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: P317293

Luminaire Tested: **GLEON-SA9C-830-U-RW**

Issue Date: 3/3/2020

Report Generated By E0585644

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report

Test Information

Test Method:	LM-79-08
Report Number:	P317293
	TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-7)
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-RW
Description:	GALLEON AREA AND ROADWAY LUMINAIRE
	(9) 80 CRI, 3000K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND RECTANGULAR WIDE OPTICS
Light Source:	-
Ballast/Driver:	ELECTRONIC DRIVER

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	51363 lumens
Efficiency:	N/A
Efficacy:	102.5 lumens/watt
Luminous Opening:	Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification:	Type III - Short
BUG Rating:	B5 - 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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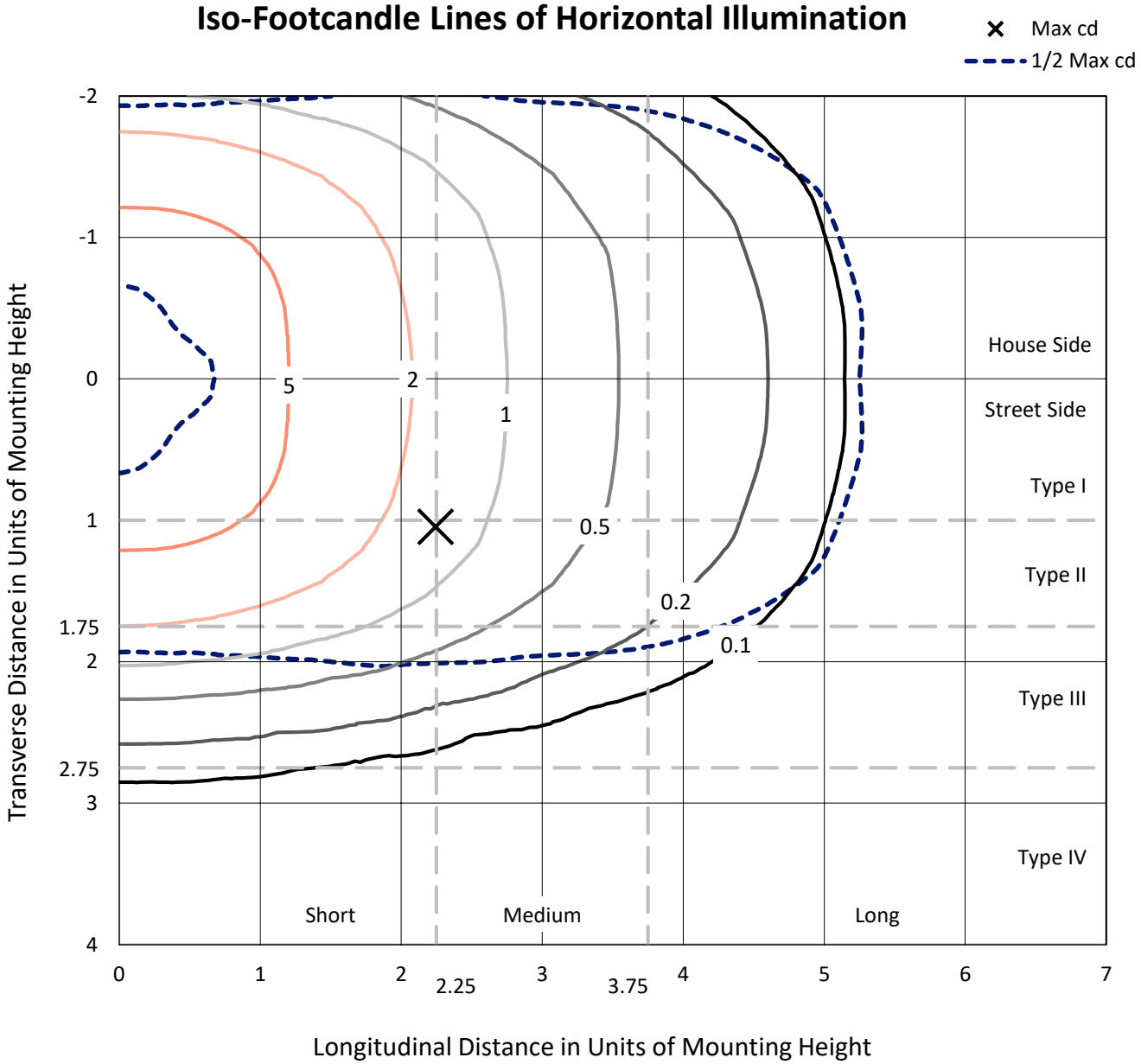
Scaled Data Report

REPORT NUMBER: P317293
CATALOG NUMBER: GLEON-SA9C-830-U-RW

Iso-Footcandle Lines of Horizontal Illumination



Based on 25 foot mounting height. Maximum calculated value = 9.7 fc
Type III - Short - N/A

