

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: P437077

Luminaire Tested: **ISS-SA1A-830-U-SL2-HSS**

Issue Date: 12/9/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P437077  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-074-15)  
Test Lab: INNOVATION CENTER  
Issue Date: 12/9/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: ISS-SA1A-830-U-SL2-HSS  
Description: IMPACT ELITE LED QUARTER SPHERE LUMINAIRE  
(1) 80 CRI, 3000K, 350mA LIGHTSQUARE WITH 16 LEDS 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: 1811 lumens  
Efficiency: N/A  
Efficacy: 90.1 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B0 - U0 - G1

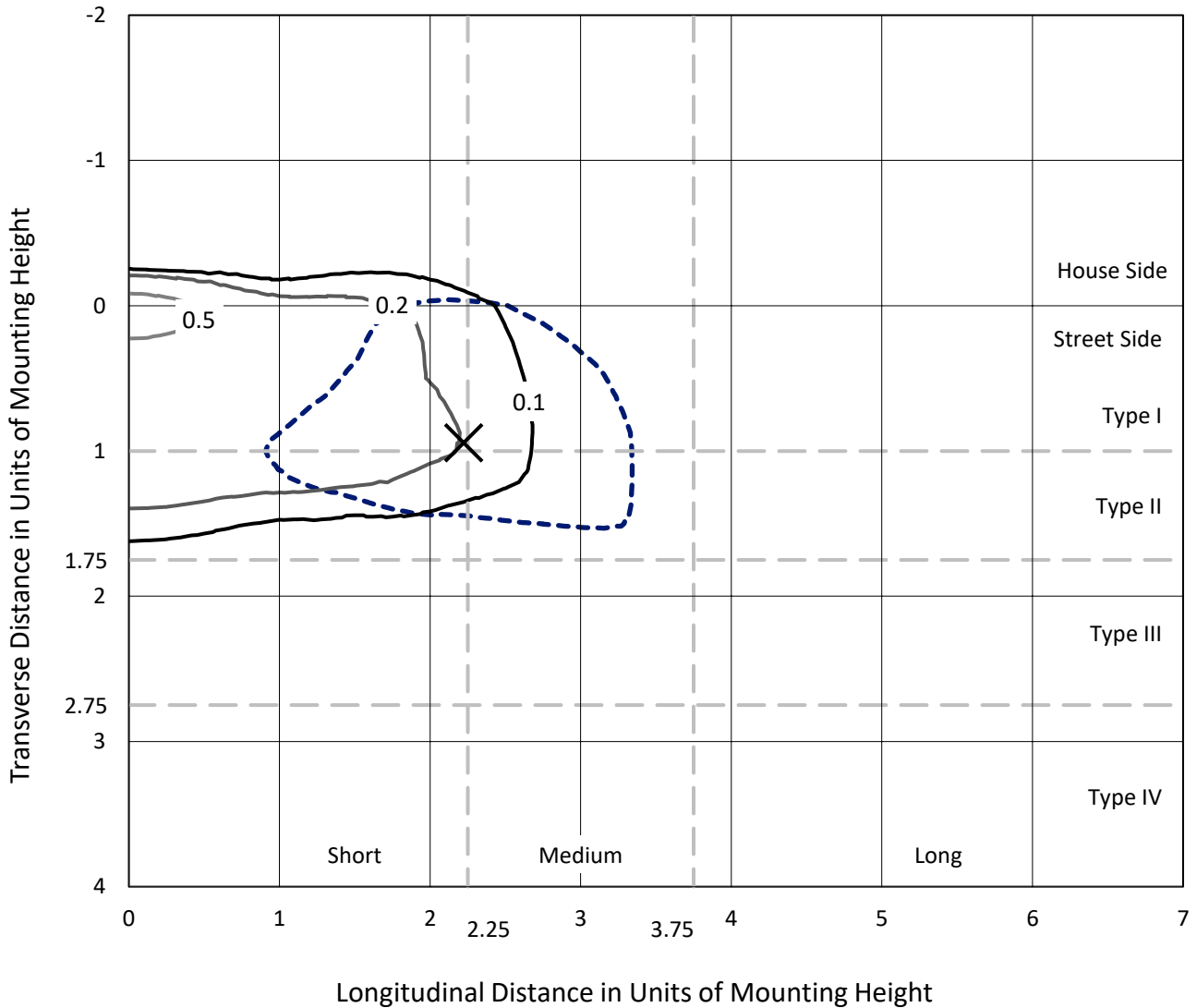
Input Watts (W): 20.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

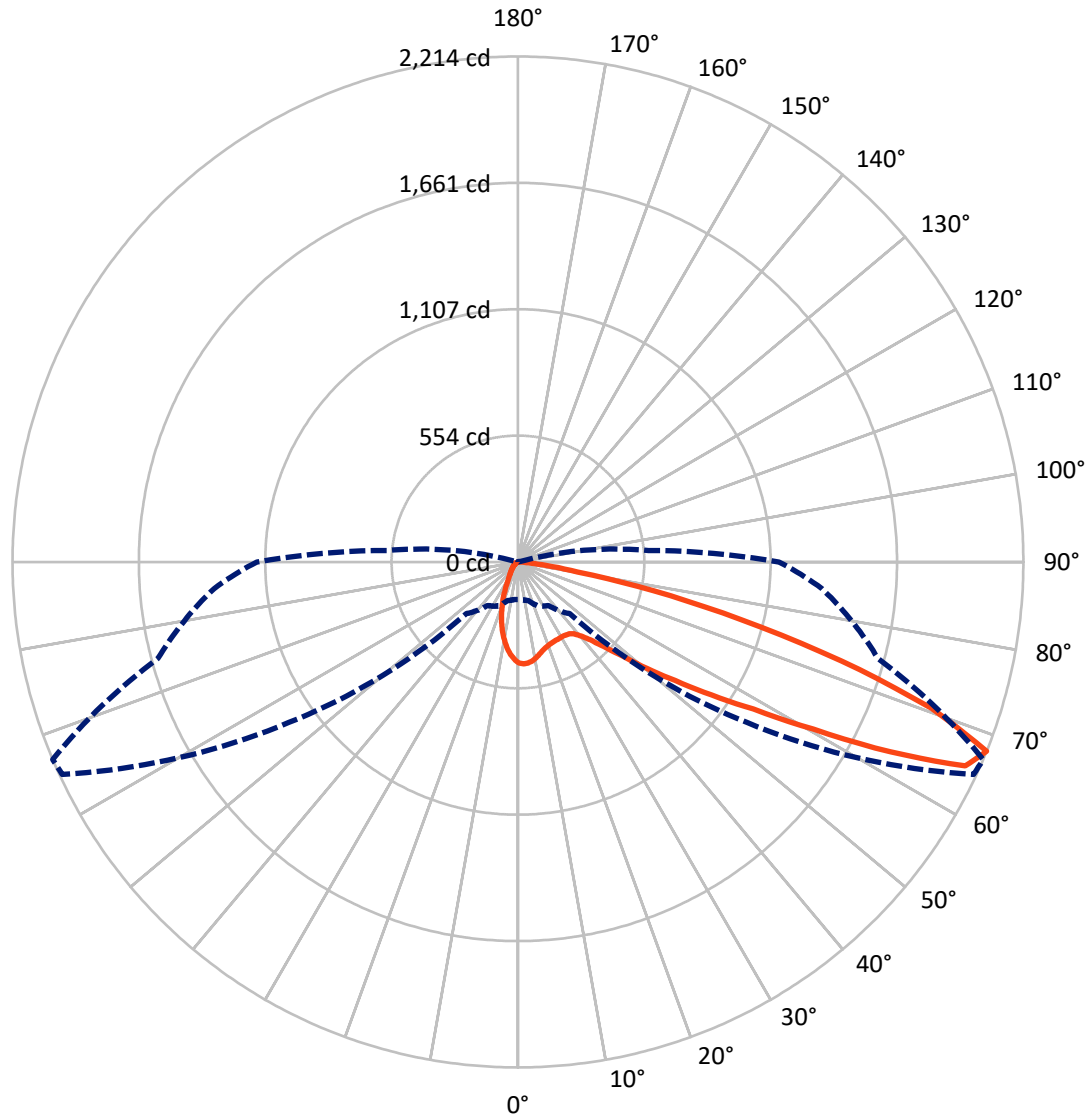
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 0.7 fc  
 Type II - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 67-Deg Lateral    - - - Horizontal Cone Through 67.5-Deg Vertical

