

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: INVUE

Report Number: P869237

Luminaire Tested: **EMM2-HSN-SA1A-AMB-U-T4W**

Issue Date: 08/22/2024



**Test Information**

Test Method: LM-79-08  
Report Number: P869237  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 08/22/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: EMM2-HSN-SA1A-AMB-U-T4W  
Description: EPIC MODERN SHORT HOUSING DISCRETE LED ARRAYS 15W OCRI 1540K  
FIXTURE w/ TYPE IV WIDE DISTRIBUTION OPTIC  
Light Source: (10) 1540K CCT, 0 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

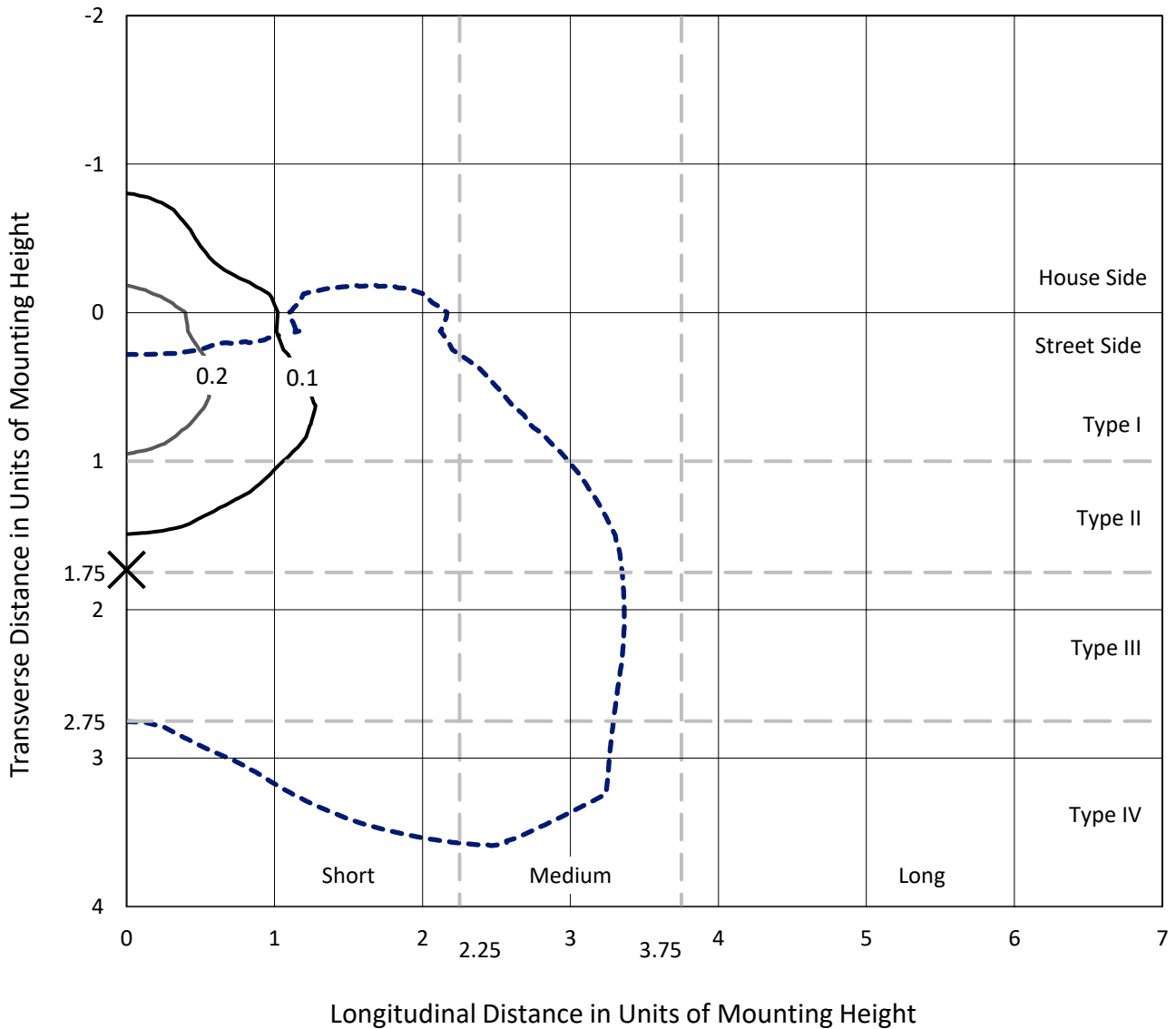
Lumens per Lamp: N/A  
Luminaire Lumens: 589.7 lumens  
Efficiency: N/A  
Efficacy: 36.9 lumens/watt  
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B0 - U0 - G1

Input Watts (W): 16  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: 0.98  
Total Harmonic Distortion (THDi): 9.98%  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT

REPORT NUMBER: P869237  
 CATALOG NUMBER: EMM2-HSN-SA1A-AMB-U-T4W

### Iso-Footcandle Lines of Horizontal Illumination

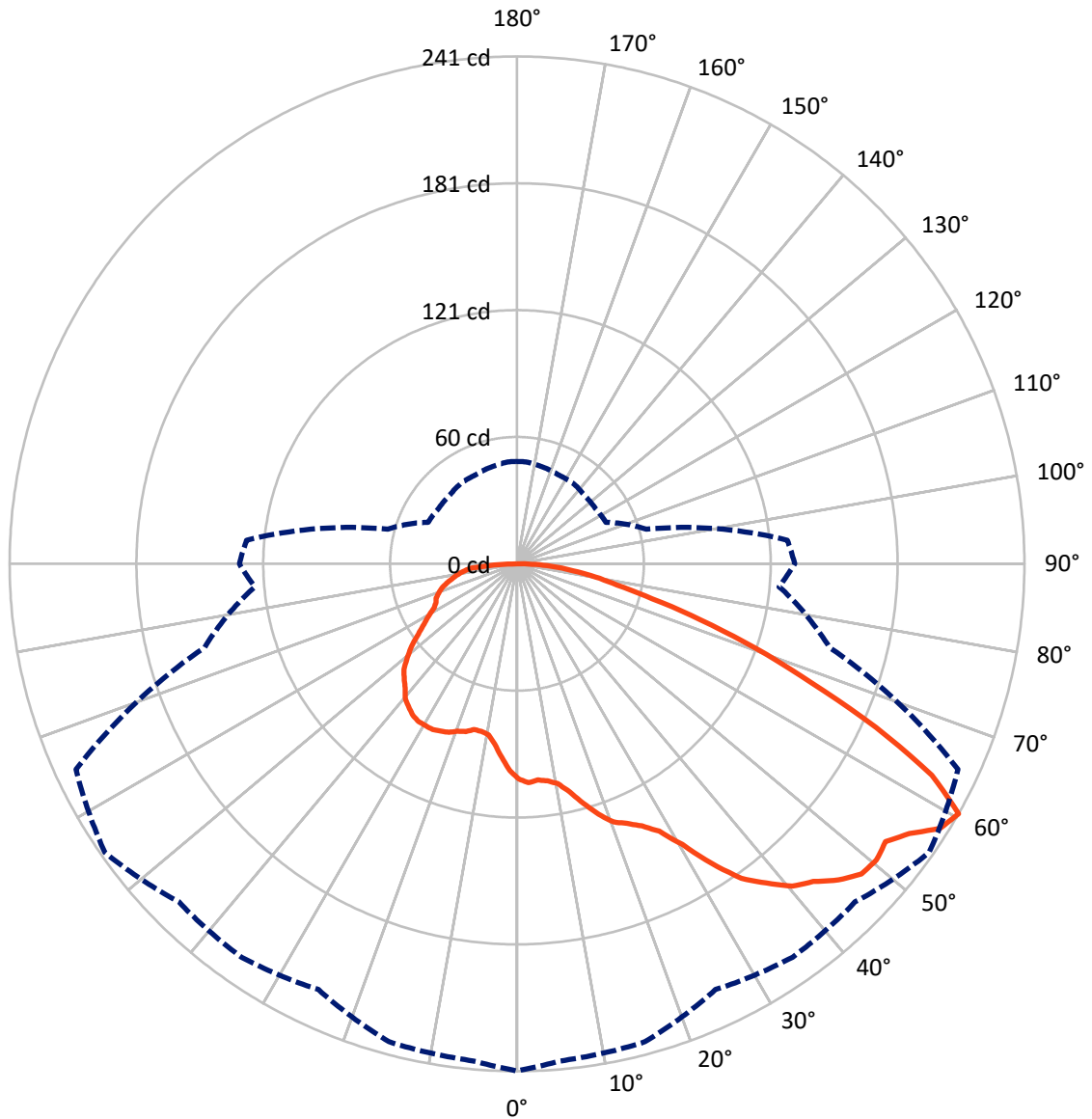
✕ Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 0.3 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 0-Deg Lateral      - - - Horizontal Cone Through 60-Deg Vertical

