

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: P437943

Luminaire Tested: **ISC-SA1F-830-U-T2**

Issue Date: 12/9/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P437943  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-074-1)  
Test Lab: INNOVATION CENTER  
Issue Date: 12/9/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: ISC-SA1F-830-U-T2  
Description: IMPACT ELITE LED CYLINDER LUMINAIRE  
(1) 80 CRI, 3000K, 1200mA LIGHTSQUARE WITH 16 LEDS AND TYPE II OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6274 lumens  
Efficiency: N/A  
Efficacy: 95.1 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type II - Medium  
BUG Rating: B1 - U0 - G2

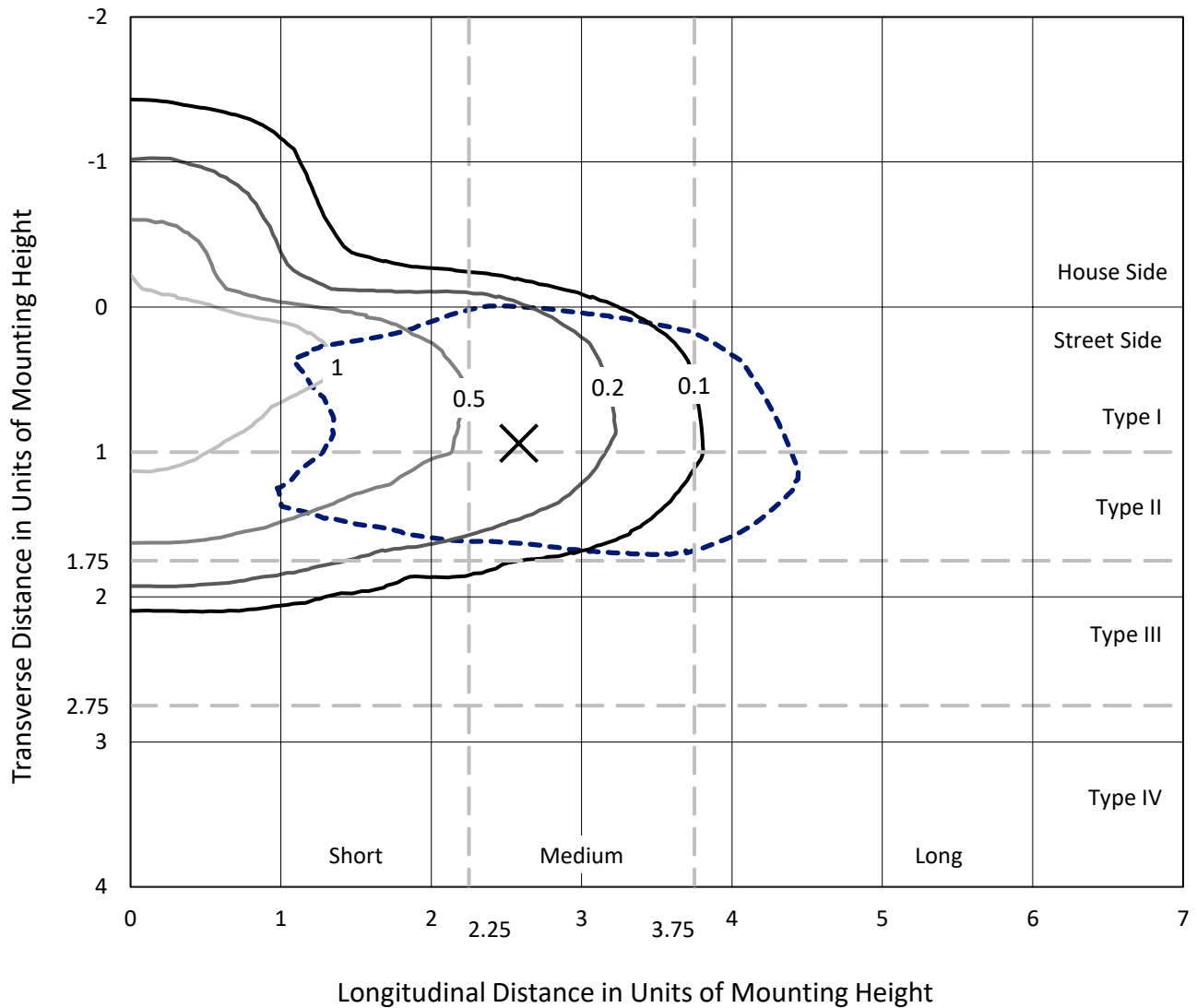
Input Watts (W): 66  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



REPORT NUMBER: P437943  
 CATALOG NUMBER: ISC-SA1F-830-U-T2

### Iso-Footcandle Lines of Horizontal Illumination

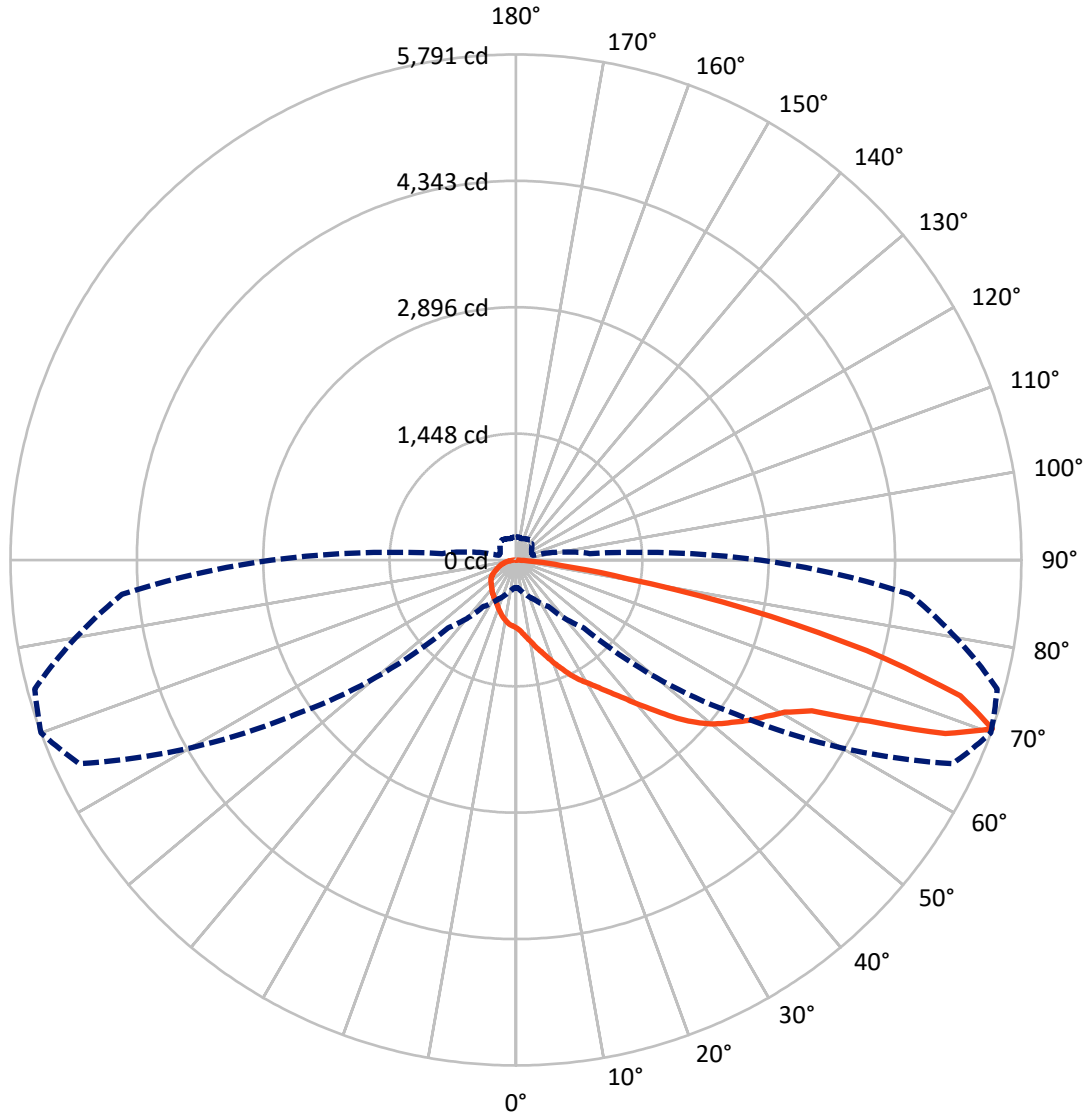
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.7 fc  
 Type II - Medium - N/A