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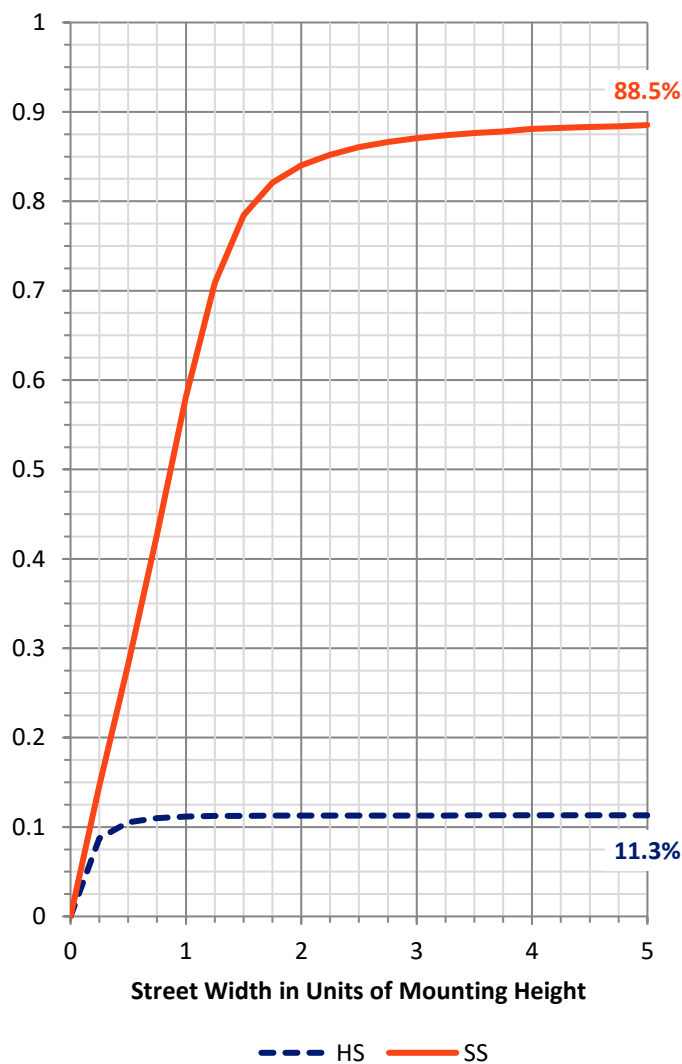
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	206.7	0.0	206.7
	% Fixture	11.4	0.0	11.4
<b>Street Side</b>	Lumens	1604.3	0.0	1604.3
	% Fixture	88.6	0.0	88.6
<b>Total</b>	Lumens	1811.0	0.0	1811.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	36.0	2.0
10°-20°	78.1	4.3
20°-30°	111.8	6.2
30°-40°	164.6	9.1
40°-50°	271.9	15.0
50°-60°	437.3	24.1
60°-70°	476.8	26.3
70°-80°	217.0	12.0
80°-90°	17.5	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°	1811.0	100.0
0°-180°	1811.0	100.0

**Coefficient of Utilization**



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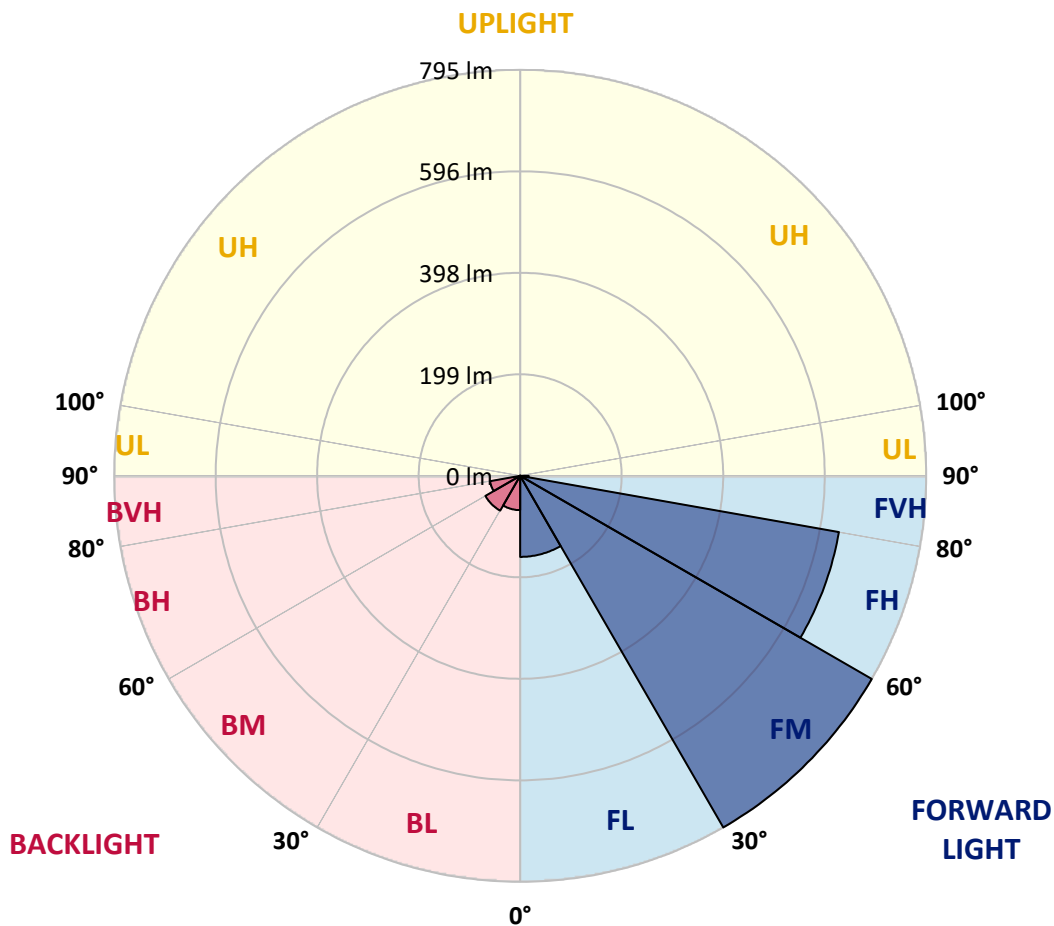
CATALOG NUMBER: ISS-SA1A-830-U-SL2-HSS