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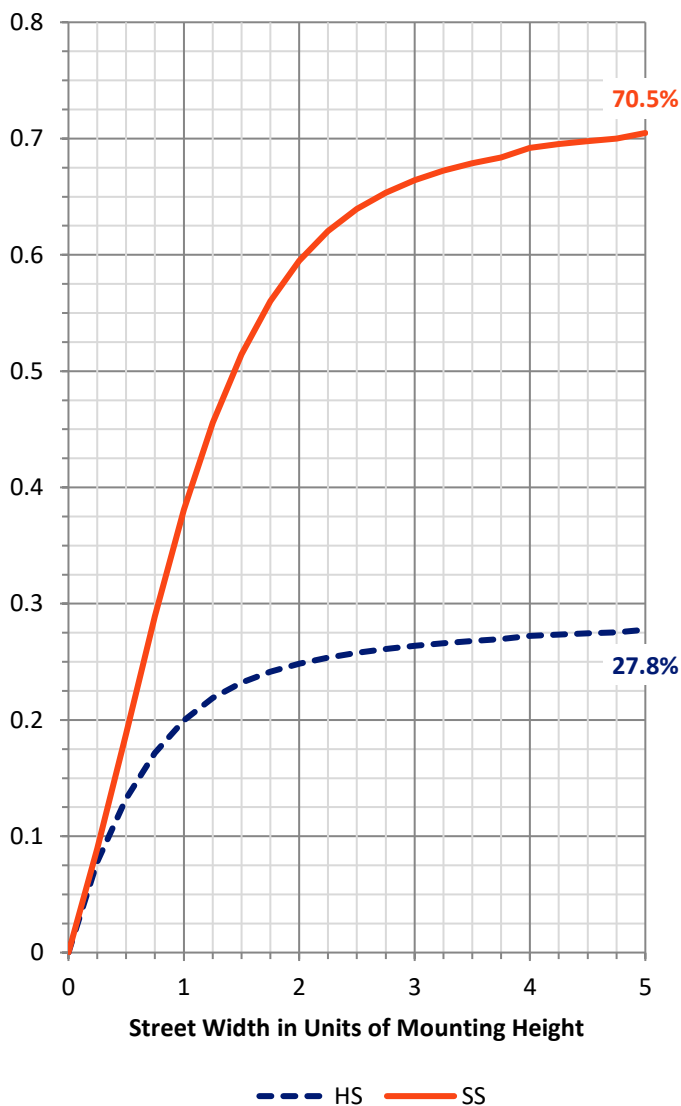
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	167.9	0.0	167.9
	% Fixture	28.5	0.0	28.5
<b>Street Side</b>	Lumens	421.8	0.0	421.8
	% Fixture	71.5	0.0	71.5
<b>Total</b>	Lumens	589.7	0.0	589.7
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	9.4	1.6
10°-20°	27.6	4.7
20°-30°	48.0	8.1
30°-40°	72.3	12.3
40°-50°	97.2	16.5
50°-60°	119.4	20.2
60°-70°	119.6	20.3
70°-80°	74.4	12.6
80°-90°	21.8	3.7
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°	589.7	100.0
0°-180°	589.7	100.0



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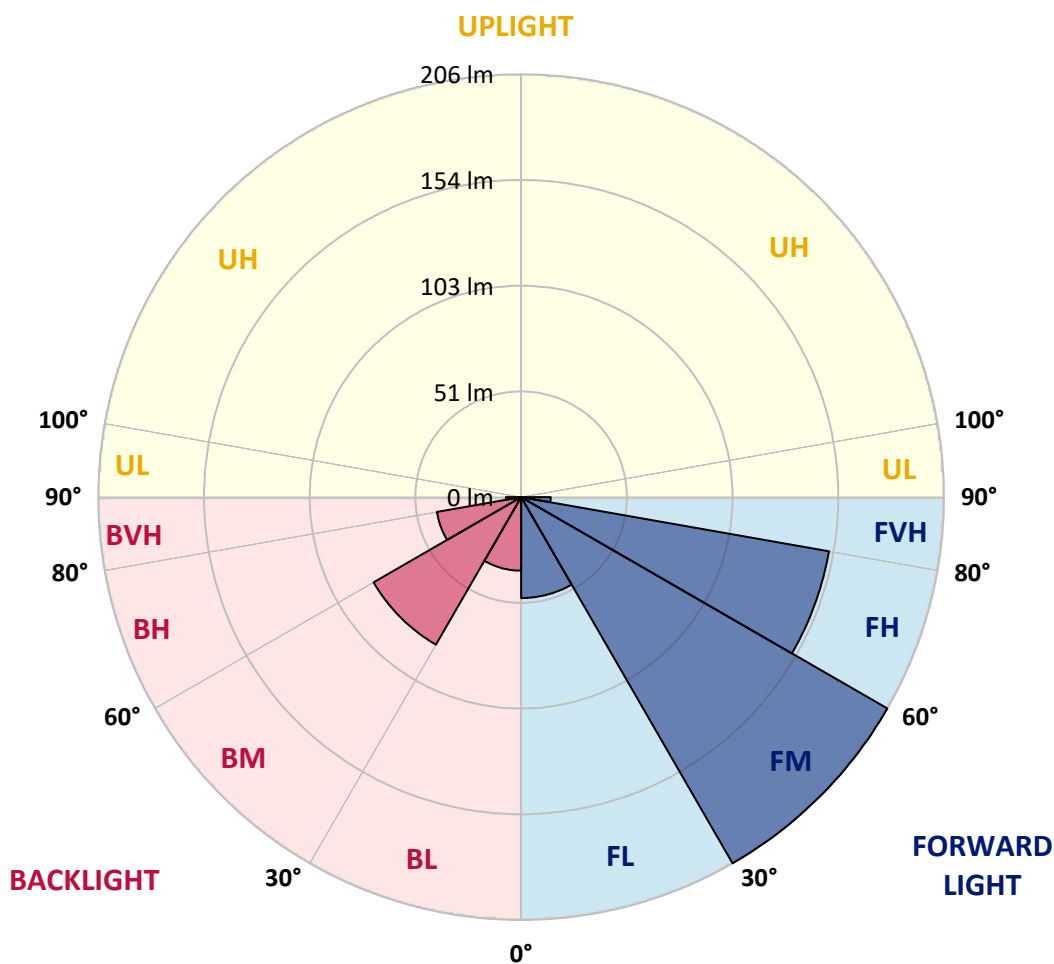
CATALOG NUMBER: EMM2-HSN-SA1A-AMB-U-T4W