REPORT NUMBER: P437943  
CATALOG NUMBER: ISC-SA1F-830-U-T2

### Luminous Intensity Polar Plot



— Vertical Plane Through 70-Deg Lateral      - - - Horizontal Cone Through 70-Deg Vertical

REPORT NUMBER: P437943  
 CATALOG NUMBER: ISC-SA1F-830-U-T2

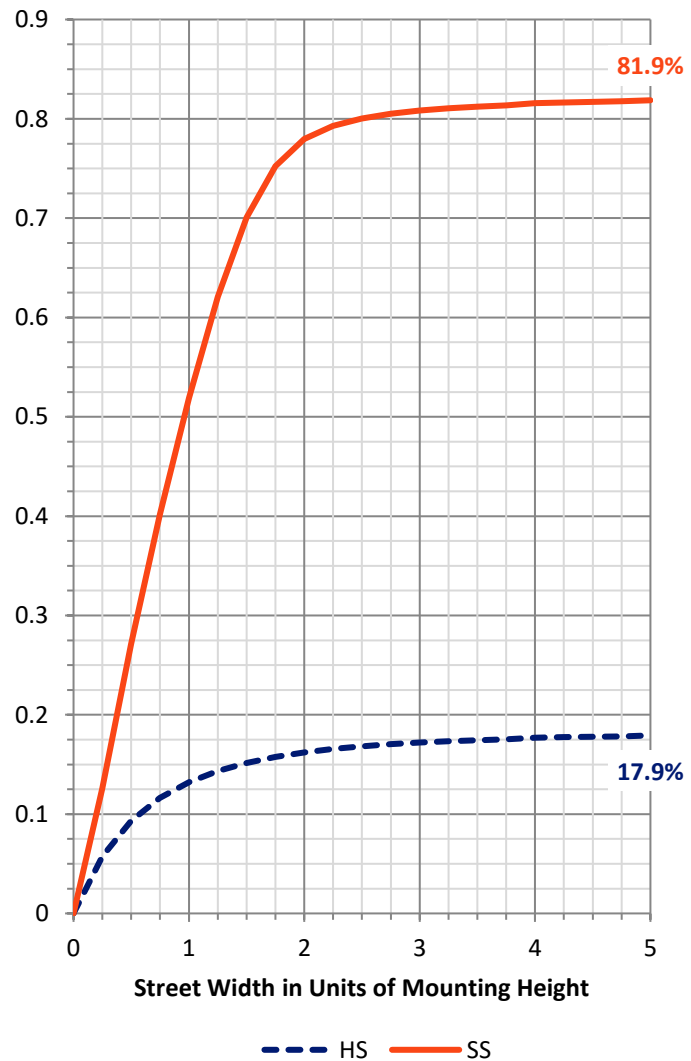
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1134.8	0.0	1134.8
	% Fixture	18.1	0.0	18.1
<b>Street Side</b>	Lumens	5139.2	0.0	5139.2
	% Fixture	81.9	0.0	81.9
<b>Total</b>	Lumens	6274.0	0.0	6274.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	78.1	1.2
10°-20°	250.9	4.0
20°-30°	439.0	7.0
30°-40°	653.2	10.4
40°-50°	965.8	15.4
50°-60°	1361.0	21.7
60°-70°	1514.7	24.1
70°-80°	916.2	14.6
80°-90°	95.1	1.5
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°	6274.0	100.0
0°-180°	6274.0	100.0