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	158.8	8.8			
FM (30°-60°)	795.1	43.9			
FH (60°-80°)	633.9	35.0			G0/660
FVH (80°-90°)	16.6	0.9			G1/100
BL (0°-30°)	67.1	3.7	B0/110		
BM (30°-60°)	78.7	4.3	B0/220		
BH (60°-80°)	60.0	3.3	B0/110		G0/110
BVH (80°-90°)	0.9	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B0-U0-G1**

Type II Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	441.9	441.9	441.9	441.9	441.9	441.9	441.9	441.9	441.9	441.9	441.9
2.5°	436.3	440.3	441.1	442.7	442.7	445.1	445.9	447.5	446.7	447.5	445.9
5°	406.1	409.3	407.7	415.7	420.4	429.2	437.9	445.1	445.1	447.5	446.7
7.5°	375.9	379.1	379.1	385.5	393.4	406.1	420.4	437.1	438.7	446.7	444.3
10°	352.1	353.7	355.3	362.4	372.0	384.7	403.7	425.2	428.4	441.9	442.7
12.5°	333.0	335.4	337.8	344.9	353.7	366.4	384.7	409.3	414.9	434.0	441.1
15°	323.5	323.5	325.9	332.2	340.2	353.7	370.4	399.0	403.7	429.2	440.3
17.5°	318.7	319.5	321.1	324.3	330.6	341.8	360.0	387.9	394.2	425.2	440.3
20°	325.1	325.1	322.7	324.3	327.4	336.2	352.9	379.9	387.9	422.8	444.3
22.5°	338.6	338.6	334.6	332.2	329.8	333.0	348.1	376.7	383.9	422.8	446.7
25°	359.2	359.2	356.9	349.7	339.4	337.0	348.9	375.9	381.5	423.6	449.8
27.5°	383.9	384.7	382.3	374.3	358.4	344.9	351.3	374.3	380.7	422.8	451.4
30°	416.5	419.6	416.5	405.3	386.3	360.8	356.9	373.5	379.9	421.2	452.2
32.5°	449.1	451.4	454.6	447.5	420.4	385.5	368.8	376.7	382.3	422.0	450.6
35°	480.8	487.2	492.8	495.1	467.3	420.4	388.6	383.9	386.3	424.4	450.6
37.5°	515.0	521.4	533.3	545.2	522.2	459.4	418.1	399.8	399.8	432.4	455.4
40°	558.7	561.9	585.0	599.3	588.1	522.2	460.2	426.8	426.0	454.6	468.9
42.5°	600.9	609.6	639.8	661.3	654.1	596.1	511.0	474.5	466.5	490.4	493.6
45°	662.1	675.6	699.4	731.2	738.4	678.7	589.7	535.7	527.7	543.6	534.9
47.5°	719.3	728.8	751.9	792.4	833.7	785.2	678.7	621.5	614.4	620.7	606.4
50°	737.6	742.3	768.6	818.6	916.4	937.8	801.1	732.8	732.0	727.2	703.4
52.5°	705.8	706.6	736.8	798.0	950.6	1104.7	974.4	876.6	863.1	852.8	821.0
55°	608.8	616.0	641.4	717.7	917.2	1200.9	1251.8	1050.7	1028.4	991.1	951.4
57.5°	476.1	472.9	493.6	563.5	814.6	1239.1	1525.2	1271.6	1216.0	1104.0	1050.7
60°	346.5	338.6	352.1	391.8	592.1	1164.4	1683.3	1583.2	1487.8	1225.6	1173.1
62.5°	257.5	257.5	271.8	290.1	363.2	908.4	1708.0	1940.1	1832.8	1379.7	1302.6
65°	205.8	205.1	217.0	244.8	259.1	563.5	1584.0	2194.4	2153.9	1540.3	1387.7
67.5°	164.5	164.5	174.9	213.0	232.9	320.3	1225.6	2202.3	2214.3	1632.5	1336.0
70°	116.0	120.0	132.7	178.0	224.9	244.8	743.1	1891.6	1922.6	1604.7	1198.5
72.5°	65.2	68.4	91.4	131.9	216.2	235.3	415.7	1429.0	1481.5	1344.8	977.6
75°	31.0	34.2	53.3	90.6	180.4	224.1	252.7	1013.3	1006.2	873.5	607.2
77.5°	13.5	15.1	23.8	52.5	128.0	209.0	185.2	633.4	604.8	410.1	255.1
80°	4.8	5.6	10.3	30.2	72.3	170.9	154.2	292.5	264.7	113.7	66.8
82.5°	0.8	0.8	4.0	14.3	32.6	95.4	127.2	139.9	120.8	28.6	28.6
85°	0.0	0.0	0.8	4.8	7.9	8.7	57.2	56.4	46.9	9.5	14.3
87.5°	0.0	0.0	0.0	0.8	0.8	1.6	1.6	1.6	1.6	1.6	2.4
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: ISS-SA1A-830-U-SL2-HSS