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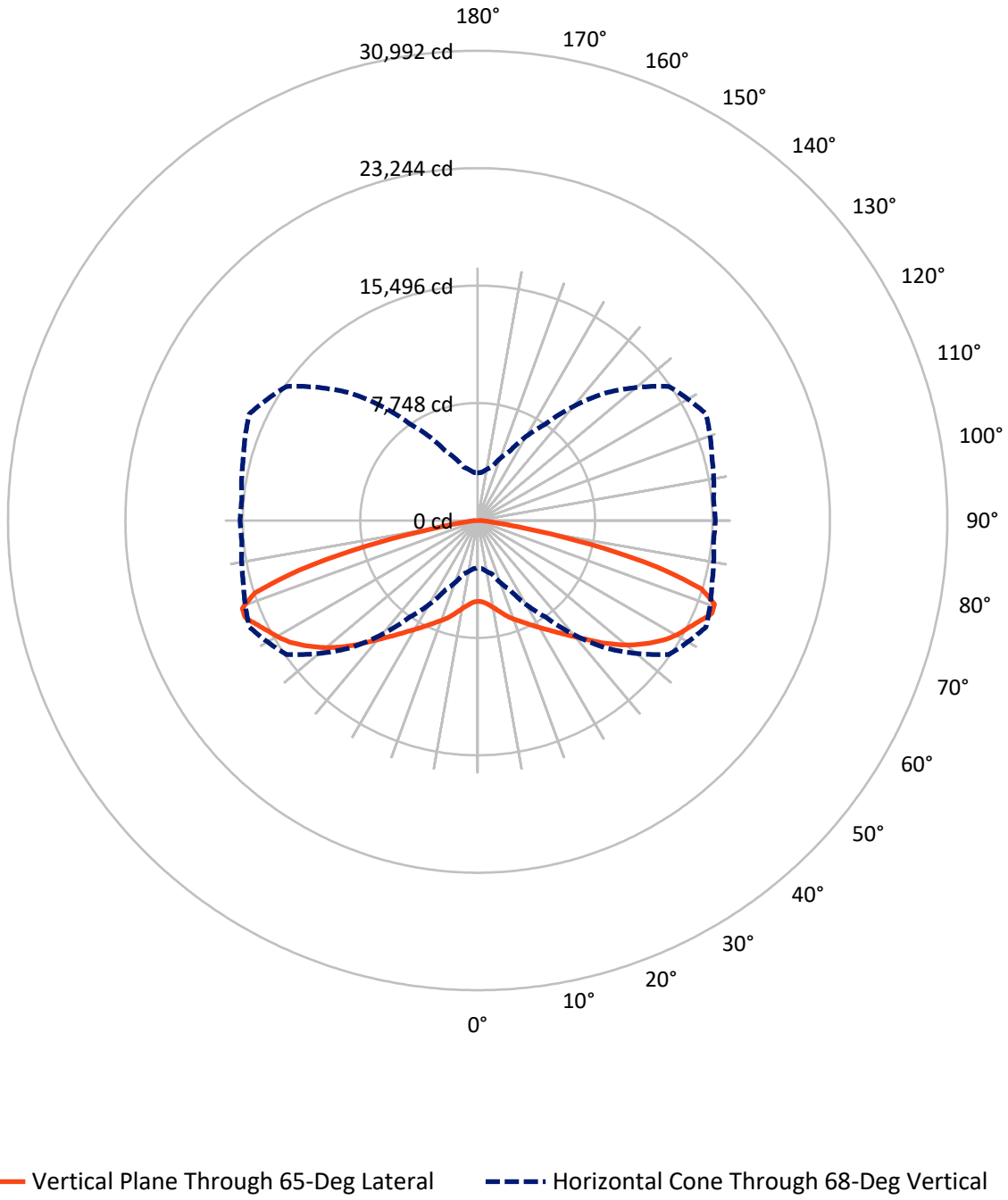
Luminous Intensity Polar Plot



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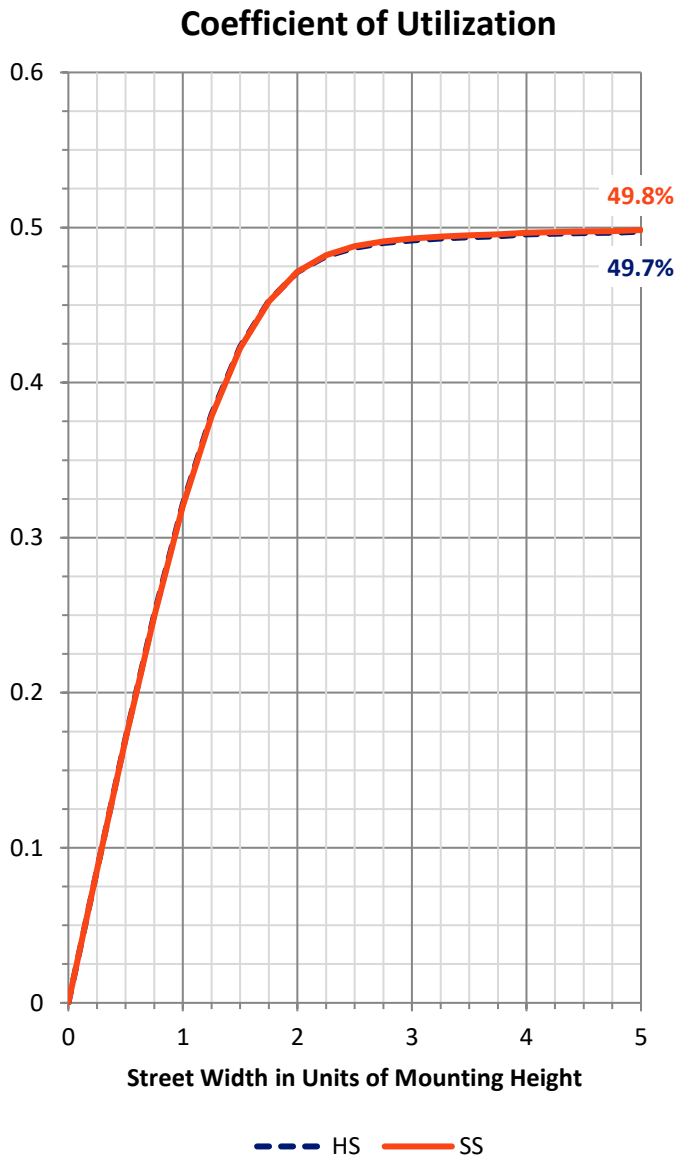
CATALOG NUMBER: GLEON-SA9C-830-U-RW

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	25681.5	0.0	25681.5
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	25681.5	0.0	25681.5
	% Fixture	50.0	0.0	50.0
Total	Lumens	51363.0	0.0	51363.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	522.9	1.0
10°-20°	1750.8	3.4
20°-30°	3413.6	6.6
30°-40°	5734.6	11.2
40°-50°	9035.8	17.6
50°-60°	12083.8	23.5
60°-70°	11747.0	22.9
70°-80°	6421.5	12.5
80°-90°	653.1	1.3
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°	51363.0	100.0
0°-180°	51363.0	100.0