REPORT NUMBER: P437943

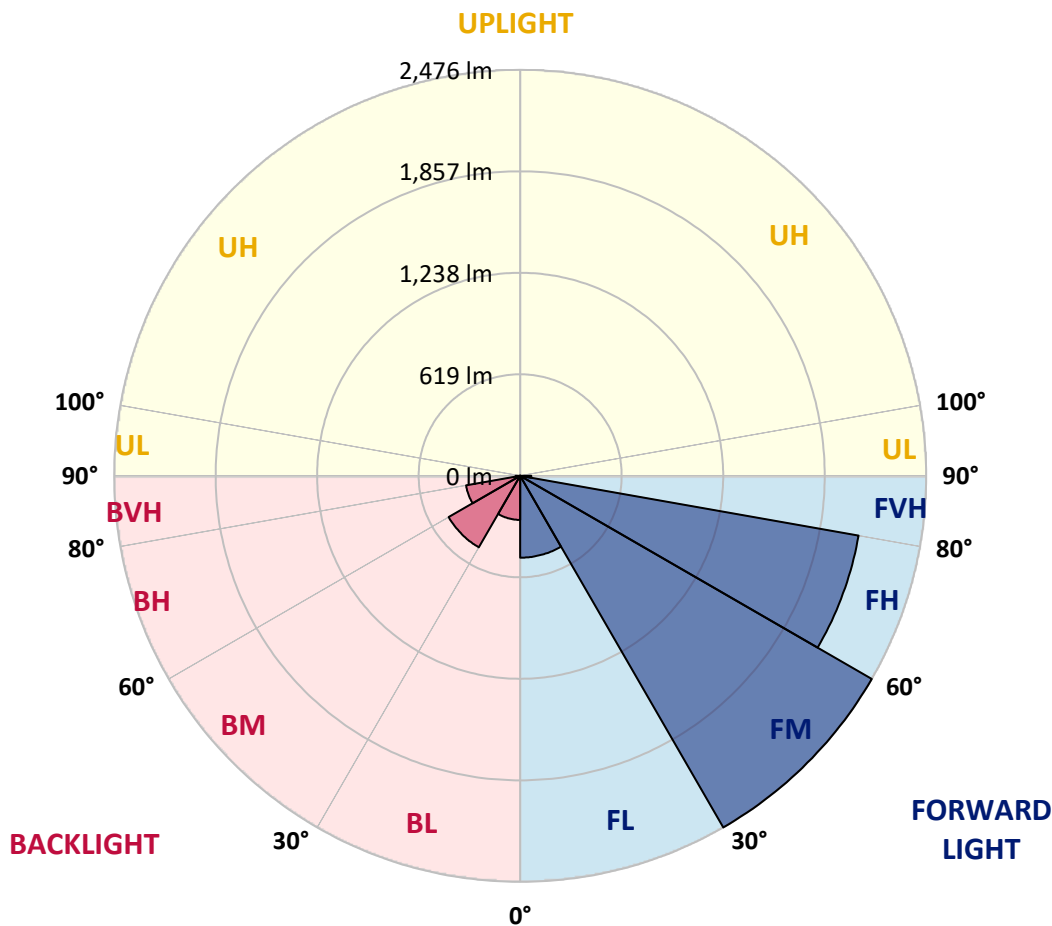
CATALOG NUMBER: ISC-SA1F-830-U-T2

**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	499.2	8.0			
FM (30°-60°)	2476.3	39.5			
FH (60°-80°)	2095.9	33.4			G2/5000
FVH (80°-90°)	67.8	1.1			G1/100
BL (0°-30°)	268.8	4.3	B1/500		
BM (30°-60°)	503.6	8.0	B1/1000		
BH (60°-80°)	335.0	5.3	B1/500		G1/500
BVH (80°-90°)	27.3	0.4			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G2**

Type II Medium





REPORT NUMBER: P437943

CATALOG NUMBER: ISC-SA1F-830-U-T2

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	70°	75°	85°
0°	777.1	777.1	777.1	777.1	777.1	777.1	777.1	777.1	777.1	777.1	777.1
2.5°	868.9	866.7	855.5	860.0	853.2	839.8	826.4	817.4	806.2	804.0	792.8
5°	958.5	956.3	949.5	940.6	927.2	911.5	886.8	864.4	846.5	830.9	810.7
7.5°	1021.2	1016.7	1016.7	1012.3	1005.5	987.6	954.0	924.9	898.0	877.9	833.1
10°	1057.0	1057.0	1057.0	1066.0	1066.0	1052.6	1025.7	985.4	954.0	929.4	864.4
12.5°	1072.7	1072.7	1077.2	1090.6	1110.8	1110.8	1088.4	1057.0	1025.7	983.1	898.0
15°	1083.9	1086.2	1092.9	1113.0	1142.1	1162.3	1162.3	1133.2	1090.6	1050.3	940.6
17.5°	1095.1	1097.4	1110.8	1135.4	1169.0	1207.1	1229.5	1209.3	1171.3	1126.5	980.9
20°	1097.4	1095.1	1117.5	1151.1	1200.4	1245.2	1301.1	1305.6	1265.3	1200.4	1027.9
22.5°	1119.7	1119.7	1128.7	1162.3	1216.0	1281.0	1366.1	1390.7	1354.9	1298.9	1086.2
25°	1164.5	1173.5	1180.2	1191.4	1231.7	1310.1	1422.1	1491.5	1457.9	1395.2	1146.6
27.5°	1247.4	1247.4	1254.1	1251.9	1265.3	1334.7	1480.3	1587.8	1554.2	1471.3	1184.7
30°	1328.0	1323.5	1330.3	1330.3	1325.8	1363.9	1522.9	1677.4	1641.5	1560.9	1229.5
32.5°	1433.3	1435.5	1431.0	1410.9	1404.2	1417.6	1556.4	1762.5	1742.3	1648.3	1269.8
35°	1576.6	1578.8	1554.2	1511.7	1489.3	1491.5	1601.2	1863.3	1865.5	1767.0	1319.1
37.5°	1702.0	1713.2	1711.0	1632.6	1594.5	1585.6	1668.4	1966.3	2006.6	1903.6	1395.2
40°	1818.5	1834.1	1829.7	1764.7	1715.5	1693.1	1773.7	2085.0	2179.0	2073.8	1487.0
42.5°	1903.6	1912.5	1917.0	1872.2	1827.4	1838.6	1883.4	2219.3	2367.1	2261.9	1610.2
45°	1995.4	1999.9	2006.6	1982.0	1950.6	2004.3	2020.0	2364.9	2586.6	2503.8	1755.8
47.5°	2089.4	2107.4	2114.1	2087.2	2067.1	2154.4	2167.8	2506.0	2781.5	2741.1	1901.3
50°	2241.7	2259.7	2252.9	2221.6	2203.7	2270.8	2300.0	2633.6	2953.9	2980.8	2042.4
52.5°	2438.8	2450.0	2479.1	2425.4	2385.1	2360.4	2409.7	2774.7	3092.7	3191.3	2192.5
55°	2476.9	2492.6	2597.8	2647.1	2680.7	2494.8	2526.1	2900.1	3242.8	3390.6	2360.4
57.5°	2320.1	2329.1	2499.3	2649.3	2891.2	2826.2	2691.9	3061.4	3381.6	3596.6	2530.6
60°	1930.4	1964.0	2185.7	2450.0	2833.0	3164.4	3121.9	3269.7	3538.4	3802.7	2777.0
62.5°	1258.6	1289.9	1525.1	1973.0	2512.7	3168.9	3737.7	3695.2	3804.9	4053.5	3086.0
65°	642.7	653.9	857.7	1195.9	1811.8	2833.0	4107.2	4573.0	4447.6	4555.1	3755.6
67.5°	427.7	436.7	528.5	689.8	1077.2	1961.8	3986.3	5459.9	5307.6	5365.8	4467.8
70°	315.8	324.7	400.9	499.4	651.7	1099.6	3083.8	5522.6	5791.3	5708.5	4530.5
72.5°	235.1	237.4	284.4	385.2	481.5	591.2	1822.9	4557.4	5323.3	5623.4	4210.2
75°	179.2	179.2	203.8	284.4	376.2	380.7	1016.7	3366.0	4152.0	4702.9	3511.5
77.5°	134.4	138.8	150.0	197.1	279.9	273.2	479.3	2228.3	2700.8	3065.9	2161.1
80°	96.3	98.5	105.3	120.9	185.9	176.9	241.9	1075.0	1287.7	1370.6	882.4
82.5°	60.5	60.5	73.9	73.9	105.3	109.7	109.7	434.5	519.6	582.3	295.6
85°	11.2	11.2	22.4	29.1	33.6	38.1	33.6	109.7	150.0	176.9	100.8
87.5°	0.0	0.0	0.0	2.2	2.2	4.5	4.5	4.5	4.5	4.5	4.5
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: P437943  
 CATALOG NUMBER: ISC-SA1F-830-U-T2