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	441.9	441.9	441.9	441.9	441.9	441.9	441.9	441.9	441.9	441.9	441.9
2.5°	441.9	441.1	433.2	426.0	416.5	408.5	401.4	394.2	391.0	391.8	393.4
5°	442.7	437.9	421.2	403.0	383.9	364.8	346.5	335.4	326.7	323.5	326.7
7.5°	438.7	430.8	405.3	375.9	345.7	312.3	284.5	263.9	248.8	239.2	243.2
10°	435.5	423.6	386.3	341.8	298.8	255.1	215.4	186.0	165.3	153.4	151.0
12.5°	430.0	415.7	364.0	307.6	248.0	188.4	140.7	109.7	93.0	84.2	86.6
15°	428.4	406.1	341.8	267.8	193.9	127.2	85.0	67.6	60.4	58.8	58.8
17.5°	426.8	399.8	317.9	228.9	139.1	79.5	58.8	54.0	52.5	51.7	52.5
20°	425.2	391.0	294.1	186.8	93.8	57.2	50.9	48.5	46.9	46.9	46.1
22.5°	426.8	385.5	271.8	147.0	64.4	48.5	44.5	42.9	41.3	40.5	40.5
25°	425.2	378.3	244.8	108.1	50.1	42.9	39.7	36.6	35.0	34.2	33.4
27.5°	422.8	369.6	219.4	77.9	43.7	38.1	34.2	31.0	28.6	27.8	27.8
30°	420.4	358.4	190.0	57.2	39.7	34.2	29.4	26.2	23.8	22.3	22.3
32.5°	414.1	348.1	161.3	46.1	35.8	30.2	25.4	21.5	19.9	19.1	19.1
35°	410.1	336.2	131.1	39.7	32.6	26.2	21.5	18.3	16.7	15.9	15.9
37.5°	409.3	323.5	104.1	35.8	29.4	23.0	18.3	15.9	14.3	13.5	13.5
40°	412.5	317.1	80.3	32.6	25.4	19.9	15.9	13.5	11.9	11.1	11.1
42.5°	425.2	316.3	61.2	29.4	23.0	17.5	14.3	11.1	9.5	8.7	8.7
45°	453.8	321.1	48.5	27.0	19.9	15.1	11.9	9.5	7.9	7.2	7.2
47.5°	500.7	341.0	40.5	24.6	16.7	12.7	9.5	7.9	5.6	5.6	5.6
50°	577.0	383.1	35.8	21.5	14.3	10.3	7.9	5.6	4.0	4.0	4.0
52.5°	689.9	447.5	32.6	19.1	11.9	8.7	6.4	4.0	3.2	3.2	3.2
55°	806.7	527.7	30.2	15.9	10.3	7.2	4.8	3.2	2.4	2.4	1.6
57.5°	913.2	593.7	27.0	13.5	7.9	5.6	3.2	2.4	1.6	1.6	1.6
60°	1039.6	659.7	23.0	10.3	6.4	4.0	2.4	1.6	0.8	0.8	0.8
62.5°	1162.0	697.0	19.1	7.9	4.8	3.2	1.6	0.8	0.8	0.8	0.8
65°	1215.2	679.5	15.1	6.4	4.0	2.4	0.8	0.8	0.8	0.0	0.0
67.5°	1143.7	574.6	11.9	4.8	3.2	1.6	0.8	0.8	0.0	0.0	0.0
70°	984.7	464.9	9.5	4.0	2.4	0.8	0.8	0.8	0.0	0.0	0.0
72.5°	773.3	342.6	7.9	3.2	1.6	0.8	0.8	0.8	0.0	0.0	0.0
75°	470.5	172.5	7.2	2.4	1.6	1.6	0.8	0.8	0.8	0.0	0.0
77.5°	159.8	54.0	4.8	2.4	1.6	1.6	0.8	0.8	0.8	0.8	0.8
80°	46.9	17.5	4.0	1.6	1.6	0.8	0.8	0.8	0.8	0.8	0.8
82.5°	24.6	7.9	2.4	1.6	0.8	0.8	0.8	0.8	0.8	0.8	0.8
85°	13.5	4.0	1.6	0.8	0.8	0.8	0.0	0.0	0.8	0.8	0.8
87.5°	2.4	1.6	1.6	0.8	0.8	0.8	0.0	0.0	0.0	0.8	0.8
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.

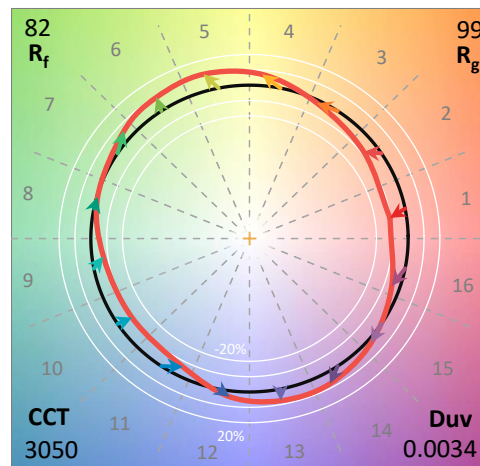
**Test Information**

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**

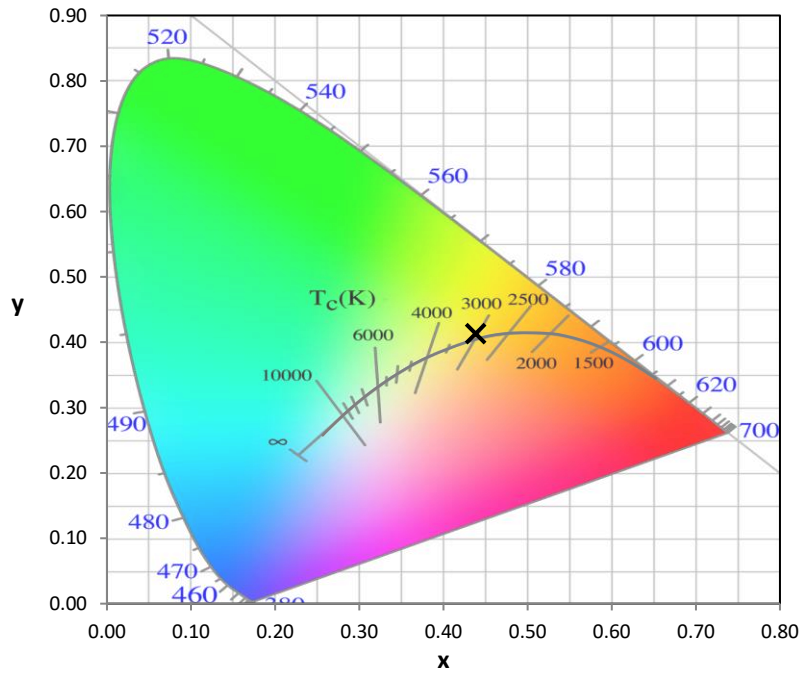
Stabilization Time: 20M  
 Operation Time: 1H 20M  
 Sphere Temperature (°C): 24.2

