.1	2884.0	2586.9	2330.8	2165.1	2110.5	2078.0
15°	4142.4	3975.1	3667.7	3394.5	3034.2	2566.4	2062.7	1728.0	1574.3	1543.6	1509.4
17.5°	4309.8	4125.3	3780.4	3403.1	2802.0	2050.7	1511.1	1284.0	1224.3	1244.8	1249.9
20°	4456.6	4273.9	3891.4	3327.9	2380.3	1538.5	1169.6	1113.3	1135.5	1174.8	1181.6
22.5°	4605.2	4417.3	3993.9	3129.9	1840.7	1167.9	1053.5	1067.2	1089.4	1128.7	1135.5
25°	4786.1	4591.5	4089.5	2766.2	1381.4	993.8	1000.6	1021.1	1043.3	1079.1	1082.6
27.5°	4994.5	4811.8	4152.7	2293.2	1024.5	913.5	935.7	966.5	988.6	1022.8	1029.6
30°	5271.1	5102.0	4173.2	1803.1	858.9	841.8	852.0	889.6	922.1	952.8	957.9
32.5°	5530.6	5388.9	4104.9	1360.9	795.7	775.2	775.2	797.4	835.0	864.0	870.8
35°	5769.7	5677.5	3886.3	995.5	747.9	713.7	696.7	696.7	720.6	744.5	751.3
37.5°	6085.6	6082.1	3532.8	794.0	701.8	662.5	626.7	599.3	590.8	595.9	599.3
40°	6626.8	6632.0	3071.8	712.0	662.5	609.6	554.9	505.4	459.3	444.0	442.2
42.5°	7472.1	7395.2	2588.6	672.8	628.4	554.9	473.0	406.4	334.7	312.5	310.8
45°	8814.2	8358.3	2076.3	636.9	592.5	493.5	391.0	300.5	242.5	225.4	225.4
47.5°	10769.3	9623.5	1608.5	597.6	544.7	423.5	295.4	216.9	177.6	169.0	170.8
50°	12791.0	10863.2	1232.8	548.1	486.6	350.0	218.6	157.1	134.9	134.9	136.6
52.5°	14583.8	11771.6	961.3	495.2	414.9	274.9	165.6	122.9	112.7	111.0	112.7
55°	16262.3	12357.2	735.9	433.7	329.5	204.9	126.4	100.7	93.9	90.5	88.8
57.5°	17881.0	12647.5	551.5	350.0	239.1	148.6	100.7	85.4	78.5	73.4	71.7
60°	18958.5	12411.9	379.1	257.8	165.6	107.6	83.7	73.4	64.9	59.8	58.1
62.5°	19566.3	11768.2	244.2	186.1	117.8	80.3	66.6	61.5	49.5	44.4	44.4
65°	19320.5	10706.1	170.8	133.2	85.4	59.8	49.5	49.5	35.9	29.0	27.3
67.5°	17121.2	9044.7	129.8	99.0	61.5	44.4	37.6	42.7	22.2	13.7	13.7
69°	14730.7	7496.0	111.0	82.0	51.2	35.9	32.4	39.3	15.4	10.2	8.5
70°	12802.9	6466.3	100.7	71.7	42.7	30.7	29.0	37.6	15.4	8.5	6.8
72.5°	7659.9	3606.3	76.8	51.2	27.3	23.9	23.9	42.7	15.4	8.5	6.8
75°	3095.7	1270.4	56.3	35.9	20.5	20.5	29.0	54.6	13.7	6.8	5.1
77.5°	701.8	278.3	32.4	22.2	13.7	20.5	34.2	42.7	8.5	3.4	0.0
80°	170.8	68.3	20.5	13.7	8.5	15.4	25.6	23.9	1.7	0.0	0.0
82.5°	56.3	23.9	8.5	6.8	1.7	5.1	12.0	6.8	0.0	0.0	0.0
85°	23.9	13.7	3.4	1.7	0.0	0.0	1.7	0.0	0.0	0.0	0.0
87.5°	15.4	5.1	0.0	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
 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