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	777.1	777.1	777.1	777.1	777.1	777.1	777.1	777.1	777.1	777.1	777.1
2.5°	783.8	779.3	768.1	754.7	745.8	736.8	730.1	725.6	723.4	723.4	721.1
5°	795.0	781.6	759.2	736.8	716.6	701.0	689.8	683.0	678.6	680.8	676.3
7.5°	812.9	788.3	748.0	712.2	685.3	665.1	656.2	651.7	653.9	656.2	656.2
10°	826.4	792.8	727.8	678.6	653.9	642.7	640.5	645.0	651.7	653.9	651.7
12.5°	842.0	795.0	705.4	649.5	633.8	627.1	638.3	649.5	660.7	669.6	665.1
15°	866.7	795.0	678.6	624.8	613.6	620.3	640.5	656.2	676.3	685.3	687.5
17.5°	884.6	788.3	645.0	597.9	595.7	613.6	642.7	669.6	689.8	705.4	705.4
20°	902.5	777.1	611.4	573.3	582.3	606.9	640.5	671.8	696.5	712.2	716.6
22.5°	924.9	761.4	577.8	550.9	566.6	597.9	633.8	660.7	683.0	696.5	698.7
25°	940.6	734.6	544.2	533.0	557.6	586.7	613.6	631.5	642.7	651.7	651.7
27.5°	949.5	703.2	517.3	519.6	546.4	571.1	584.5	584.5	589.0	589.0	586.7
30°	938.3	669.6	497.2	506.1	530.8	548.7	553.2	544.2	530.8	517.3	512.8
32.5°	933.9	624.8	477.0	492.7	510.6	519.6	517.3	503.9	479.3	459.1	459.1
35°	924.9	582.3	459.1	477.0	488.2	490.4	486.0	465.8	443.4	425.5	423.3
37.5°	918.2	548.7	443.4	459.1	465.8	468.1	459.1	441.2	427.7	414.3	412.1
40°	938.3	519.6	427.7	438.9	443.4	443.4	434.5	421.0	427.7	425.5	425.5
42.5°	976.4	508.4	412.1	418.8	423.3	427.7	421.0	409.8	425.5	412.1	416.5
45°	1032.4	508.4	400.9	403.1	407.6	418.8	416.5	400.9	403.1	371.8	365.0
47.5°	1115.3	521.8	391.9	385.2	396.4	412.1	405.3	387.4	369.5	344.9	342.6
50°	1209.3	548.7	383.0	367.3	385.2	403.1	396.4	374.0	353.8	340.4	338.2
52.5°	1303.4	582.3	376.2	349.4	365.0	398.6	396.4	371.8	342.6	333.7	331.4
55°	1419.8	613.6	365.0	329.2	349.4	394.2	394.2	358.3	335.9	333.7	331.4
57.5°	1552.0	653.9	347.1	302.3	329.2	380.7	378.5	349.4	331.4	327.0	329.2
60°	1722.2	703.2	320.2	277.7	311.3	360.6	365.0	340.4	322.5	320.2	320.2
62.5°	2011.1	795.0	288.9	255.3	288.9	333.7	344.9	324.7	311.3	313.5	315.8
65°	2566.5	967.5	253.1	235.1	266.5	304.6	327.0	309.1	295.6	304.6	304.6
67.5°	2978.5	1043.6	223.9	215.0	244.1	282.2	306.8	291.1	277.7	288.9	288.9
70°	2799.4	848.8	201.6	197.1	219.5	257.5	279.9	266.5	253.1	264.3	262.0
72.5°	2485.8	674.1	176.9	176.9	194.8	228.4	253.1	239.6	221.7	226.2	223.9
75°	2176.8	624.8	154.5	154.5	170.2	197.1	217.2	210.5	192.6	190.4	185.9
77.5°	1256.4	416.5	129.9	132.1	138.8	163.5	183.6	163.5	150.0	147.8	145.6
80°	494.9	203.8	105.3	103.0	103.0	123.2	132.1	123.2	112.0	109.7	105.3
82.5°	179.2	103.0	80.6	71.7	73.9	89.6	103.0	96.3	87.3	69.4	64.9
85°	69.4	51.5	53.7	42.6	47.0	47.0	53.7	44.8	31.4	22.4	22.4
87.5°	4.5	4.5	4.5	4.5	2.2	2.2	0.0	0.0	2.2	2.2	2.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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



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.

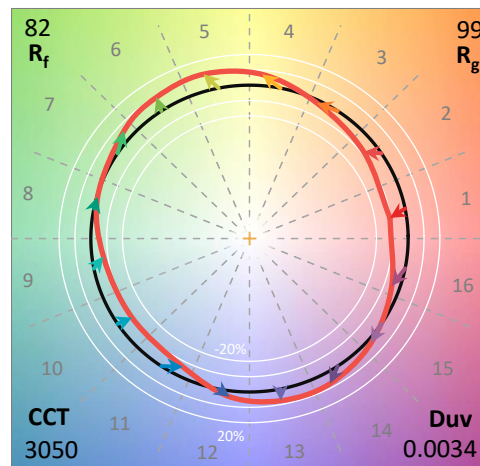
**Test Information**

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  
 Rf: 81.5  
 Rg: 99.2

CRI (Ra):	81.0		
R1:	79.6	R9:	7.1
R2:	85.6	R10:	67.0
R3:	92.0	R11:	82.7
R4:	82.6	R12:	63.2
R5:	78.9	R13:	80.3
R6:	81.7	R14:	95.0
R7:	85.2	R15:	71.7
R8:	62.0		