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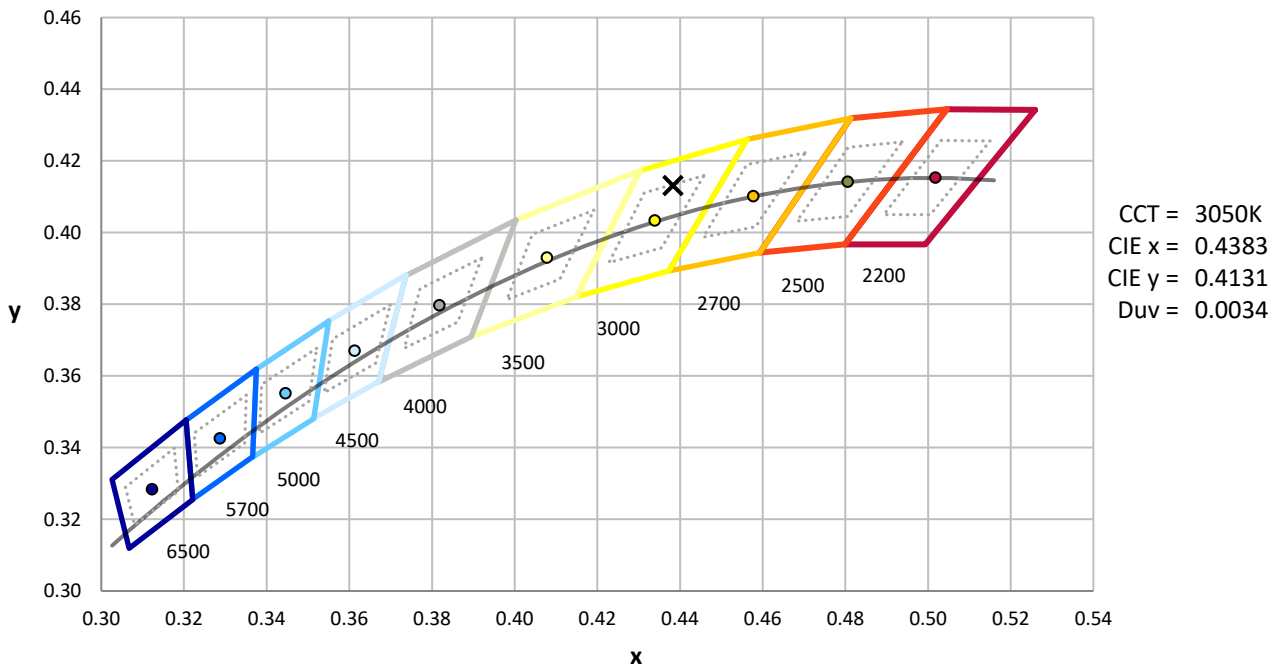
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085	10/24/2023	10/24/2024
Room Thermometer	IN0046	10/24/2023	10/24/2024

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**CIE 1931 Chromaticity Diagram**



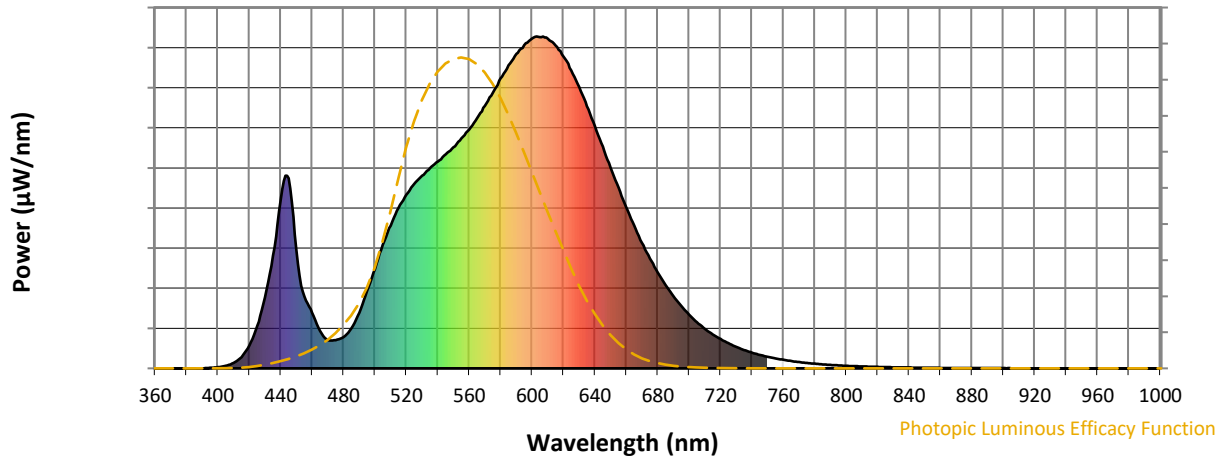
**CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles**



Point lies inside the ANSI 3000K 4-step quadrangle

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**Photopic Flux vs. Wavelength**