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	49.2	8.3			
FM (30°-60°)	206.0	34.9			
FH (60°-80°)	152.3	25.8			G0/660
FVH (80°-90°)	14.4	2.4			G1/100
BL (0°-30°)	35.8	6.1	B0/110		
BM (30°-60°)	83.0	14.1	B0/220		
BH (60°-80°)	41.7	7.1	B0/110		G0/110
BVH (80°-90°)	7.4	1.3			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 IV Short





REPORT NUMBER: P869237

CATALOG NUMBER: EMM2-HSN-SA1A-AMB-U-T4W

**CANDELA DISTRIBUTION (FULL):**

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	102.2	102.2	102.2	102.2	102.2	102.2	102.2	102.2	102.2	102.2	102.2
2.5°	104.1	104.1	104.1	104.1	104.1	104.1	103.1	103.1	103.1	102.2	102.2
5°	103.1	103.1	103.1	104.1	104.1	104.1	104.1	103.1	103.1	102.2	102.2
7.5°	104.1	104.1	104.1	104.1	104.1	103.1	103.1	103.1	102.2	102.2	101.2
10°	106.1	106.1	106.1	106.1	105.1	104.1	103.1	103.1	102.2	101.2	101.2
12.5°	111.1	111.1	111.1	110.1	109.1	107.1	105.1	103.1	102.2	101.2	100.2
15°	118.0	118.0	118.0	117.0	114.1	111.1	107.1	104.1	102.2	101.2	100.2
17.5°	125.0	125.0	125.0	124.0	121.0	117.0	111.1	106.1	102.2	101.2	100.2
20°	130.9	130.9	130.9	129.9	127.9	123.0	117.0	110.1	104.1	101.2	100.2
22.5°	133.9	133.9	133.9	134.9	131.9	128.9	123.0	114.1	106.1	102.2	101.2
25°	137.9	137.9	137.9	137.9	135.9	133.9	128.9	119.0	109.1	104.1	102.2
27.5°	143.8	143.8	143.8	142.8	139.8	137.9	133.9	126.0	114.1	105.1	103.1
30°	154.7	153.7	154.7	151.7	146.8	142.8	139.8	132.9	119.0	107.1	104.1
32.5°	169.6	169.6	169.6	166.6	156.7	149.8	146.8	141.8	126.0	111.1	106.1
35°	183.5	184.5	184.5	180.5	169.6	159.7	154.7	150.7	133.9	114.1	107.1
37.5°	192.4	192.4	192.4	190.4	179.5	171.6	163.6	157.7	138.8	115.0	107.1
40°	201.3	201.3	200.3	197.4	185.5	179.5	170.6	165.6	146.8	118.0	108.1
42.5°	206.3	206.3	204.3	201.3	190.4	186.4	179.5	172.6	155.7	122.0	110.1
45°	214.2	214.2	210.3	206.3	196.4	194.4	188.4	182.5	164.6	126.9	113.1
47.5°	220.2	219.2	214.2	211.2	206.3	200.3	197.4	192.4	174.5	131.9	115.0
50°	221.2	220.2	218.2	216.2	211.2	207.3	204.3	202.3	185.5	136.9	118.0
52.5°	219.2	219.2	220.2	221.2	214.2	214.2	210.3	213.2	197.4	142.8	121.0
55°	226.1	226.1	227.1	227.1	218.2	221.2	218.2	223.1	209.3	147.8	124.0
57.5°	237.0	236.0	235.0	234.1	224.1	228.1	224.1	232.1	222.2	151.7	126.0
60°	241.0	240.0	237.0	235.0	223.1	228.1	227.1	239.0	231.1	153.7	125.0
62.5°	221.2	222.2	220.2	224.1	214.2	221.2	223.1	235.0	235.0	153.7	123.0
65°	187.4	190.4	193.4	201.3	206.3	214.2	219.2	226.1	227.1	148.8	118.0
67.5°	150.7	150.7	154.7	173.6	196.4	209.3	214.2	218.2	211.2	138.8	107.1
70°	120.0	119.0	123.0	146.8	177.5	196.4	201.3	204.3	183.5	121.0	90.2
72.5°	91.2	90.2	95.2	119.0	155.7	180.5	178.5	174.5	149.8	101.2	74.4
75°	66.4	66.4	69.4	92.2	123.0	152.7	151.7	138.8	116.0	79.3	58.5
77.5°	48.6	48.6	51.6	67.4	89.3	114.1	122.0	100.2	83.3	59.5	43.6
80°	37.7	37.7	38.7	49.6	63.5	78.3	89.3	68.4	53.6	41.7	32.7
82.5°	26.8	27.8	28.8	37.7	44.6	51.6	57.5	43.6	33.7	28.8	23.8
85°	17.9	17.9	18.8	26.8	31.7	32.7	36.7	27.8	19.8	19.8	12.9
87.5°	8.9	9.9	9.9	15.9	18.8	17.9	18.8	14.9	8.9	8.9	5.0
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: P869237  
 CATALOG NUMBER: EMM2-HSN-SA1A-AMB-U-T4W