**Test Conditions**

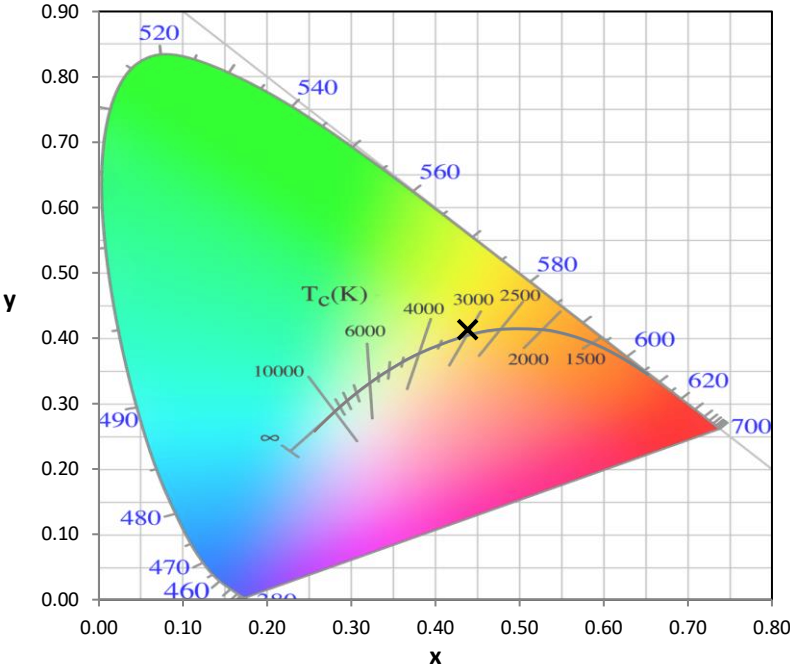
Stabilization Time: 20M  
 Operation Time: 1H 20M  
 Sphere Temperature (°C): 24.2

REPORT NUMBER: SP1-2408-195-9

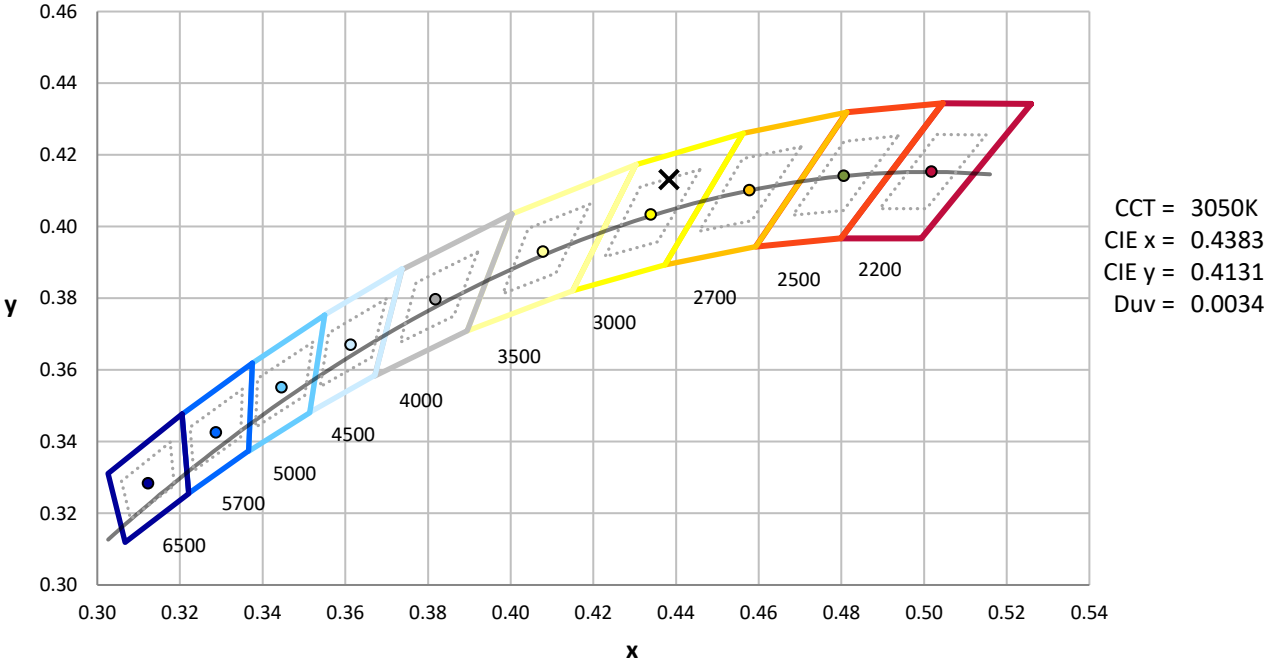
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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



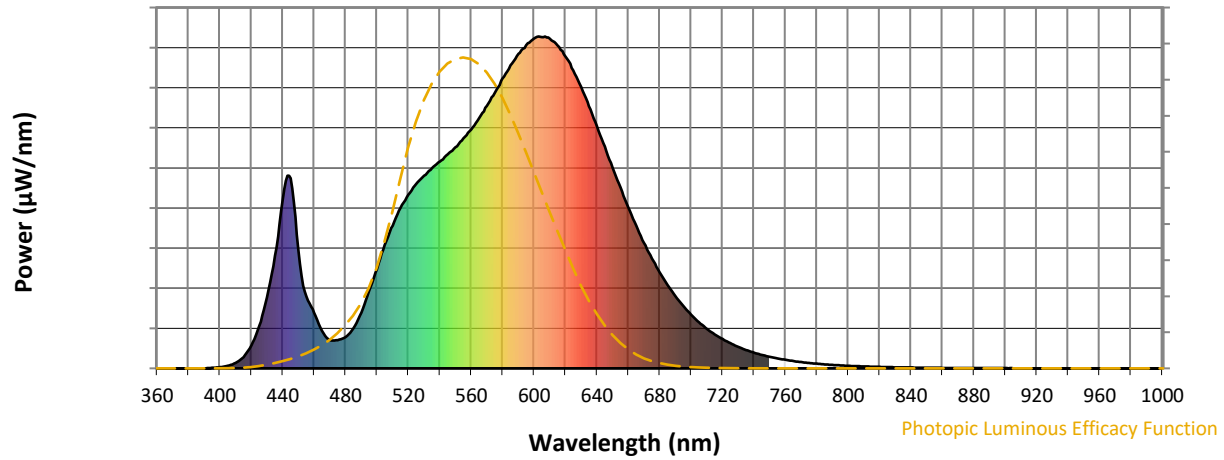
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 3000K 4-step quadrangle