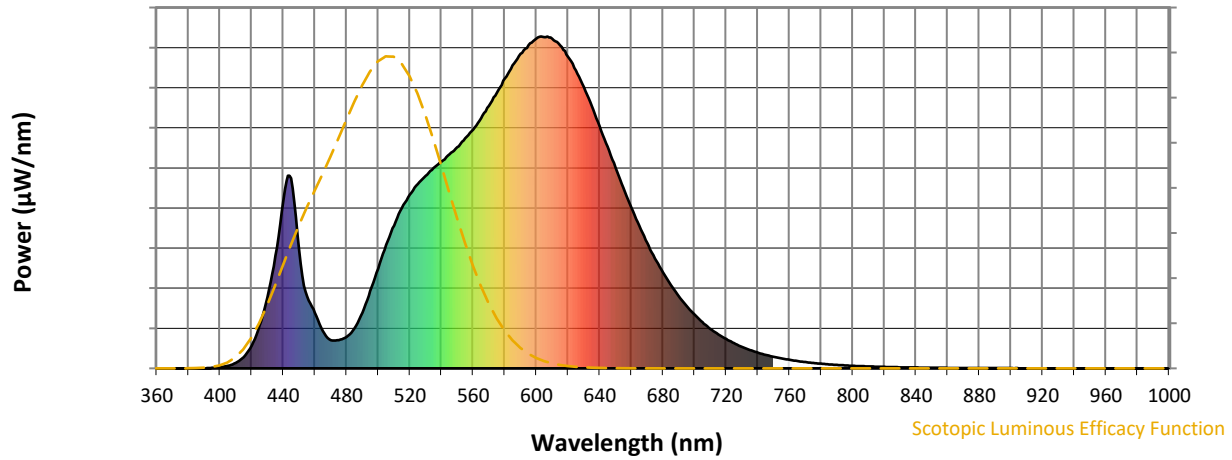


**Photopic Lumens: NR**

$\lambda$ (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**



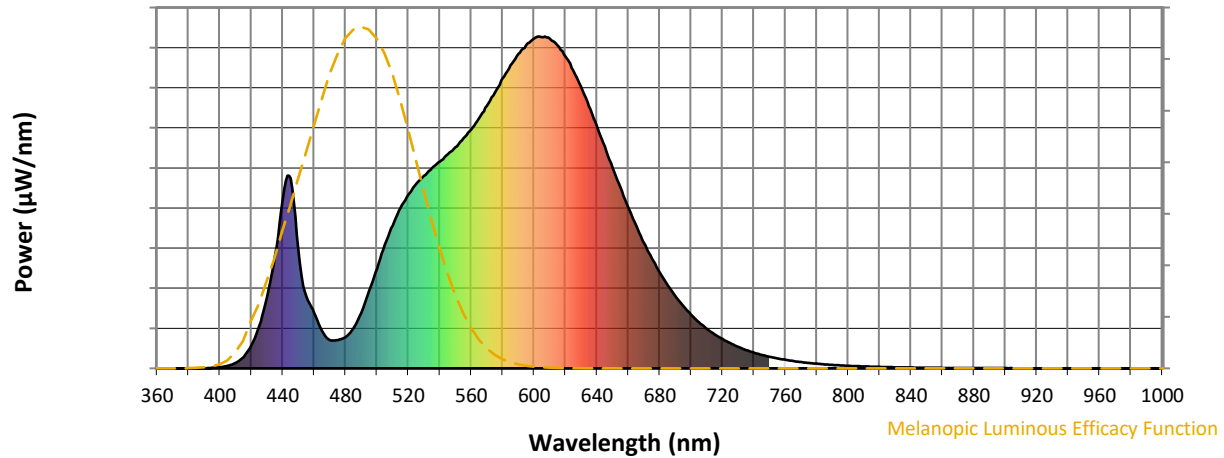
**Scotopic Lumens: NR**

**S/P: 1.27**

$\lambda$ (nm)	Power $W^{\wedge}/nm$	Lumens ( $\phi/nm$ )	$\lambda$ (nm)	Power $W^{\wedge}/nm$	Lumens ( $\phi/nm$ )	$\lambda$ (nm)	Power $W^{\wedge}/nm$	Lumens ( $\phi/nm$ )	$\lambda$ (nm)	Power $W^{\wedge}/nm$	Lumens ( $\phi/nm$ )	$\lambda$ (nm)	Power $W^{\wedge}/nm$	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			

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**Melanopic Flux vs. Wavelength**



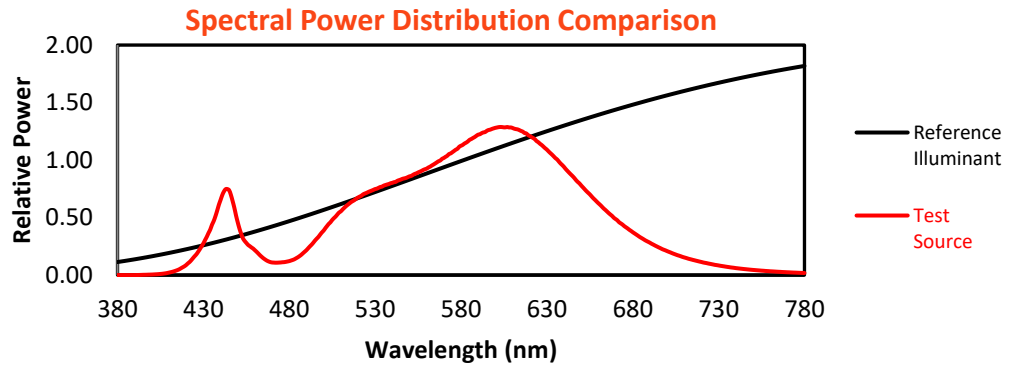
**Melanopic Lumens: NR**

**M/P: 2.32**

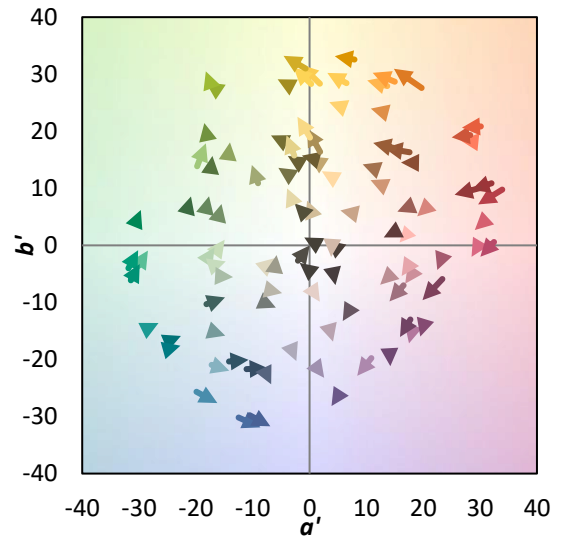
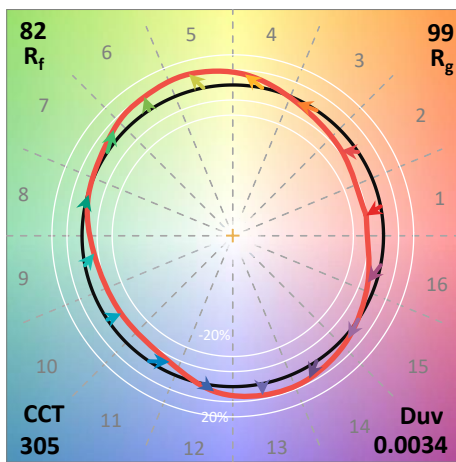
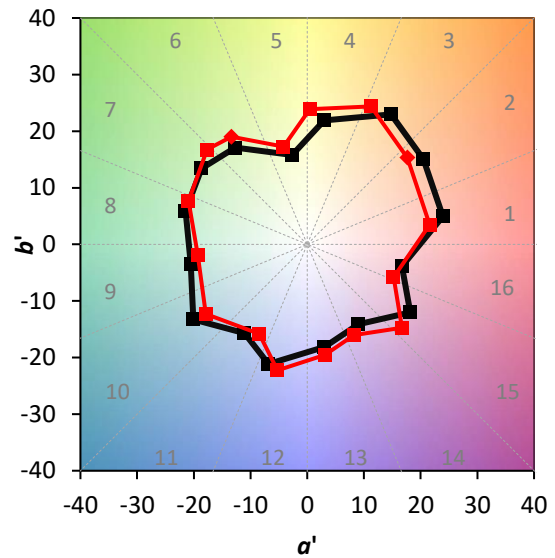
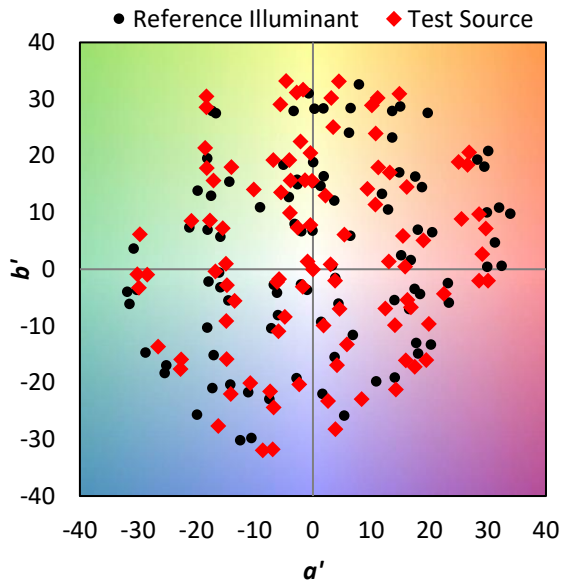
λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)
360	0	NR	490	168	NR	620	940	NR	750	35	NR	880	1	NR
365	0	NR	495	233	NR	625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