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	102.2	102.2	102.2	102.2	102.2	102.2	102.2	102.2	102.2	102.2	102.2
2.5°	102.2	102.2	101.2	100.2	100.2	99.2	99.2	99.2	98.2	98.2	98.2
5°	101.2	101.2	99.2	98.2	97.2	95.2	94.2	92.2	92.2	92.2	92.2
7.5°	101.2	100.2	98.2	95.2	93.2	90.2	88.3	87.3	86.3	86.3	86.3
10°	100.2	99.2	96.2	92.2	89.3	86.3	84.3	83.3	82.3	82.3	82.3
12.5°	99.2	98.2	94.2	90.2	86.3	83.3	81.3	81.3	81.3	81.3	81.3
15°	99.2	98.2	93.2	87.3	83.3	81.3	80.3	80.3	81.3	81.3	81.3
17.5°	99.2	97.2	91.2	85.3	81.3	79.3	79.3	80.3	81.3	82.3	83.3
20°	99.2	97.2	90.2	82.3	79.3	78.3	79.3	81.3	82.3	84.3	84.3
22.5°	100.2	97.2	88.3	80.3	77.4	77.4	80.3	82.3	84.3	85.3	86.3
25°	101.2	98.2	87.3	78.3	75.4	76.4	79.3	82.3	84.3	87.3	87.3
27.5°	102.2	99.2	87.3	77.4	73.4	75.4	79.3	82.3	85.3	87.3	88.3
30°	103.1	100.2	87.3	75.4	72.4	73.4	77.4	82.3	84.3	87.3	88.3
32.5°	105.1	101.2	86.3	73.4	70.4	71.4	76.4	81.3	84.3	87.3	88.3
35°	105.1	102.2	86.3	72.4	67.4	69.4	74.4	80.3	83.3	86.3	87.3
37.5°	107.1	105.1	87.3	70.4	65.5	66.4	71.4	79.3	82.3	84.3	85.3
40°	109.1	108.1	87.3	68.4	63.5	64.5	69.4	77.4	80.3	82.3	83.3
42.5°	113.1	112.1	88.3	66.4	60.5	61.5	67.4	75.4	78.3	79.3	79.3
45°	116.0	116.0	88.3	64.5	58.5	60.5	64.5	71.4	75.4	76.4	76.4
47.5°	119.0	119.0	86.3	61.5	56.5	58.5	62.5	68.4	71.4	72.4	73.4
50°	123.0	123.0	84.3	58.5	54.5	56.5	59.5	63.5	66.4	67.4	68.4
52.5°	126.9	126.9	80.3	55.5	52.6	54.5	56.5	59.5	61.5	62.5	63.5
55°	130.9	129.9	76.4	52.6	50.6	52.6	52.6	54.5	56.5	57.5	57.5
57.5°	131.9	130.9	69.4	49.6	48.6	49.6	49.6	50.6	51.6	52.6	52.6
60°	131.9	128.9	63.5	46.6	45.6	45.6	46.6	46.6	47.6	48.6	48.6
62.5°	128.9	123.0	57.5	43.6	42.6	42.6	43.6	43.6	44.6	44.6	44.6
65°	121.0	109.1	51.6	41.7	39.7	39.7	40.7	40.7	41.7	42.6	42.6
67.5°	107.1	91.2	46.6	37.7	36.7	36.7	37.7	38.7	39.7	41.7	41.7
70°	89.3	71.4	40.7	34.7	33.7	33.7	35.7	35.7	37.7	39.7	39.7
72.5°	70.4	55.5	34.7	30.7	30.7	30.7	32.7	33.7	35.7	37.7	37.7
75°	54.5	42.6	30.7	26.8	27.8	27.8	30.7	31.7	33.7	36.7	34.7
77.5°	41.7	33.7	25.8	22.8	23.8	25.8	27.8	29.8	30.7	32.7	31.7
80°	29.8	25.8	20.8	18.8	19.8	21.8	24.8	26.8	27.8	28.8	28.8
82.5°	21.8	18.8	15.9	14.9	15.9	18.8	20.8	23.8	23.8	25.8	25.8
85°	11.9	11.9	10.9	9.9	11.9	13.9	14.9	18.8	19.8	21.8	21.8
87.5°	4.0	4.0	4.0	5.0	6.0	6.9	7.9	10.9	12.9	12.9	10.9
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

Streetworks

Report Number: SP1-2407-157-1

Test Date: 08/06/2024

Luminaire Tested: MEM2-HTN-SA-45-AMB-U-5WQ-2

Data in this report applies to families of products including MEM2-HTN-SA-45-AMB-U-5WQ-2

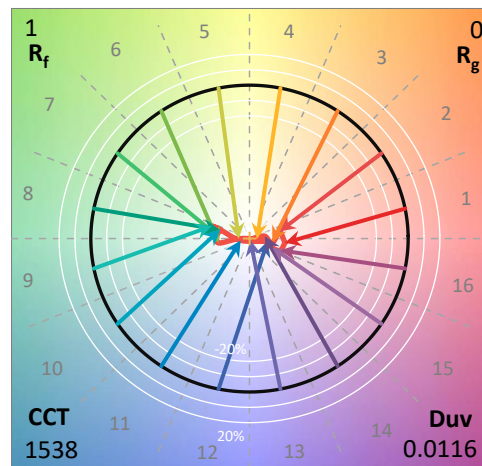
**Test Information**

Test Method: LM-79-2019  
 Report Number: SP1-2407-157-1  
 Test Lab: COOPER LIGHTING SOLUTIONS  
 Photometer: SP1 - 76IN SPHERE  
 Measurement Geometry: 4π  
 Issue Date: 08/20/2024  
 Manufacturer: COOPER LIGHTING SOLUTIONS  
 Product Line: Streetworks  
 Catalog Number: **MEM2-HTN-SA-45-AMB-U-5WQ-2**  
 Description: Epic Modern Light Square 45W 5WQ Optic and Flare Trim AMBER LED

**Spectral Parameters**

CCT (K): 1538  
 CIE u': 0.3530  
 CIE v': 0.5469  
 Duv: 0.0116  
 CIE x: 0.5918  
 CIE y: 0.4076  
 CIE z: 0.0006  
 Peak Wavelength (nm): 597  
 Dominant Wavelength (nm): 592  
 Purity: 99.98881  
 Rf: 1.1  
 Rg: 0

CRI (Ra):	-21.8		
R1:	-34.3	R9:	-386.6
R2:	52.3	R10:	28.9
R3:	17.0	R11:	-95.5
R4:	-68.4	R12:	-10.5
R5:	-40.8	R13:	-15.5
R6:	41.5	R14:	45.9
R7:	-7.2	R15:	-67.7
R8:	-134.5		



**Test Conditions**

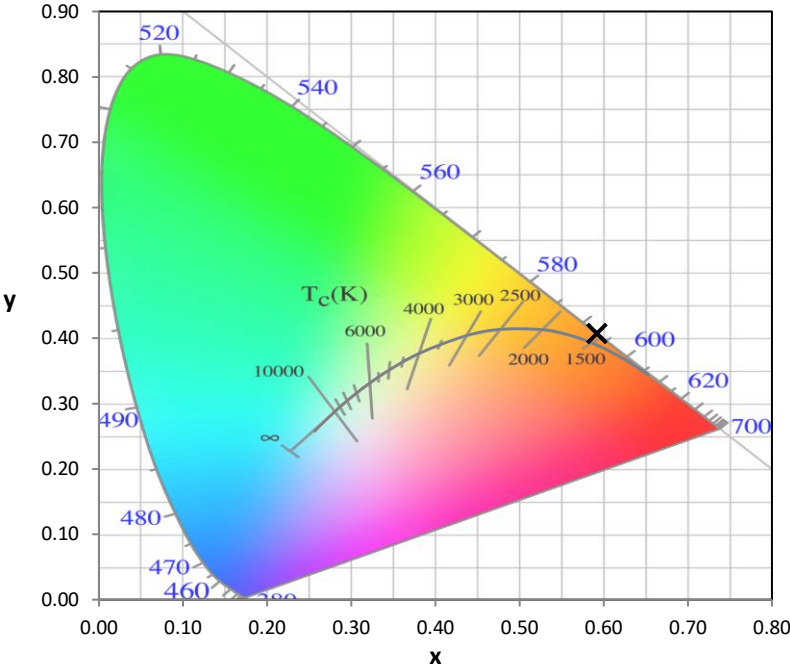
Stabilization Time: 20M  
 Operation Time: 1H 20M  
 Sphere Temperature (°C): 24.2