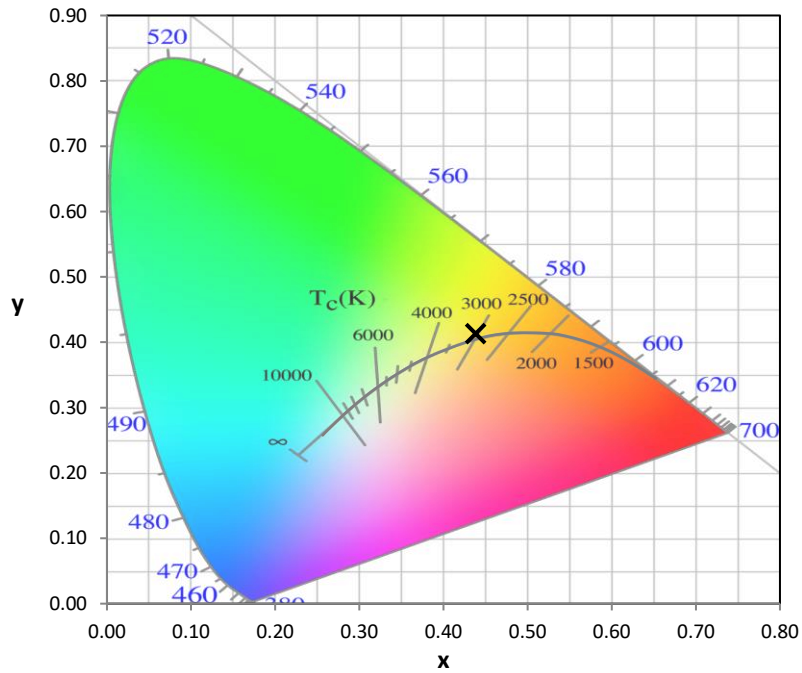
Stabilization Time: 20M
 Operation Time: 1H 20M
 Sphere Temperature (°C): 24.2

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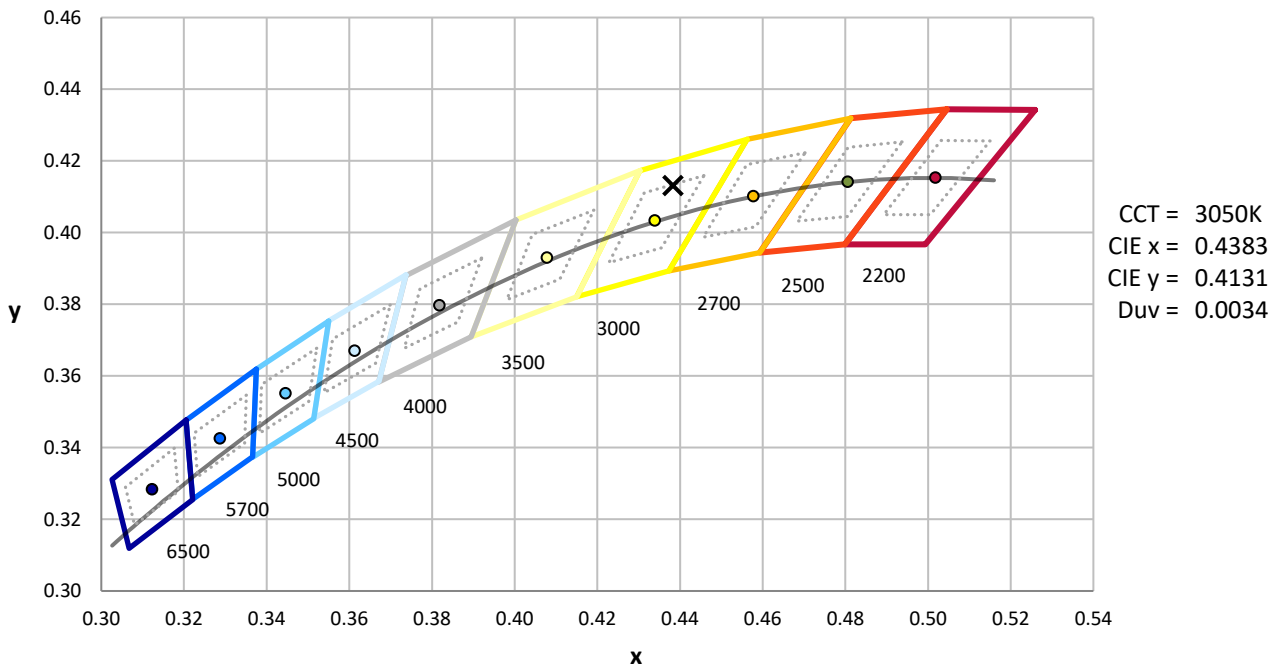
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