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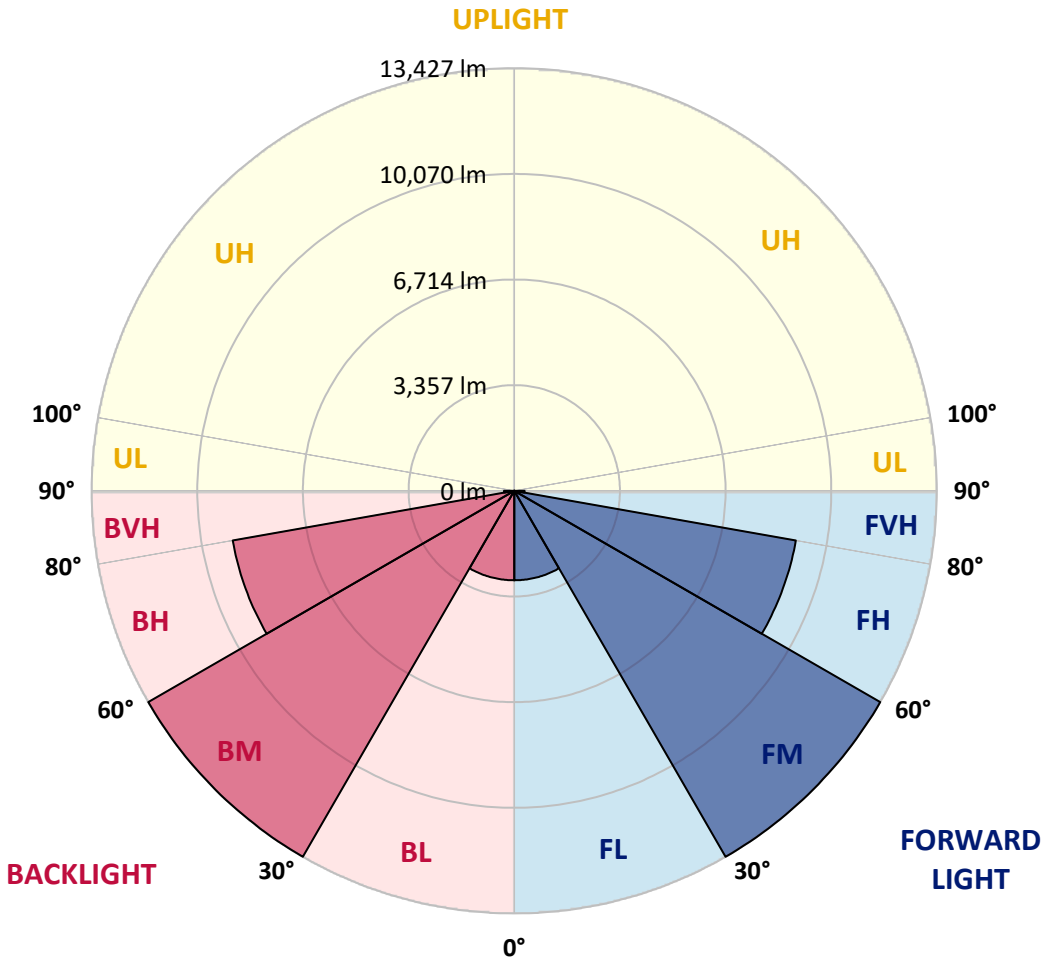
Scaled Data Report

REPORT NUMBER: P317293
CATALOG NUMBER: GLEON-SA9C-830-U-RW

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	2843.7	5.5			
FM	(30°-60°)	13427.1	26.1			
FH	(60°-80°)	9084.2	17.7			G4/12000
FVH	(80°-90°)	326.5	0.6			G3/500
BL	(0°-30°)	2843.7	5.5	B4/5000		
BM	(30°-60°)	13427.1	26.1	B5		
BH	(60°-80°)	9084.2	17.7	B5		G5
BVH	(80°-90°)	326.5	0.6			G3/500
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B5-U0-G5
Type III Short