REPORT NUMBER: SP1-2407-157-1

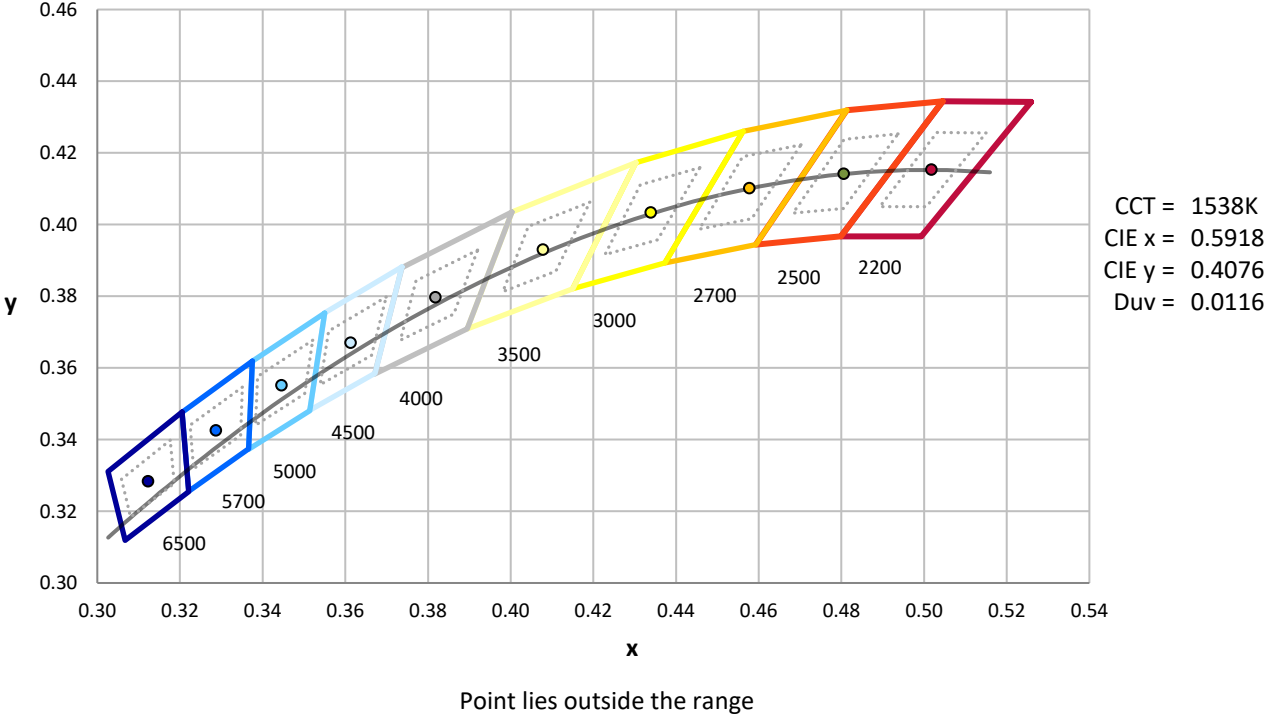
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

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**CIE 1931 Chromaticity Diagram**

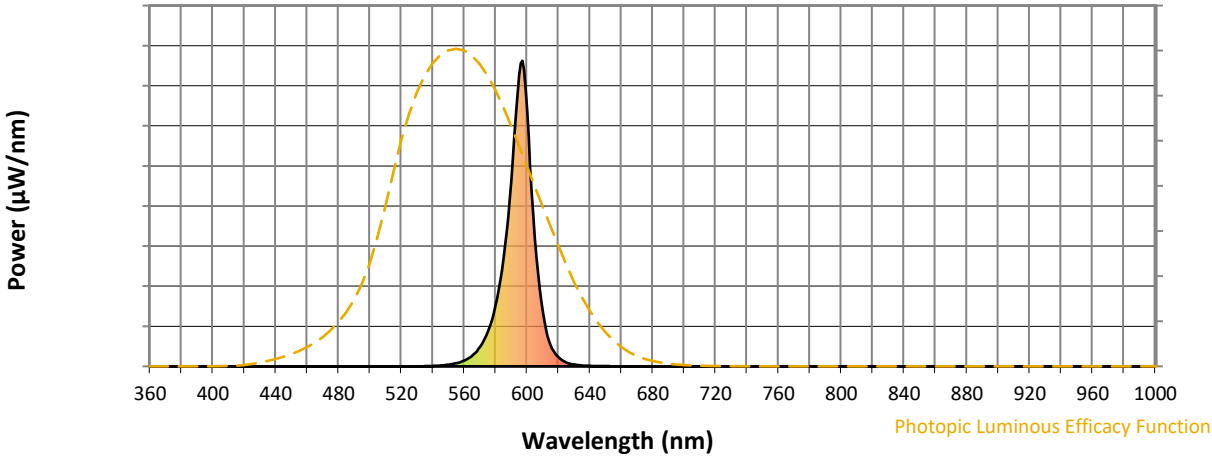


**CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles**



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**Photopic Flux vs. Wavelength**



**Photopic Lumens: NR**

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	0	NR	620	30	NR	750	0	NR	880	0	NR
365	0	NR	495	0	NR	625	13	NR	755	0	NR	885	0	NR
370	0	NR	500	0	NR	630	6	NR	760	0	NR	890	0	NR
375	0	NR	505	0	NR	635	3	NR	765	0	NR	895	0	NR
380	0	NR	510	0	NR	640	2	NR	770	0	NR	900	0	NR
385	0	NR	515	0	NR	645	1	NR	775	0	NR	905	0	NR
390	0	NR	520	0	NR	650	1	NR	780	0	NR	910	0	NR
395	0	NR	525	0	NR	655	0	NR	785	0	NR	915	0	NR
400	0	NR	530	0	NR	660	0	NR	790	0	NR	920	0	NR
405	0	NR	535	1	NR	665	0	NR	795	0	NR	925	0	NR
410	0	NR	540	1	NR	670	0	NR	800	0	NR	930	0	NR
415	0	NR	545	3	NR	675	0	NR	805	0	NR	935	0	NR
420	0	NR	550	5	NR	680	0	NR	810	0	NR	940	0	NR
425	0	NR	555	10	NR	685	0	NR	815	0	NR	945	0	NR
430	0	NR	560	19	NR	690	0	NR	820	0	NR	950	0	NR
435	0	NR	565	34	NR	695	0	NR	825	0	NR	955	0	NR
440	0	NR	570	63	NR	700	0	NR	830	0	NR	960	0	NR
445	0	NR	575	113	NR	705	0	NR	835	0	NR	965	0	NR
450	0	NR	580	199	NR	710	0	NR	840	0	NR	970	0	NR
455	0	NR	585	352	NR	715	0	NR	845	0	NR	975	0	NR
460	0	NR	590	614	NR	720	0	NR	850	0	NR	980	0	NR
465	0	NR	595	954	NR	725	0	NR	855	0	NR	985	0	NR
470	0	NR	600	837	NR	730	0	NR	860	0	NR	990	0	NR
475	0	NR	605	417	NR	735	0	NR	865	0	NR	995	0	NR
480	0	NR	610	179	NR	740	0	NR	870	0	NR	1000	0	NR
485	0	NR	615	69	NR	745	0	NR	875	0	NR			