REPORT NUMBER: SP1-2408-195-9

**Photopic Flux vs. Wavelength**

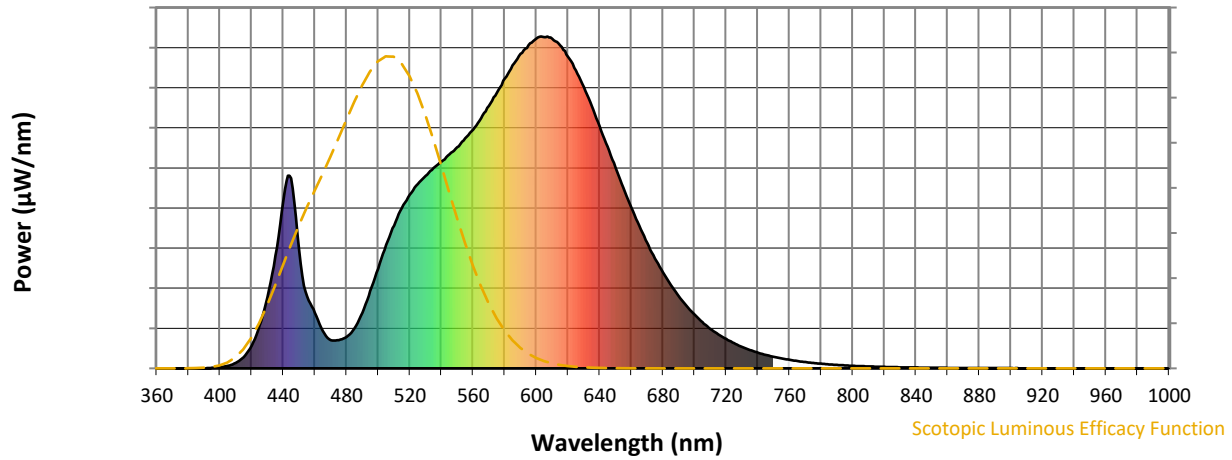


**Photopic Lumens: NR**

$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /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**



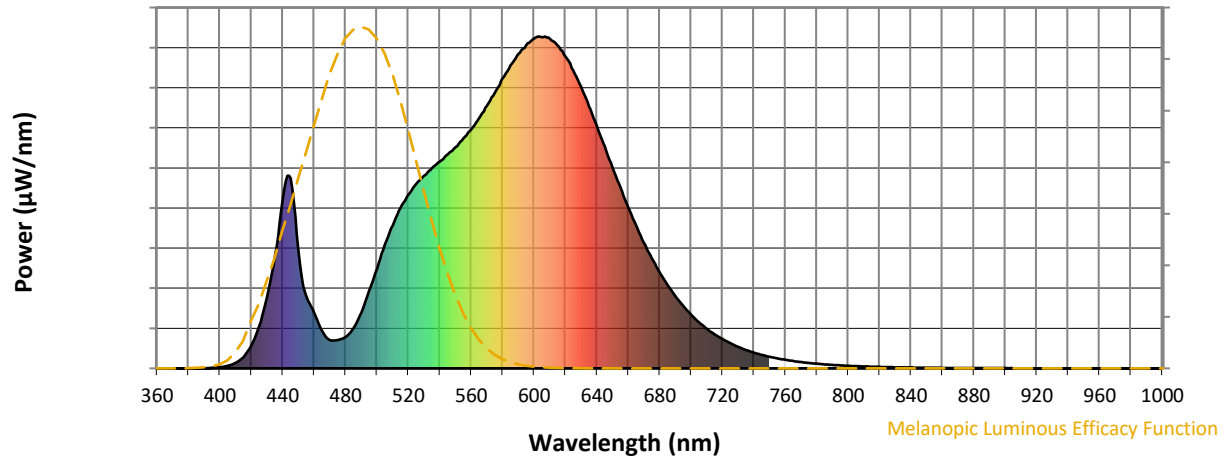
**Scotopic Lumens: NR**

**S/P: 1.27**

λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /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**