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Scaled Data Report

REPORT NUMBER: P317293
CATALOG NUMBER: GLEON-SA9C-830-U-RW

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	5340.5	5340.5	5340.5	5340.5	5340.5	5340.5	5340.5	*5340.5*	5340.5	5340.5	5340.5
2.5°	5302.7	5304.4	5313.0	5323.3	5331.9	5354.3	5359.5	*5368.1*	5371.5	5380.2	5380.2
5°	5256.2	5259.6	5280.3	5307.8	5338.8	5393.9	5433.5	*5478.3*	5500.7	5524.8	5523.1
7.5°	5251.0	5259.6	5288.9	5333.7	5385.3	5476.6	5559.3	*5648.8*	5709.1	5764.2	5760.8
10°	5304.4	5318.2	5359.5	5426.7	5504.2	5617.8	5740.1	*5860.6*	5965.7	6050.1	6053.5
12.5°	5385.3	5402.5	5468.0	5569.6	5686.7	5833.1	5977.8	*6113.8*	6258.5	6384.2	6394.5
15°	5492.1	5514.5	5612.7	5764.2	5943.3	6117.3	6272.3	*6411.8*	6578.8	6752.7	6770.0
17.5°	5650.5	5681.5	5810.7	6015.6	6251.6	6442.8	6604.6	*6709.7*	6849.2	7028.3	7061.0
20°	5891.6	5931.3	6094.9	6339.4	6627.0	6826.8	6950.8	*6973.2*	7042.1	7202.2	7240.1
22.5°	6205.1	6239.5	6422.1	6713.1	7035.2	7252.2	7317.6	*7228.1*	7221.2	7350.4	7386.5
25°	6554.7	6585.7	6797.5	7124.7	7470.9	7710.3	7708.6	*7534.6*	7414.1	7514.0	7551.8
27.5°	6947.4	6995.6	7198.8	7543.2	7913.5	8149.5	8135.7	*7867.0*	7638.0	7663.8	7696.5
30°	7398.6	7452.0	7650.0	7999.6	8369.9	8600.7	8583.4	*8228.7*	7884.2	7815.3	7839.5
32.5°	7958.3	8022.0	8209.7	8554.2	8881.4	9089.8	9039.8	*8621.3*	8180.5	8030.6	8053.0
35°	8631.7	8669.6	8867.6	9206.9	9472.1	9615.0	9510.0	*9076.0*	8555.9	8375.1	8375.1
37.5°	9313.7	9342.9	9565.1	9894.0	10150.6	10226.4	10021.5	*9573.7*	9046.7	8790.1	8795.3
40°	9968.1	10047.3	10297.0	10634.6	10887.8	10908.4	10636.3	*10142.0*	9592.7	9327.4	9358.4
42.5°	10651.8	10729.3	11027.2	11409.6	11633.5	11667.9	11349.3	*10779.3*	10209.2	9993.9	10028.4
45°	11261.5	11323.5	11667.9	12112.2	12391.2	12480.8	12103.6	*11509.5*	10875.7	10665.6	10674.2
47.5°	11686.9	11767.8	12146.7	12670.2	13076.7	13214.4	12844.2	*12220.7*	11531.9	11277.0	11299.4
50°	12072.6	12115.7	12499.7	13071.5	13588.2	13872.3	13555.4	*12923.4*	12194.9	11924.5	11948.6
52.5°	12287.9	12343.0	12715.0	13310.9	13922.3	14380.4	14187.5	*13555.4*	12835.6	12572.1	12601.3
55°	12138.1	12179.4	12625.5	13364.3	14128.9	14693.8	14723.1	*14173.7*	13464.2	13233.4	13316.1
57.5°	11456.1	11507.7	12052.0	13019.8	14154.8	14905.6	15126.1	*14747.2*	14051.4	13863.7	13911.9
60°	10390.0	10422.8	11003.1	12091.6	13651.9	14993.5	15382.7	*15215.6*	14626.6	14438.9	14504.4
62.5°	8490.4	8538.7	9232.7	10691.4	12589.3	14733.4	15630.7	*15603.1*	15162.3	14990.0	15048.6
65°	5803.8	5888.2	6656.3	8500.8	10951.5	13937.8	15856.3	*16054.4*	15635.9	15418.9	15496.4
67.5°	3504.7	3566.7	4122.9	5612.7	8380.2	12332.7	15623.8	*16567.6*	15970.0	15620.4	15684.1
68°	*3132.7*	*3189.5*	*3654.5*	*5065.0*	*7751.6*	*11879.7*	*15412.0*	*16626.1*	*16006.1*	*15616.9*	*15673.7*
70°	1892.7	1930.6	2242.3	3131.0	5168.3	9423.9	13967.0	*16577.9*	16236.9	15665.1	15697.9
72.5°	1233.1	1245.2	1296.8	1606.8	2640.1	5269.9	10483.0	*15448.1*	16583.1	15945.9	15940.7
75°	1024.7	1017.8	1023.0	1059.2	1302.0	2311.2	6125.9	*12203.5*	15808.1	15503.2	15394.7
77.5°	866.3	861.1	859.4	861.1	871.4	1116.0	2659.1	*7601.8*	12096.7	13713.9	13810.3
80°	700.9	694.0	716.4	706.1	675.1	694.0	1114.3	*3162.0*	5702.2	6134.5	5748.7
82.5°	509.8	483.9	580.4	552.8	527.0	489.1	614.8	*1021.3*	1360.5	933.4	656.2
85°	392.7	365.1	440.9	423.7	361.7	249.7	365.1	*499.4*	551.1	315.2	248.0
87.5°	160.2	168.8	318.6	251.4	211.8	120.6	149.8	*199.8*	268.7	134.3	103.3
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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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.

Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

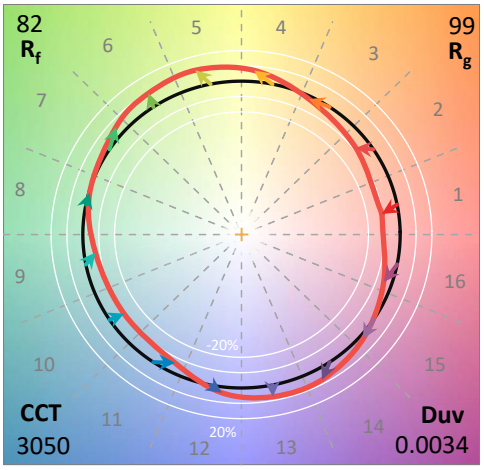
Test Information

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

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

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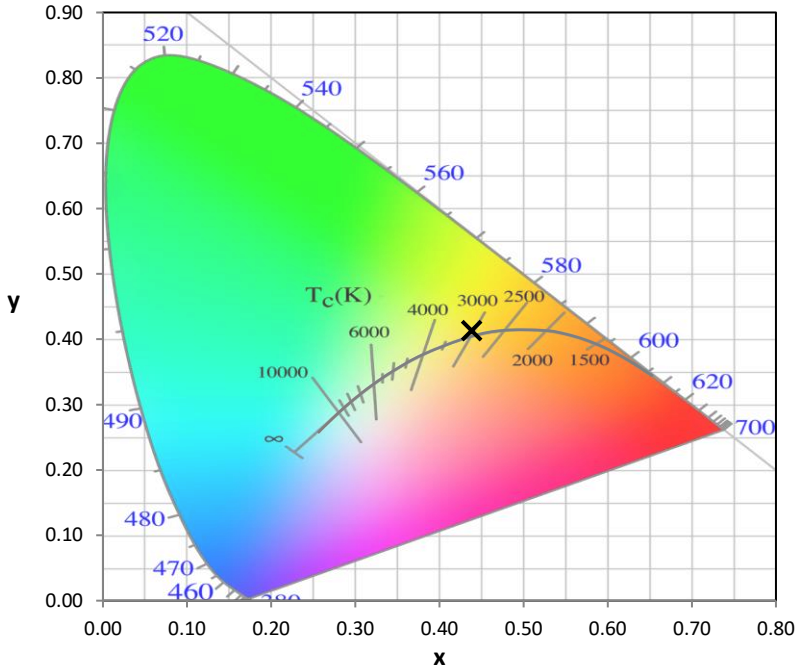
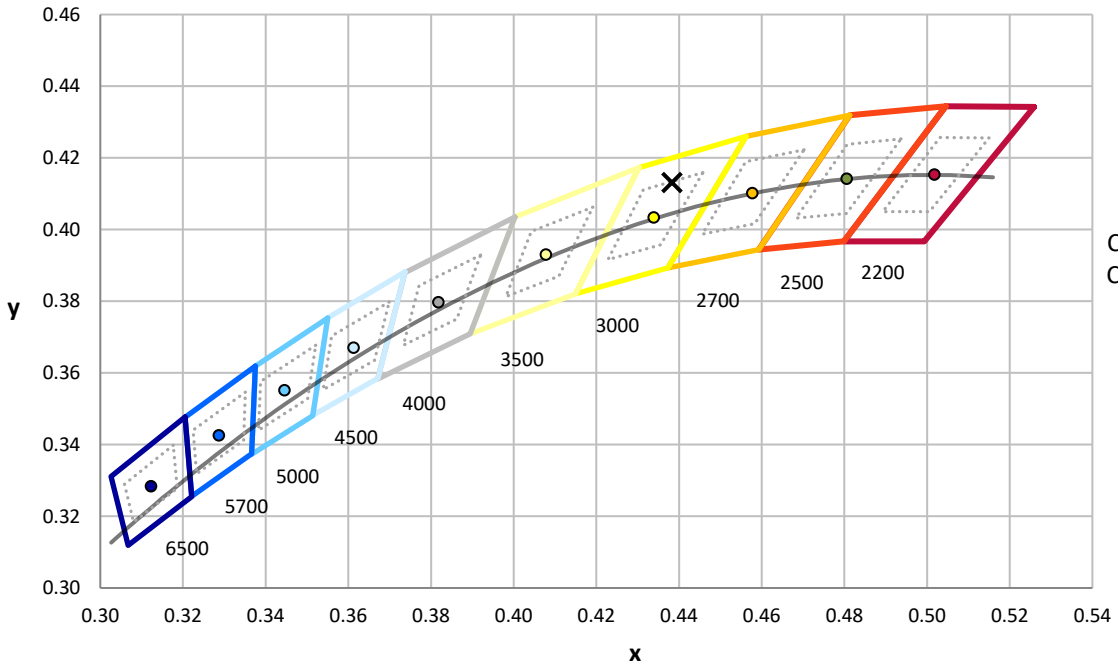
CIE 1931 Chromaticity Diagram



CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles

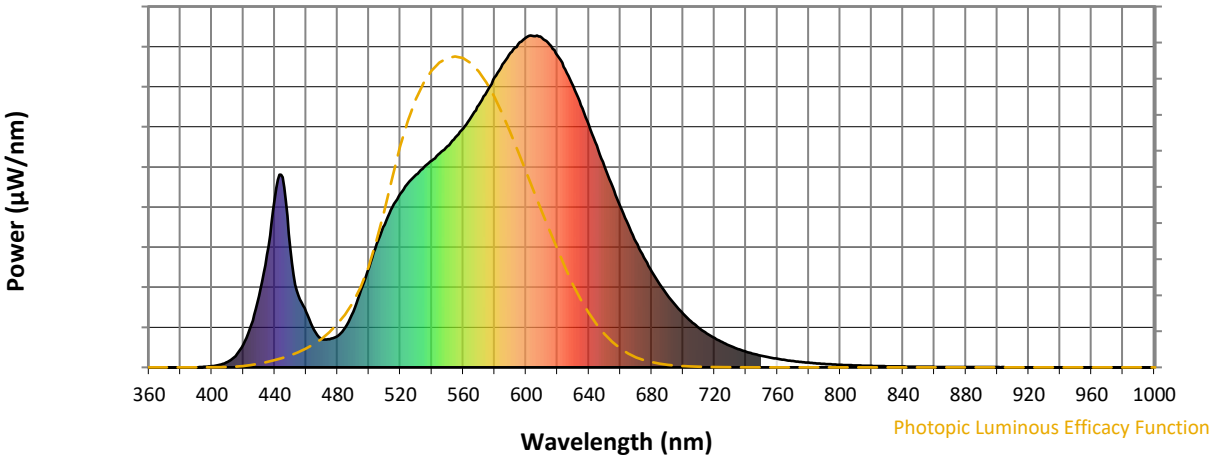


CCT = 3050K
CIE x = 0.4383
CIE y = 0.4131
Duv = 0.0034

Point lies inside the ANSI 3000K 4-step quadrangle

REPORT NUMBER: SP1-2408-195-9

Photopic Flux vs. Wavelength

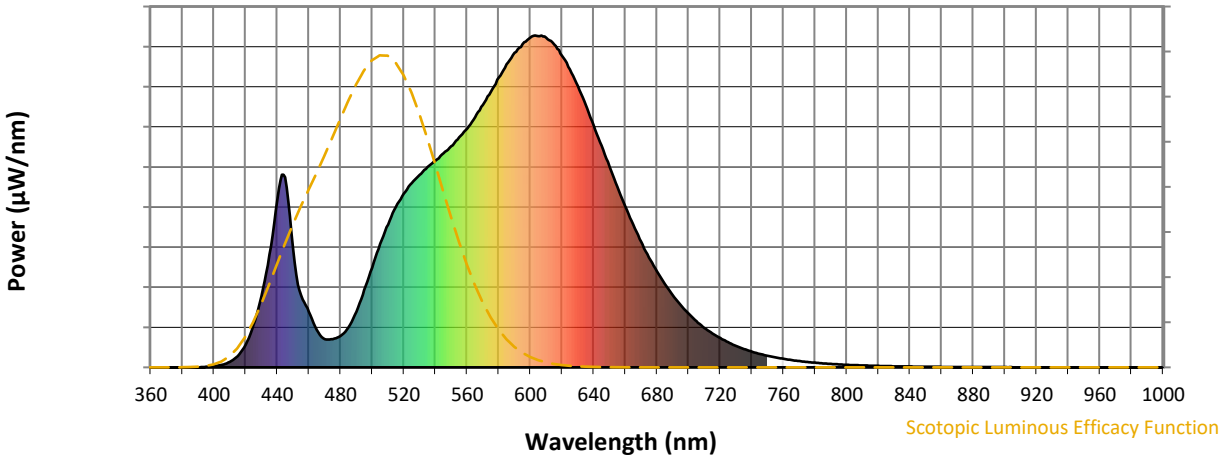


Photopic Lumens: NR

λ (nm)	Power 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

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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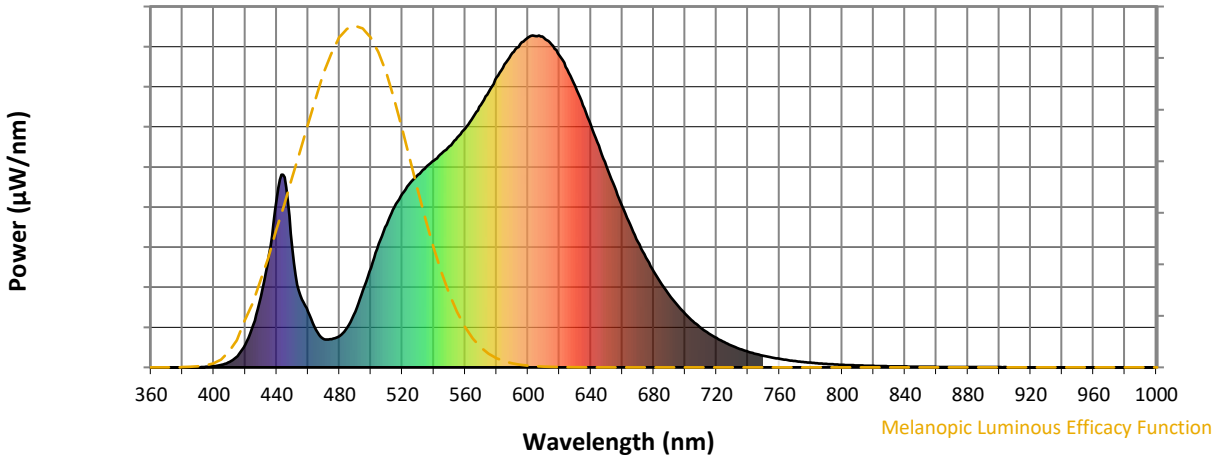
Melanopic Flux vs. Wavelength



Melanopic Lumens: NR **M/P: 2.32**

λ (nm)	Power 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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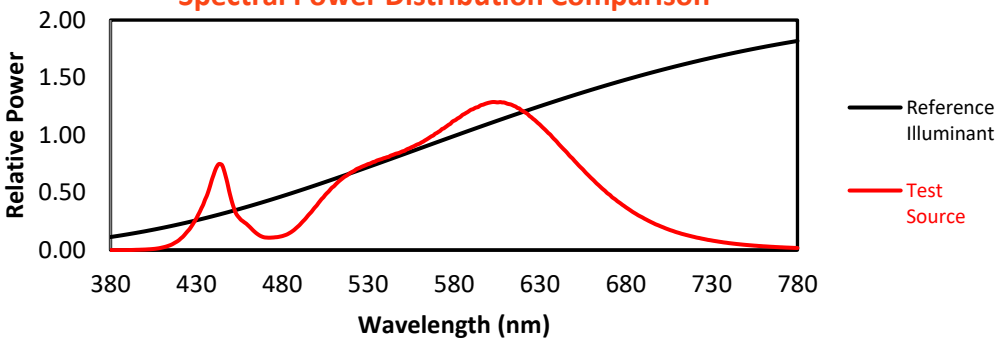
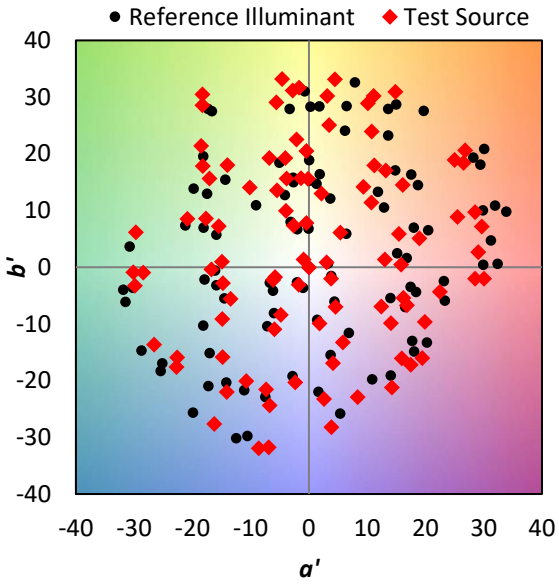
Summary

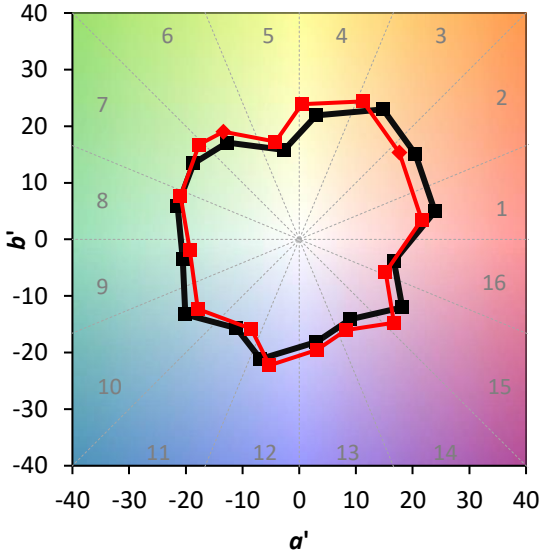
R_f = 81.5
R_g = 99.2
CIE R_a = 81.0
R_9 = 7.1