REPORT NUMBER: SP1-2407-157-1

**Scotopic Flux vs. Wavelength**



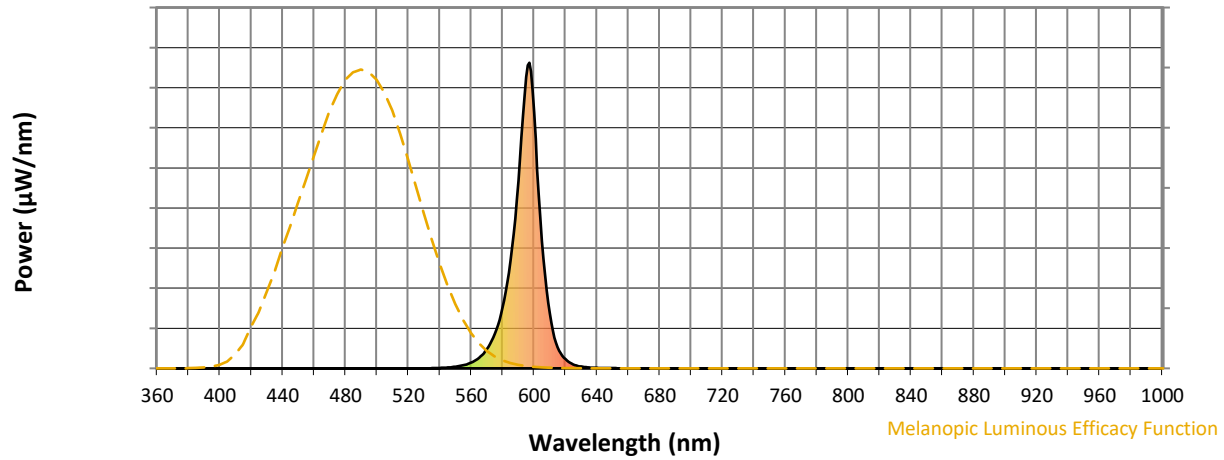
**Scotopic Lumens: NR**

**S/P: 0.22**

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	0	NR	620	30	NR	750	0	NR	880	0	NR
365	0	NR	495	0	NR	625	13	NR	755	0	NR	885	0	NR
370	0	NR	500	0	NR	630	6	NR	760	0	NR	890	0	NR
375	0	NR	505	0	NR	635	3	NR	765	0	NR	895	0	NR
380	0	NR	510	0	NR	640	2	NR	770	0	NR	900	0	NR
385	0	NR	515	0	NR	645	1	NR	775	0	NR	905	0	NR
390	0	NR	520	0	NR	650	1	NR	780	0	NR	910	0	NR
395	0	NR	525	0	NR	655	0	NR	785	0	NR	915	0	NR
400	0	NR	530	0	NR	660	0	NR	790	0	NR	920	0	NR
405	0	NR	535	1	NR	665	0	NR	795	0	NR	925	0	NR
410	0	NR	540	1	NR	670	0	NR	800	0	NR	930	0	NR
415	0	NR	545	3	NR	675	0	NR	805	0	NR	935	0	NR
420	0	NR	550	5	NR	680	0	NR	810	0	NR	940	0	NR
425	0	NR	555	10	NR	685	0	NR	815	0	NR	945	0	NR
430	0	NR	560	19	NR	690	0	NR	820	0	NR	950	0	NR
435	0	NR	565	34	NR	695	0	NR	825	0	NR	955	0	NR
440	0	NR	570	63	NR	700	0	NR	830	0	NR	960	0	NR
445	0	NR	575	113	NR	705	0	NR	835	0	NR	965	0	NR
450	0	NR	580	199	NR	710	0	NR	840	0	NR	970	0	NR
455	0	NR	585	352	NR	715	0	NR	845	0	NR	975	0	NR
460	0	NR	590	614	NR	720	0	NR	850	0	NR	980	0	NR
465	0	NR	595	954	NR	725	0	NR	855	0	NR	985	0	NR
470	0	NR	600	837	NR	730	0	NR	860	0	NR	990	0	NR
475	0	NR	605	417	NR	735	0	NR	865	0	NR	995	0	NR
480	0	NR	610	179	NR	740	0	NR	870	0	NR	1000	0	NR
485	0	NR	615	69	NR	745	0	NR	875	0	NR			

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**Melanopic Flux vs. Wavelength**