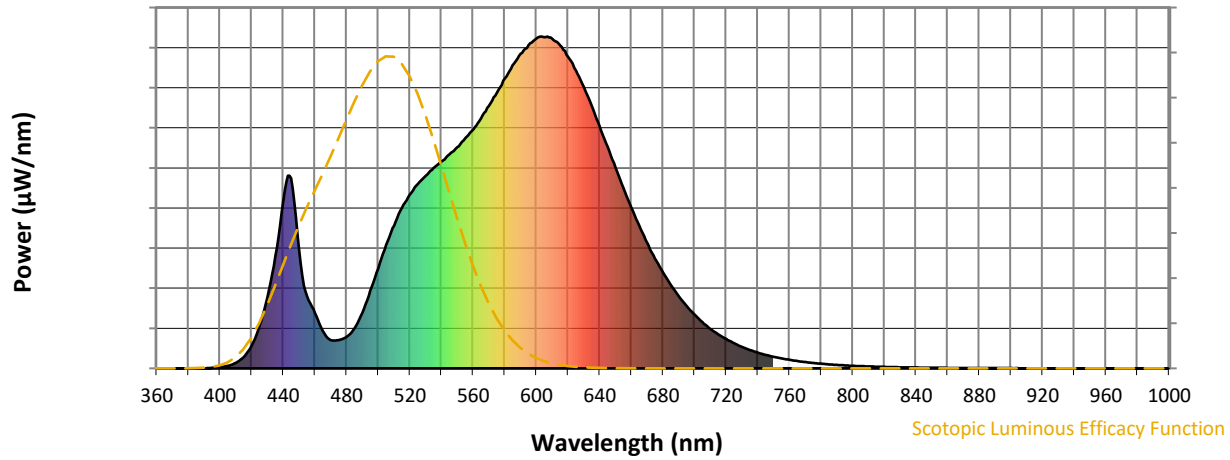


Photopic Lumens: NR

λ (nm)	Power 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



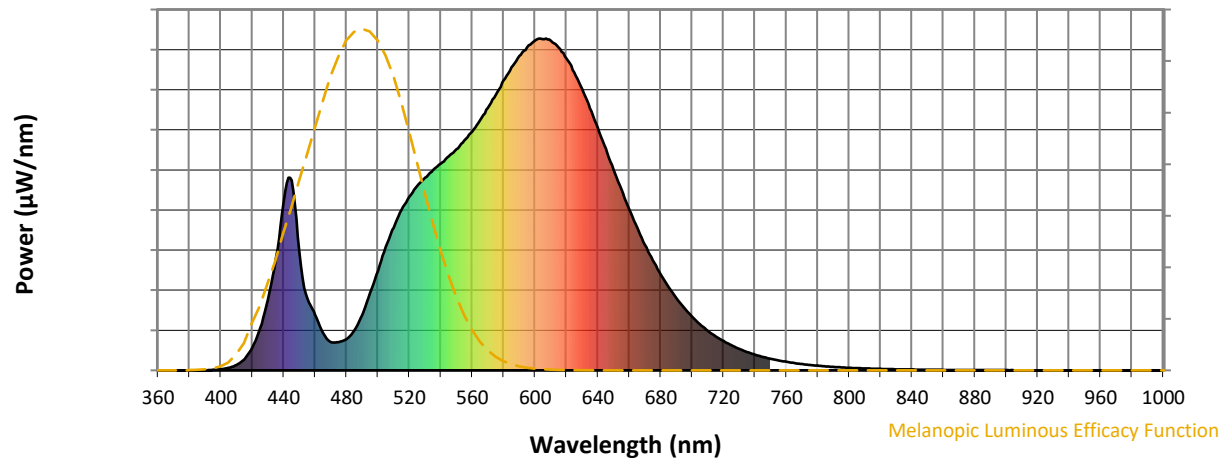
Scotopic Lumens: NR

S/P: 1.27

λ (nm)	Power W [^] /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

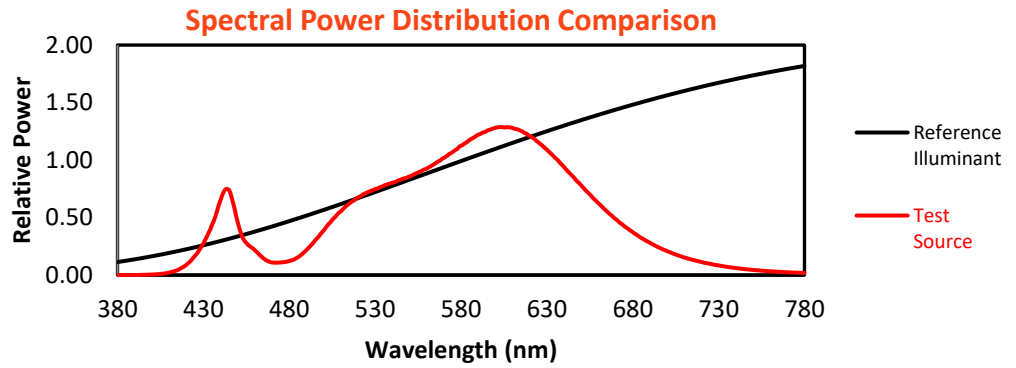
λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)
360	0	NR	490	168	NR	620	940	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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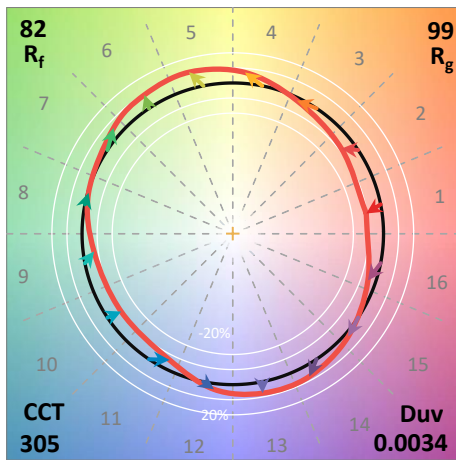
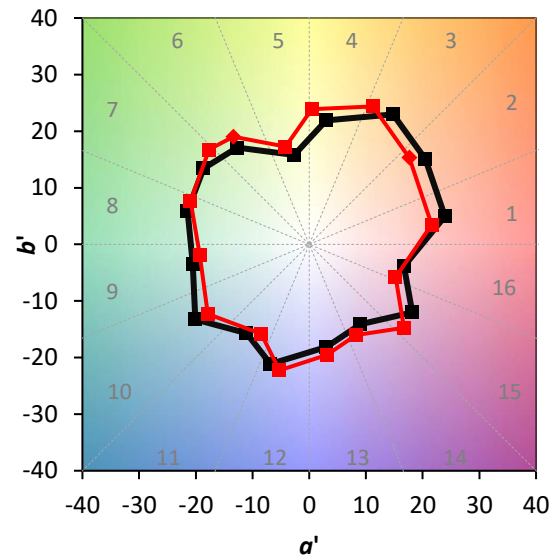
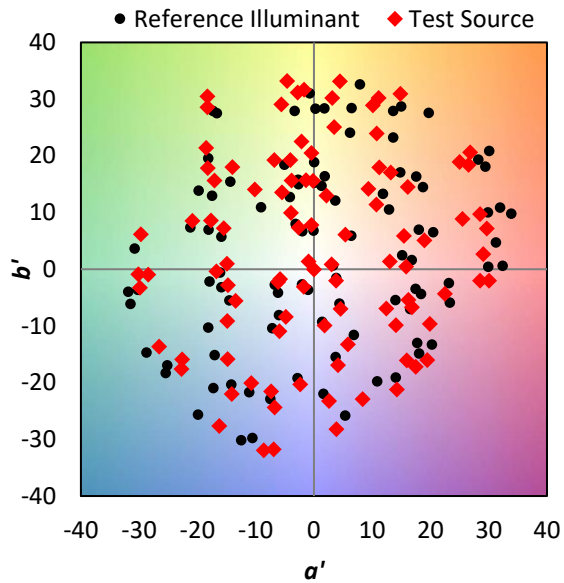
TM-30-18