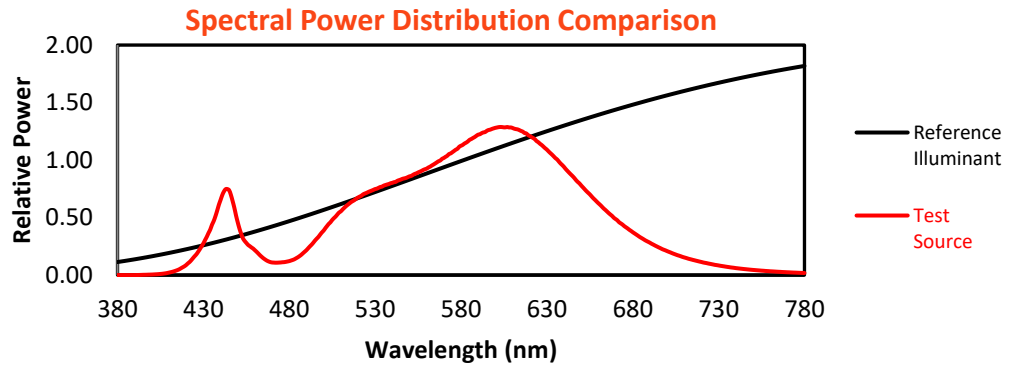
**Melanopic Lumens: NR**

**M/P: 2.32**

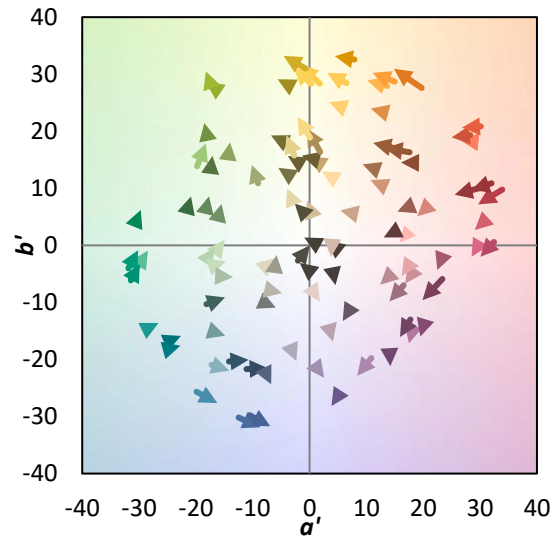
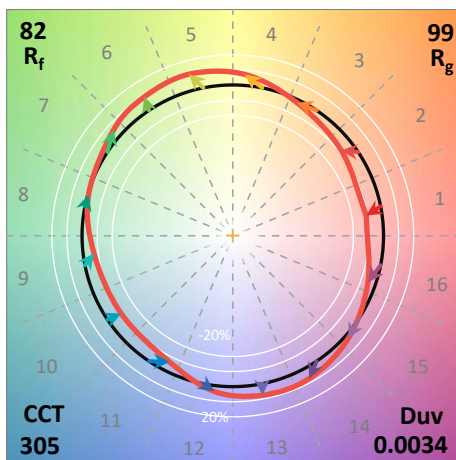
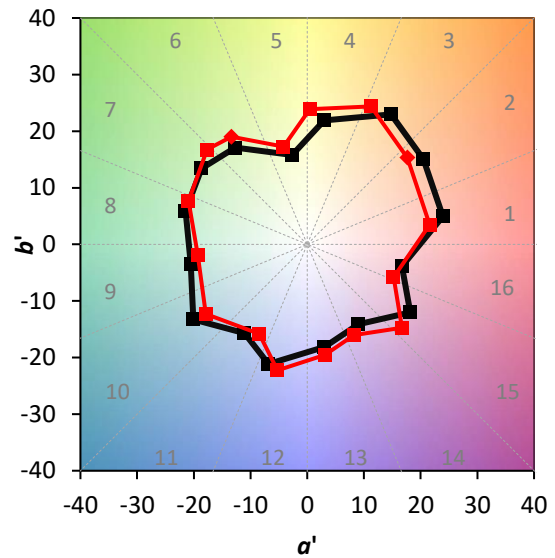
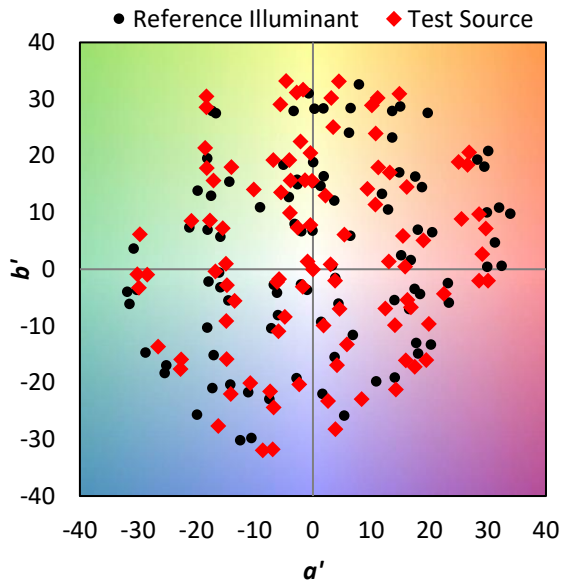
λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)
360	0	NR	490	168	NR	620	940	NR	750	35	NR	880	1	NR
365	0	NR	495	233	NR	625	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			