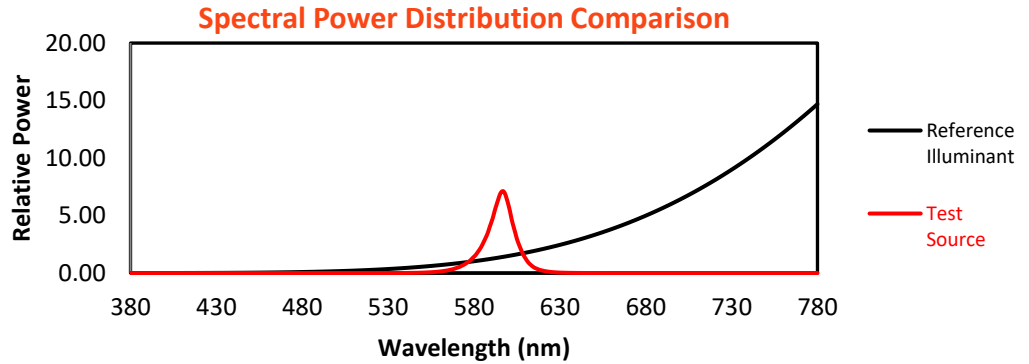
**Melanopic Lumens: NR**

**M/P: 0.12**

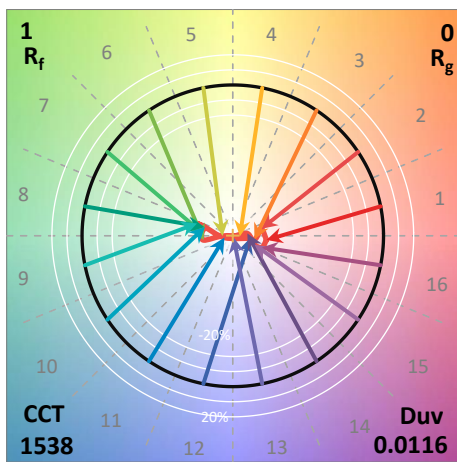
λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)
360	0	NR	490	0	NR	620	30	NR	750	0	NR	880	0	NR
365	0	NR	495	0	NR	625	13	NR	755	0	NR	885	0	NR
370	0	NR	500	0	NR	630	6	NR	760	0	NR	890	0	NR
375	0	NR	505	0	NR	635	3	NR	765	0	NR	895	0	NR
380	0	NR	510	0	NR	640	2	NR	770	0	NR	900	0	NR
385	0	NR	515	0	NR	645	1	NR	775	0	NR	905	0	NR
390	0	NR	520	0	NR	650	1	NR	780	0	NR	910	0	NR
395	0	NR	525	0	NR	655	0	NR	785	0	NR	915	0	NR
400	0	NR	530	0	NR	660	0	NR	790	0	NR	920	0	NR
405	0	NR	535	1	NR	665	0	NR	795	0	NR	925	0	NR
410	0	NR	540	1	NR	670	0	NR	800	0	NR	930	0	NR
415	0	NR	545	3	NR	675	0	NR	805	0	NR	935	0	NR
420	0	NR	550	5	NR	680	0	NR	810	0	NR	940	0	NR
425	0	NR	555	10	NR	685	0	NR	815	0	NR	945	0	NR
430	0	NR	560	19	NR	690	0	NR	820	0	NR	950	0	NR
435	0	NR	565	34	NR	695	0	NR	825	0	NR	955	0	NR
440	0	NR	570	63	NR	700	0	NR	830	0	NR	960	0	NR
445	0	NR	575	113	NR	705	0	NR	835	0	NR	965	0	NR
450	0	NR	580	199	NR	710	0	NR	840	0	NR	970	0	NR
455	0	NR	585	352	NR	715	0	NR	845	0	NR	975	0	NR
460	0	NR	590	614	NR	720	0	NR	850	0	NR	980	0	NR
465	0	NR	595	954	NR	725	0	NR	855	0	NR	985	0	NR
470	0	NR	600	837	NR	730	0	NR	860	0	NR	990	0	NR
475	0	NR	605	417	NR	735	0	NR	865	0	NR	995	0	NR
480	0	NR	610	179	NR	740	0	NR	870	0	NR	1000	0	NR
485	0	NR	615	69	NR	745	0	NR	875	0	NR			

**Summary**

$R_f = 1.1$   
 $R_g = 0$   
 $CIE R_a = -21.8$   
 $R_g = -386.6$



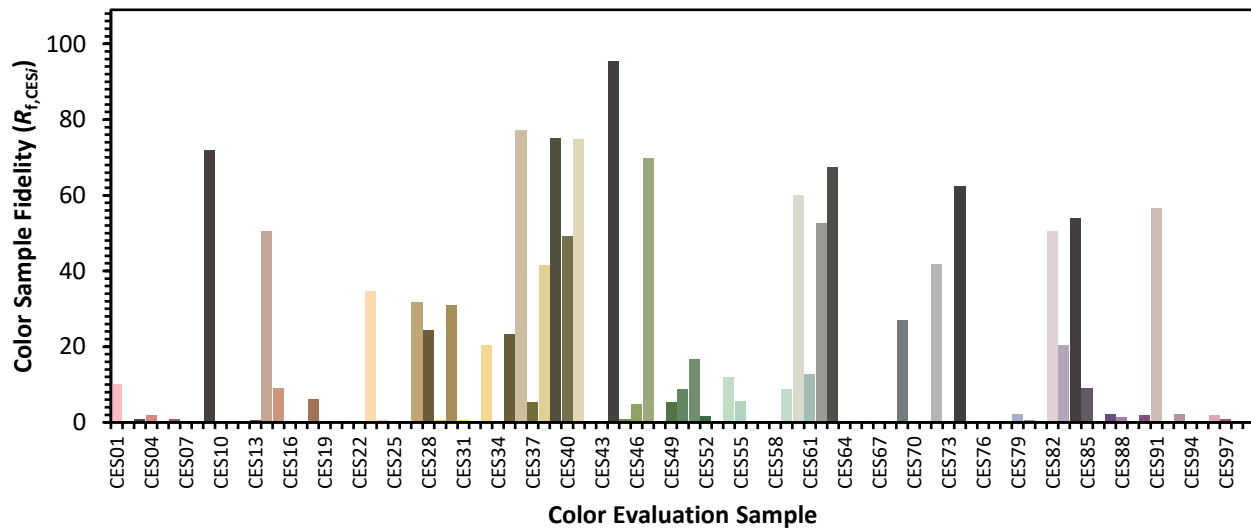
**Color Vector Graphics**



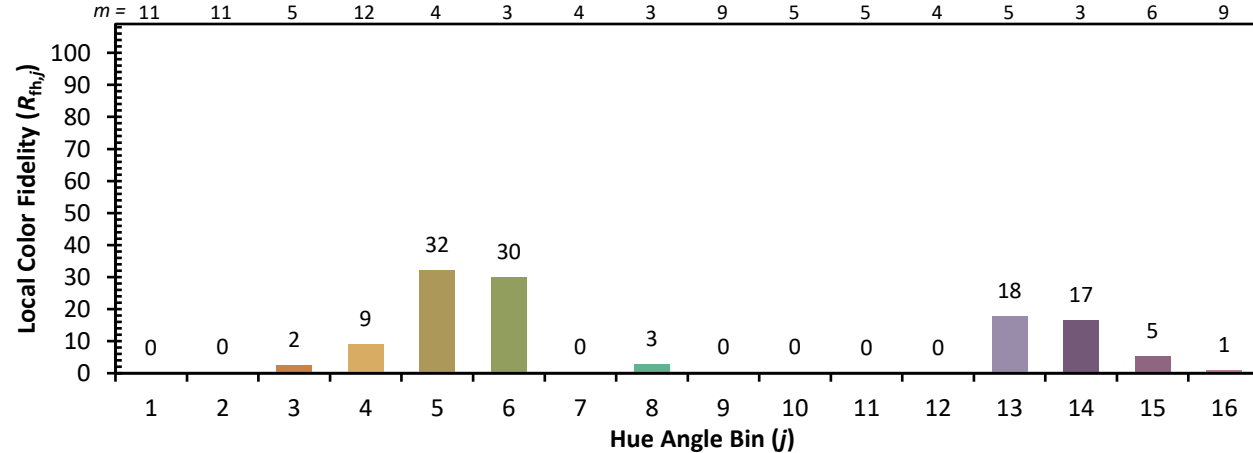
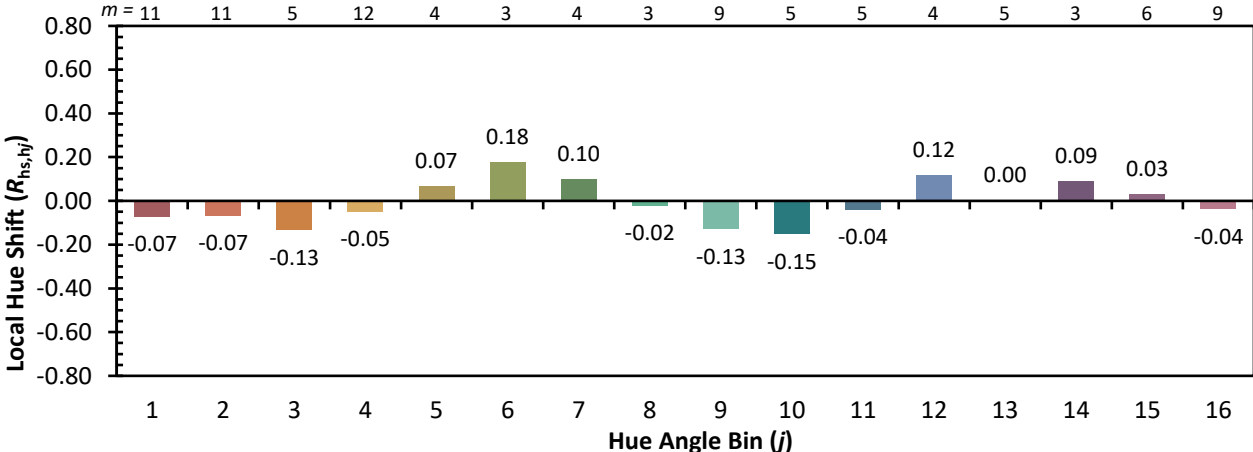
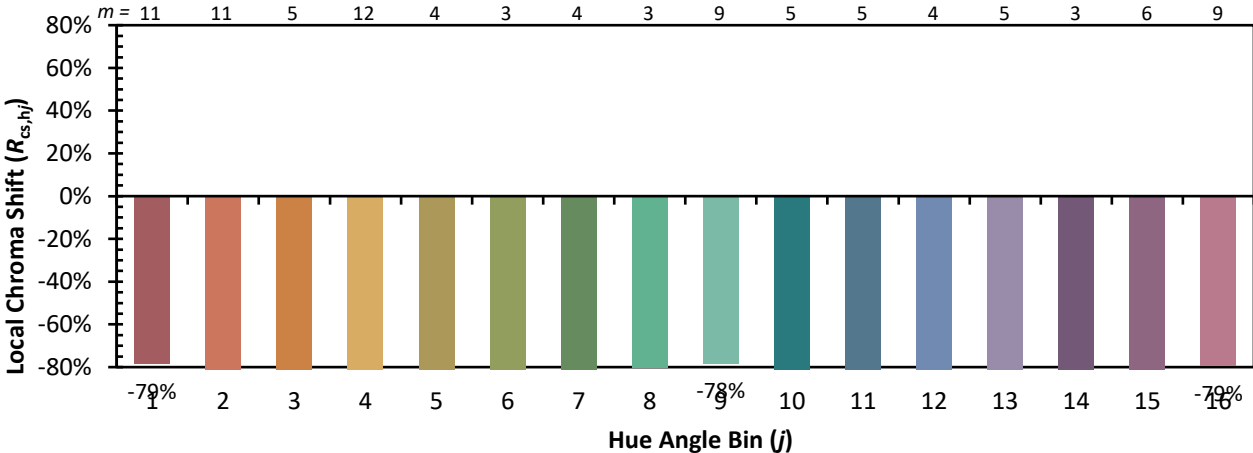