Summary

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

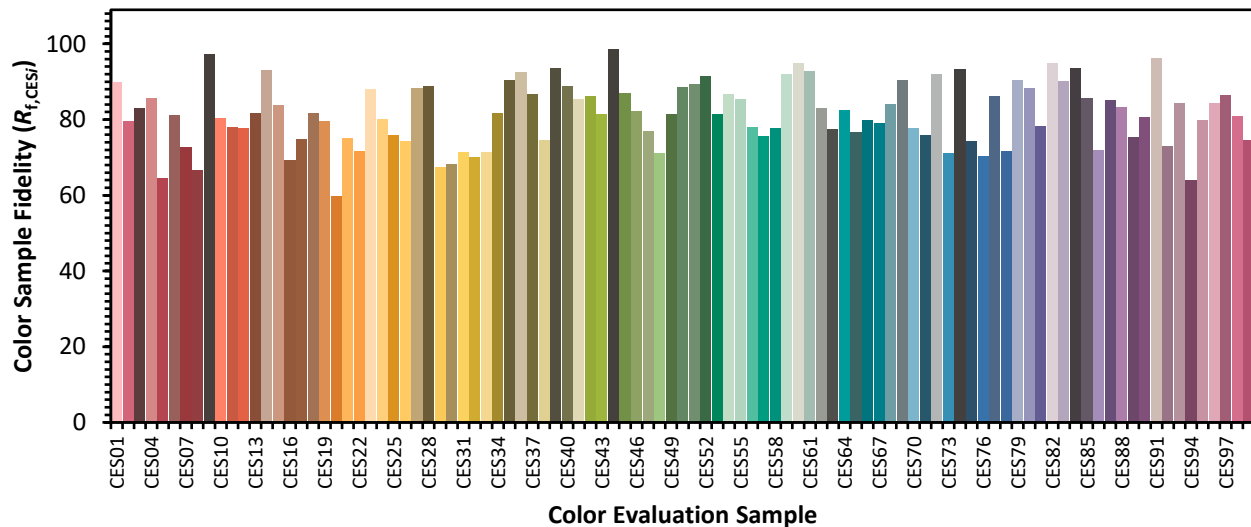


Color Vector Graphics

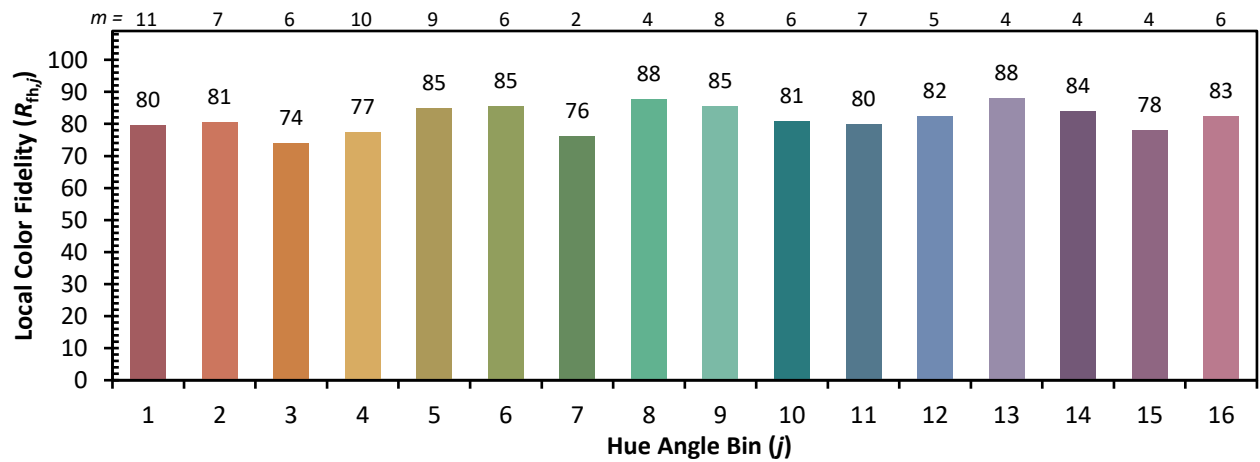
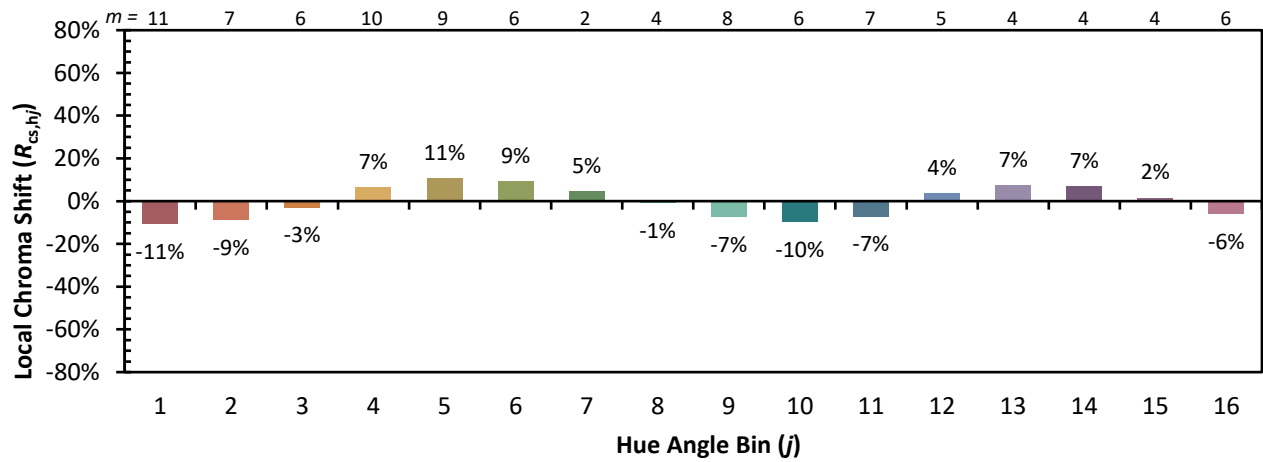