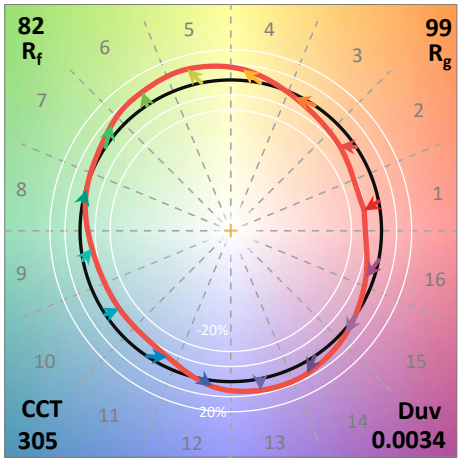
Spectral Power Distribution Comparison

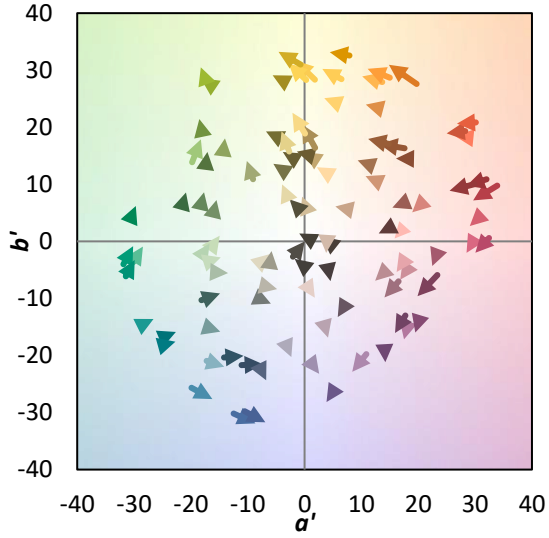


Color Vector Graphics









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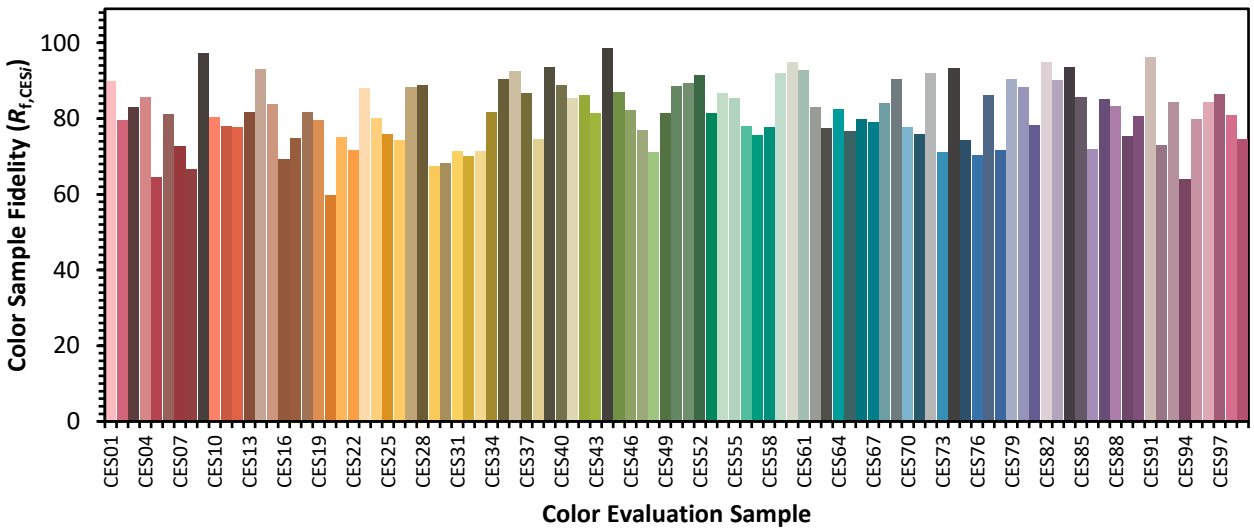
Individual Sample Fidelity Index ($R_{f,i}$)