**Individual Sample Fidelity Index ( $R_{f,i}$ )**

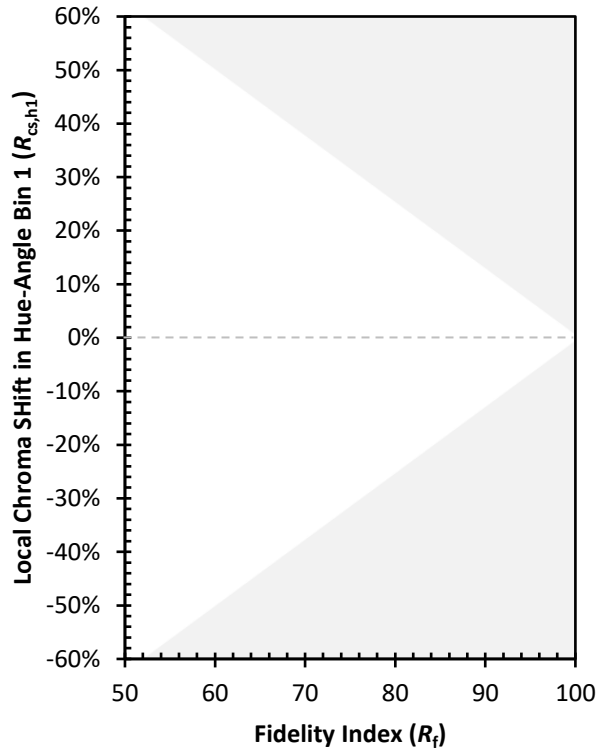
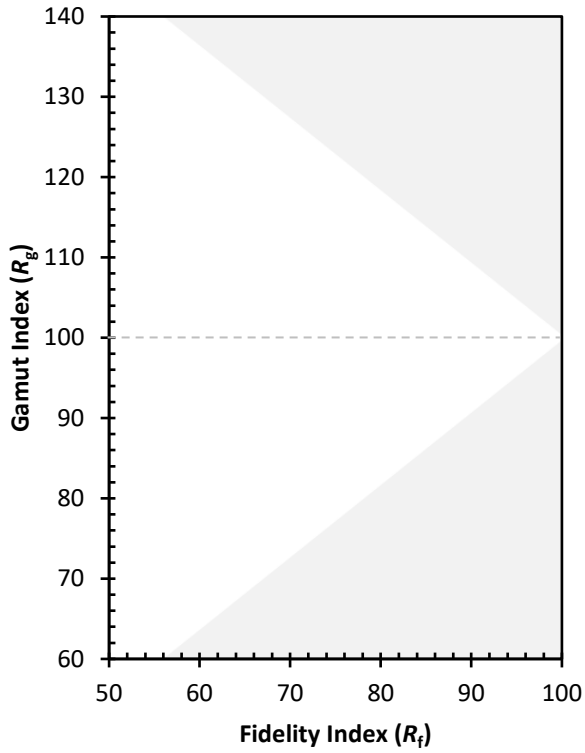
CES01 = 90	CES26 = 0	CES51 = 17	CES76 = 0
CES02 = 70	CES27 = 32	CES52 = 2	CES77 = 0
CES03 = 31	CES28 = 24	CES53 = 0	CES78 = 0
CES04 = 77	CES29 = 1	CES54 = 12	CES79 = 2
CES05 = 52	CES30 = 31	CES55 = 6	CES80 = 1
CES06 = 56	CES31 = 1	CES56 = 0	CES81 = 0
CES07 = 41	CES32 = 0	CES57 = 0	CES82 = 50
CES08 = 38	CES33 = 21	CES58 = 0	CES83 = 21
CES09 = 29	CES34 = 0	CES59 = 9	CES84 = 54
CES10 = 87	CES35 = 23	CES60 = 60	CES85 = 9
CES11 = 70	CES36 = 77	CES61 = 13	CES86 = 0
CES12 = 76	CES37 = 5	CES62 = 53	CES87 = 2
CES13 = 47	CES38 = 41	CES63 = 68	CES88 = 1
CES14 = 77	CES39 = 75	CES64 = 0	CES89 = 0
CES15 = 74	CES40 = 49	CES65 = 0	CES90 = 2
CES16 = 49	CES41 = 75	CES66 = 0	CES91 = 57
CES17 = 56	CES42 = 0	CES67 = 0	CES92 = 0
CES18 = 60	CES43 = 0	CES68 = 0	CES93 = 2
CES19 = 80	CES44 = 95	CES69 = 27	CES94 = 0
CES20 = 71	CES45 = 1	CES70 = 0	CES95 = 0
CES21 = 94	CES46 = 5	CES71 = 0	CES96 = 2
CES22 = 87	CES47 = 70	CES72 = 42	CES97 = 1
CES23 = 94	CES48 = 0	CES73 = 0	CES98 = 0
CES24 = 95	CES49 = 5	CES74 = 62	CES99 = 0
CES25 = 79	CES50 = 9	CES75 = 0	



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)