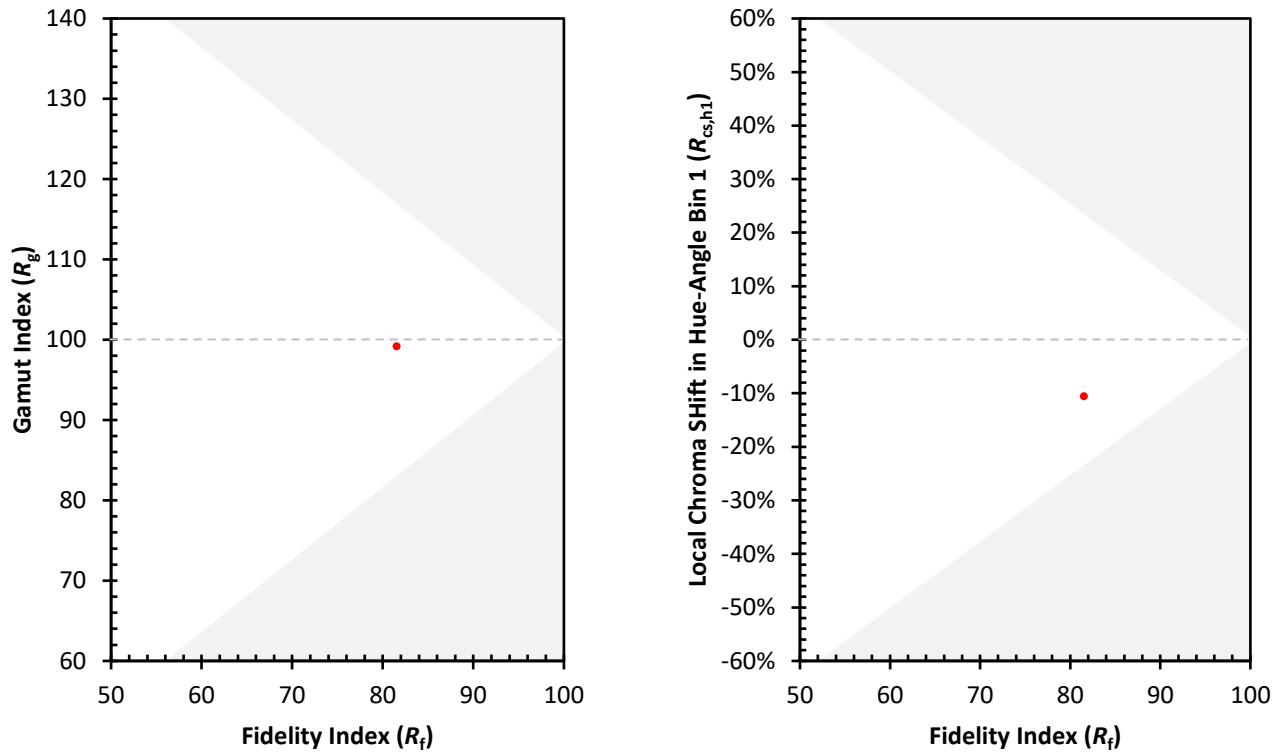
Individual Sample Fidelity Index ($R_{f,i}$)

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)