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	



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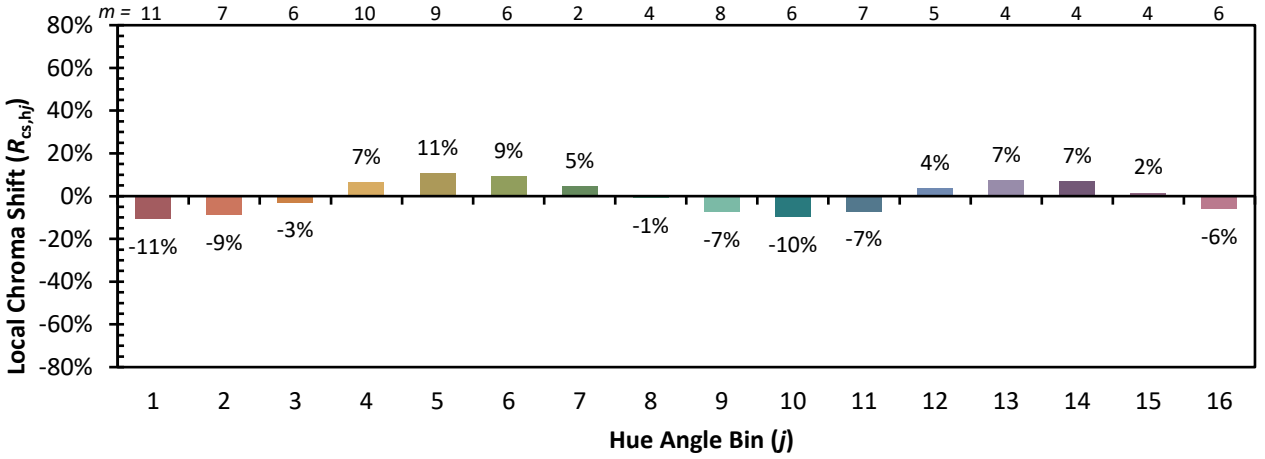
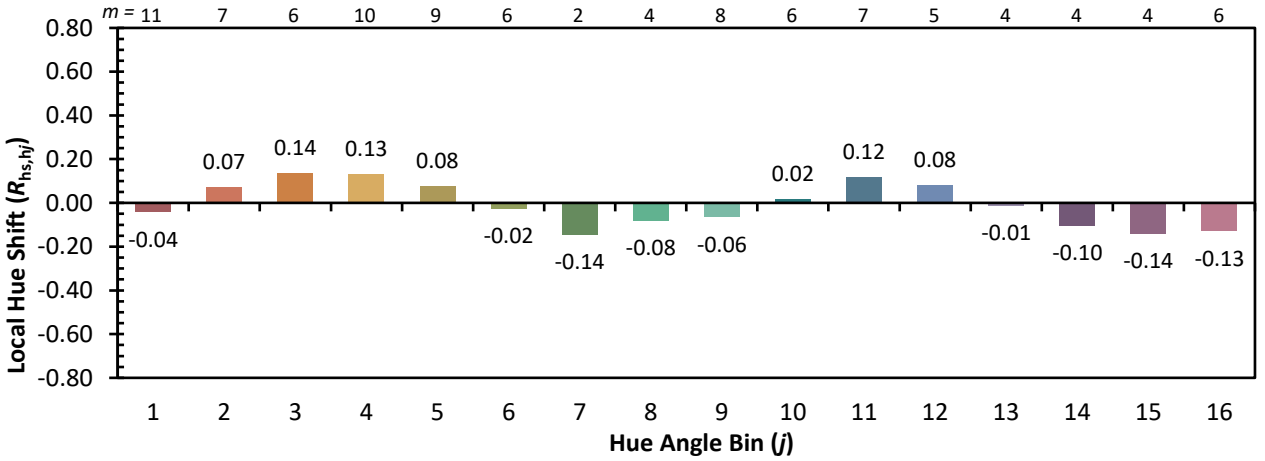
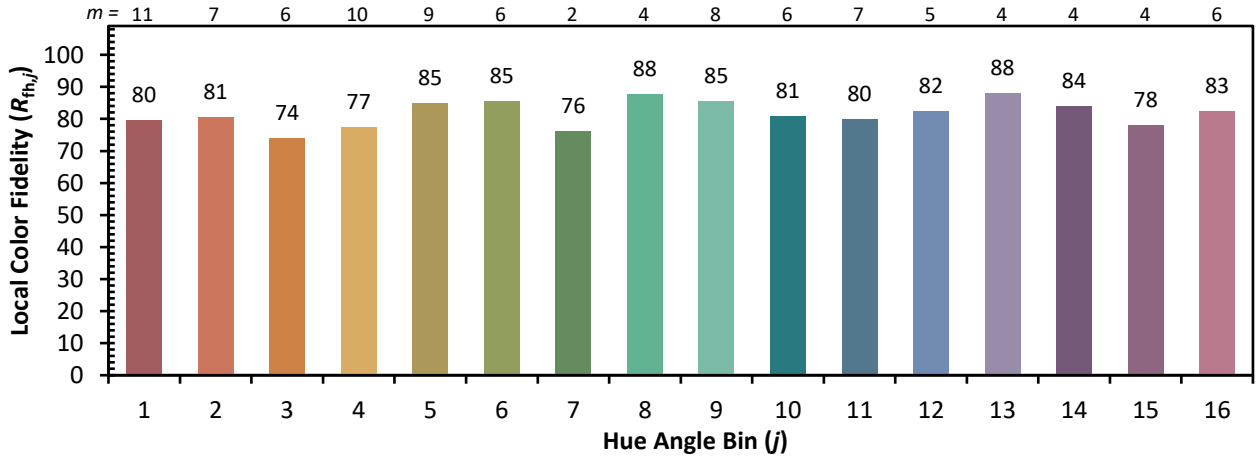
Color Rendition by Hue-Angle Bin







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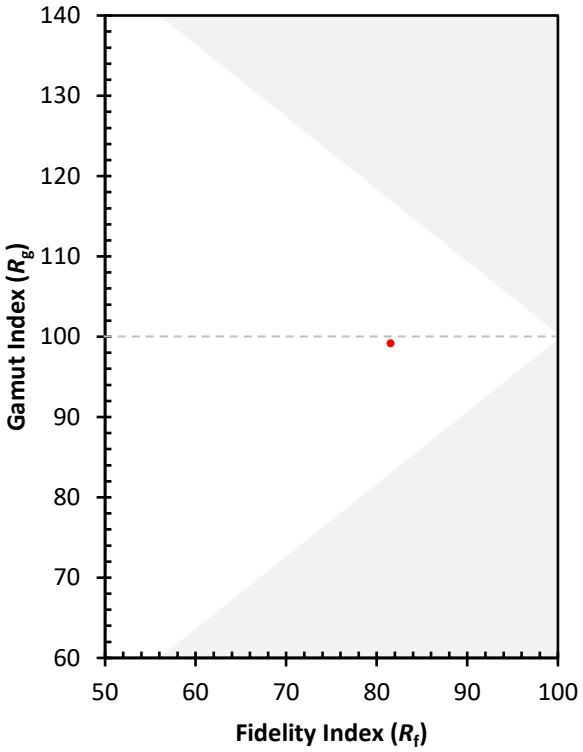
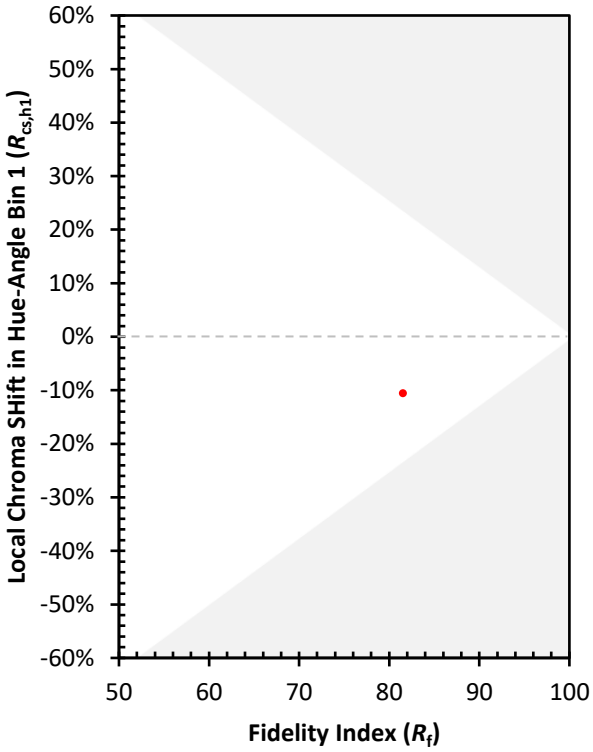
Measure Comparisons





(END OF REPORT)