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



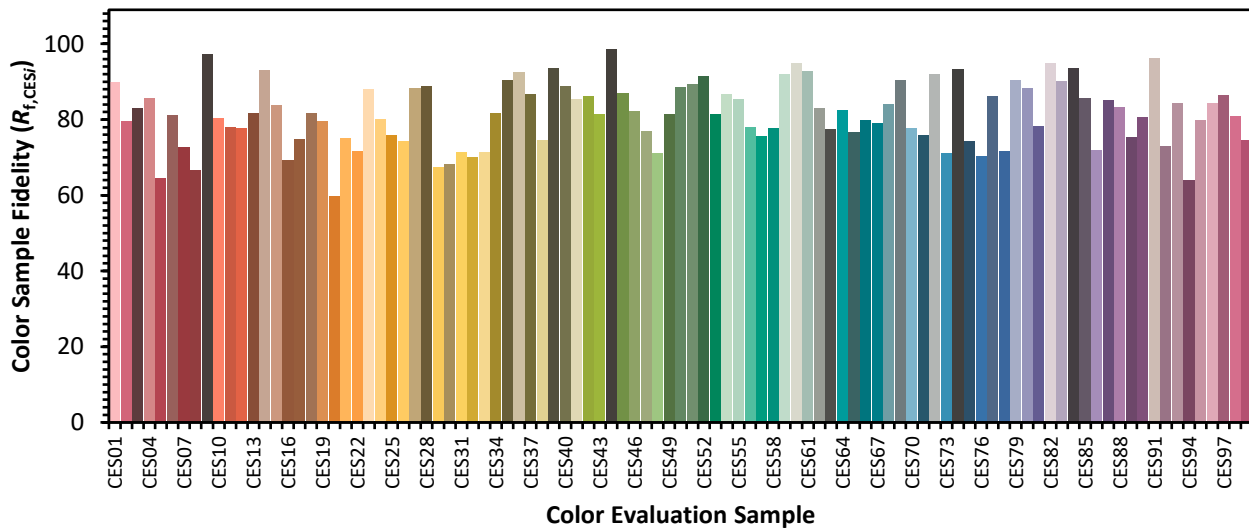
**Color Vector Graphics**



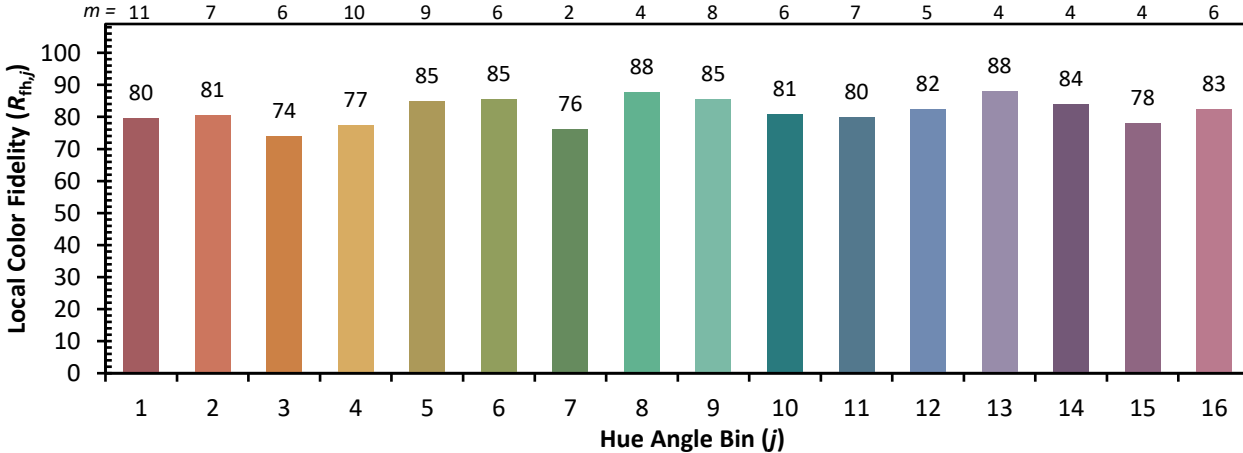
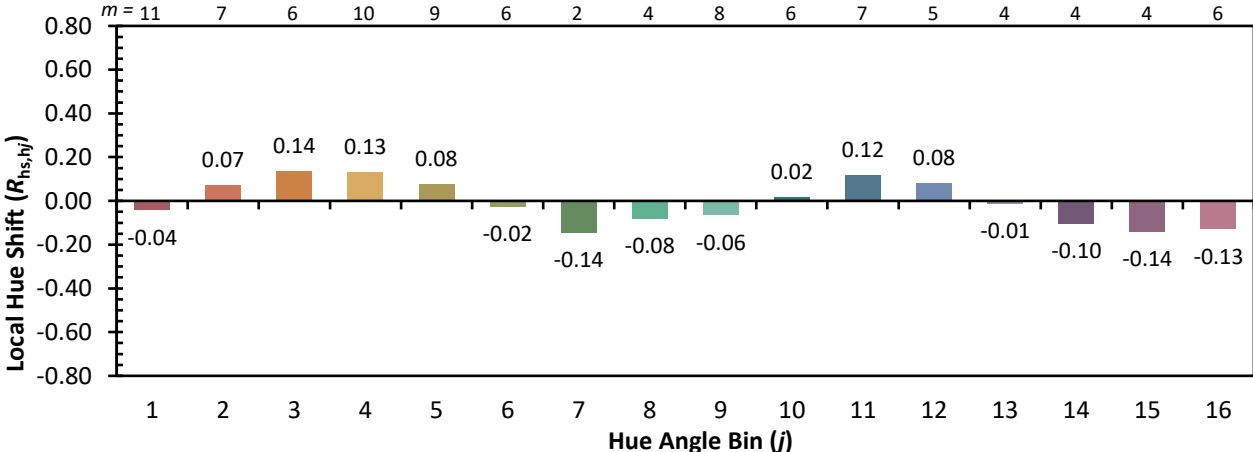
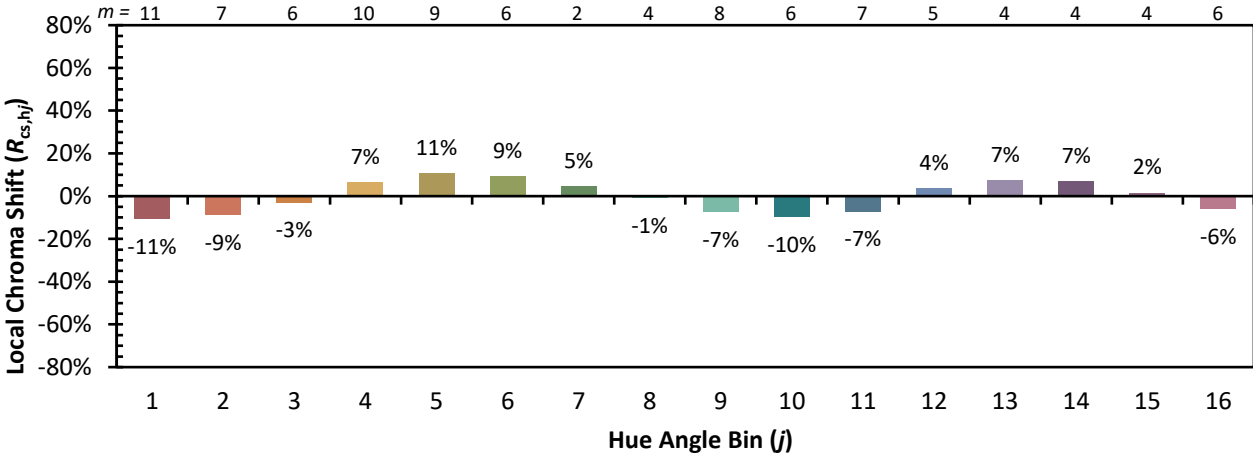


**Individual Sample Fidelity Index ( $R_{f,i}$ )**

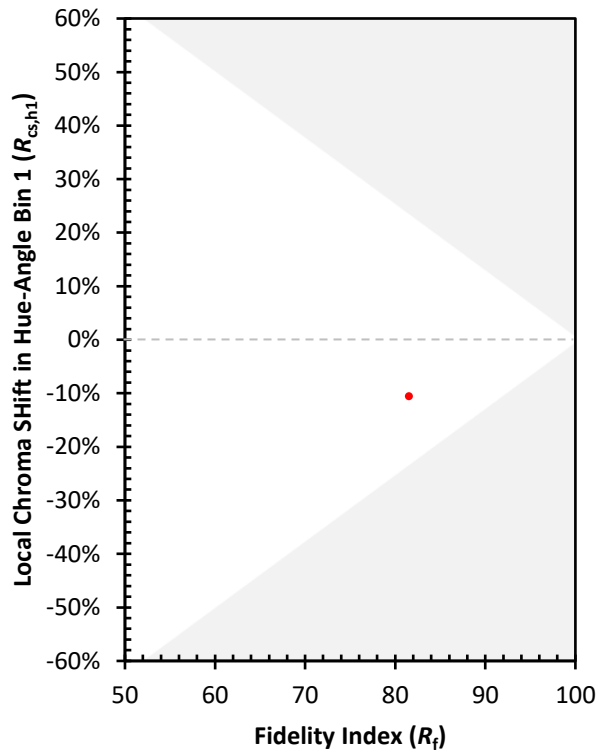
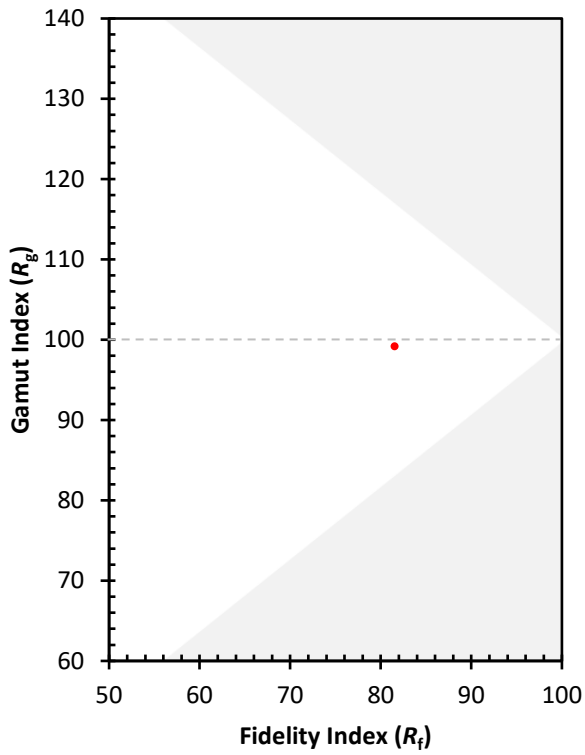
CES01 = 86	CES26 = 74	CES51 = 89	CES76 = 70
CES02 = 63	CES27 = 88	CES52 = 92	CES77 = 86
CES03 = 31	CES28 = 89	CES53 = 81	CES78 = 72
CES04 = 70	CES29 = 67	CES54 = 87	CES79 = 90
CES05 = 50	CES30 = 68	CES55 = 85	CES80 = 88
CES06 = 51	CES31 = 71	CES56 = 78	CES81 = 78
CES07 = 42	CES32 = 70	CES57 = 76	CES82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