**Summary**

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



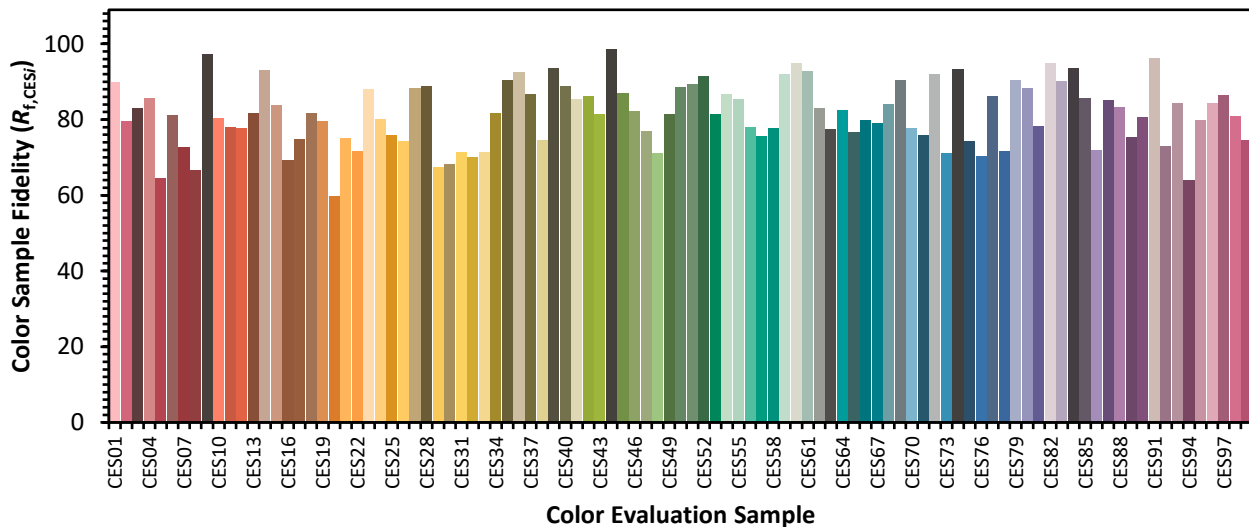
**Color Vector Graphics**



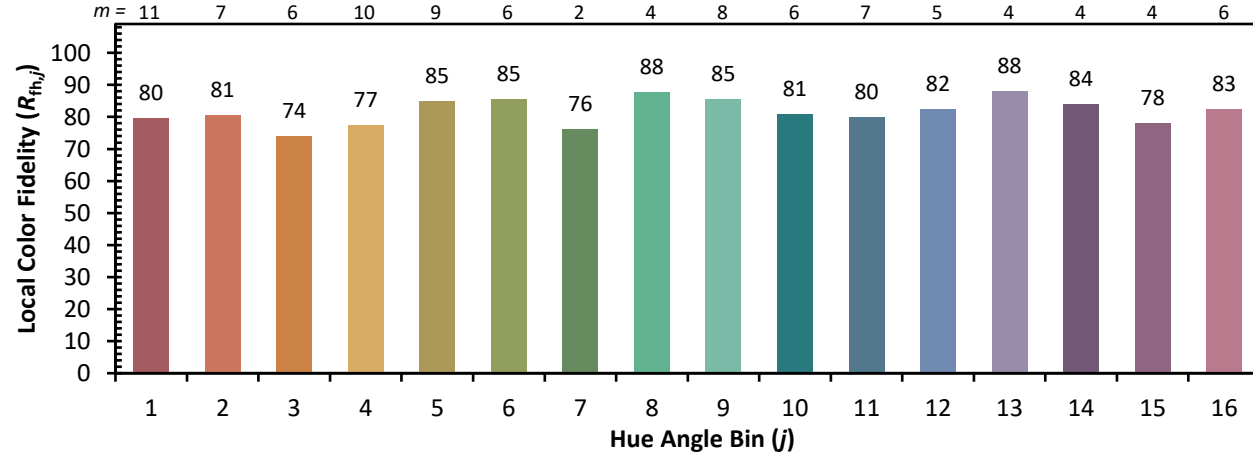
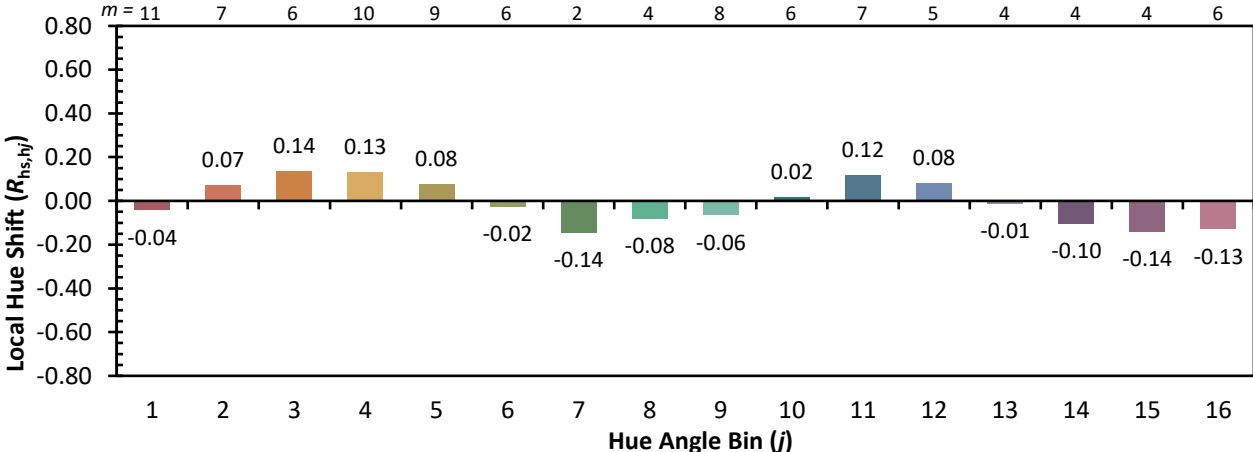
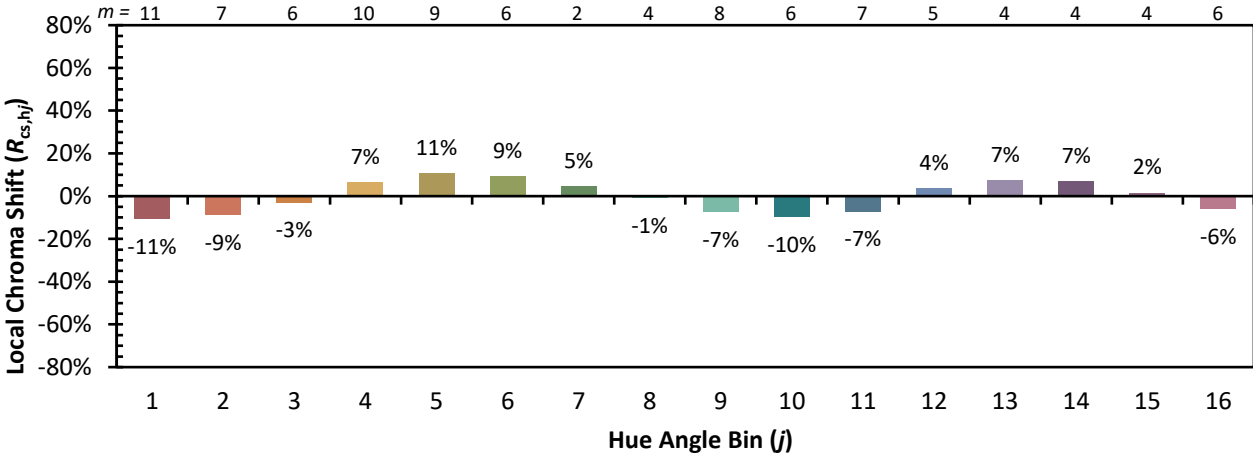


**Individual Sample Fidelity Index ( $R_{f,i}$ )**

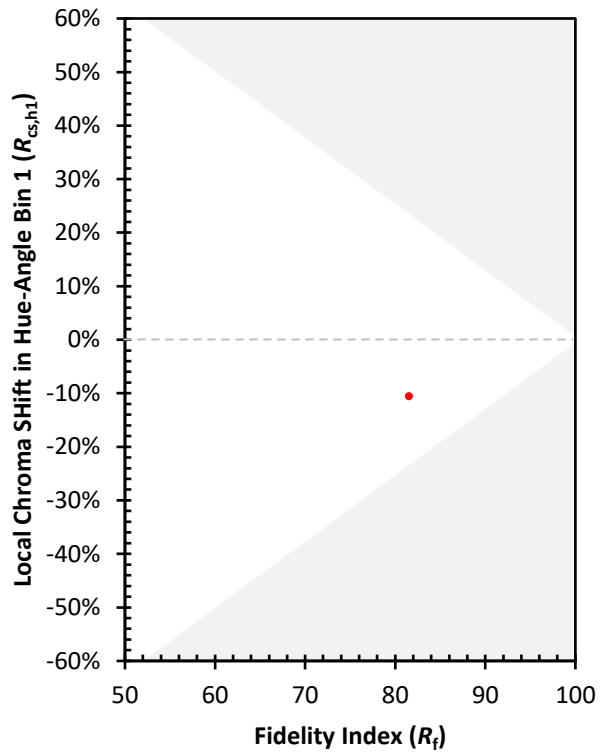
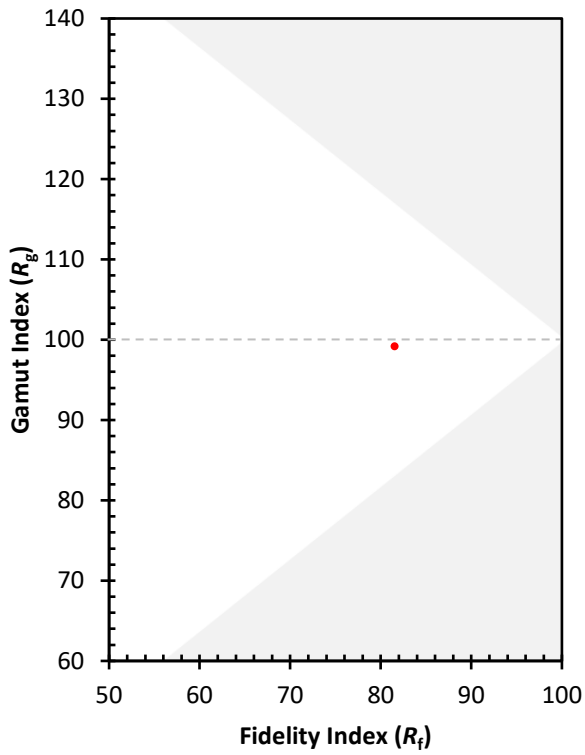
CES01 = 86	CES26 = 74	CES51 = 89	CES76 = 70
CES02 = 63	CES27 = 88	CES52 = 92	CES77 = 86
CES03 = 31	CES28 = 89	CES53 = 81	CES78 = 72
CES04 = 70	CES29 = 67	CES54 = 87	CES79 = 90
CES05 = 50	CES30 = 68	CES55 = 85	CES80 = 88
CES06 = 51	CES31 = 71	CES56 = 78	CES81 = 78
CES07 = 42	CES32 = 70	CES57 = 76	CES82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