

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: P869225

Luminaire Tested: **EMM2-HSN-SA1A-AMB-U-T2U**

Issue Date: 08/22/2024



**Test Information**

Test Method: LM-79-08  
Report Number: P869225  
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-T2U  
Description: EPIC MODERN SHORT HOUSING DISCRETE LED ARRAYS 15W OCRI 1540K  
FITXURE w/ TYPE II URBAN DISTRIBUTION OPTIC  
Light Source: (10) 1540K CCT, 0 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

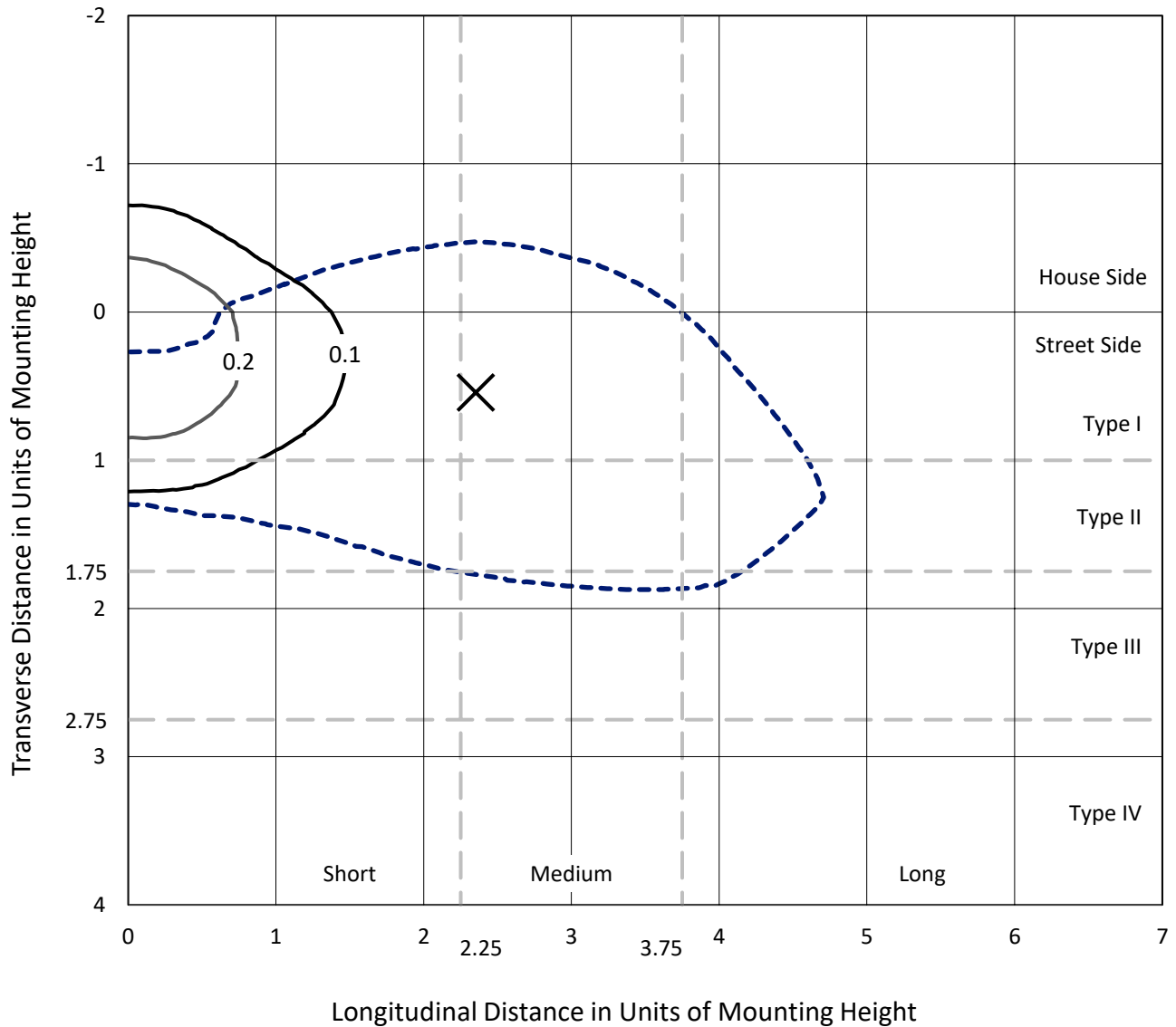
Lumens per Lamp: N/A  
Luminaire Lumens: 614.5 lumens  
Efficiency: N/A  
Efficacy: 38.4 lumens/watt  
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')  
IES Classification: Type III - Medium  
BUG Rating: B0 - U0 - G1

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

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 CATALOG NUMBER: EMM2-HSN-SA1A-AMB-U-T2U

### Iso-Footcandle Lines of Horizontal Illumination

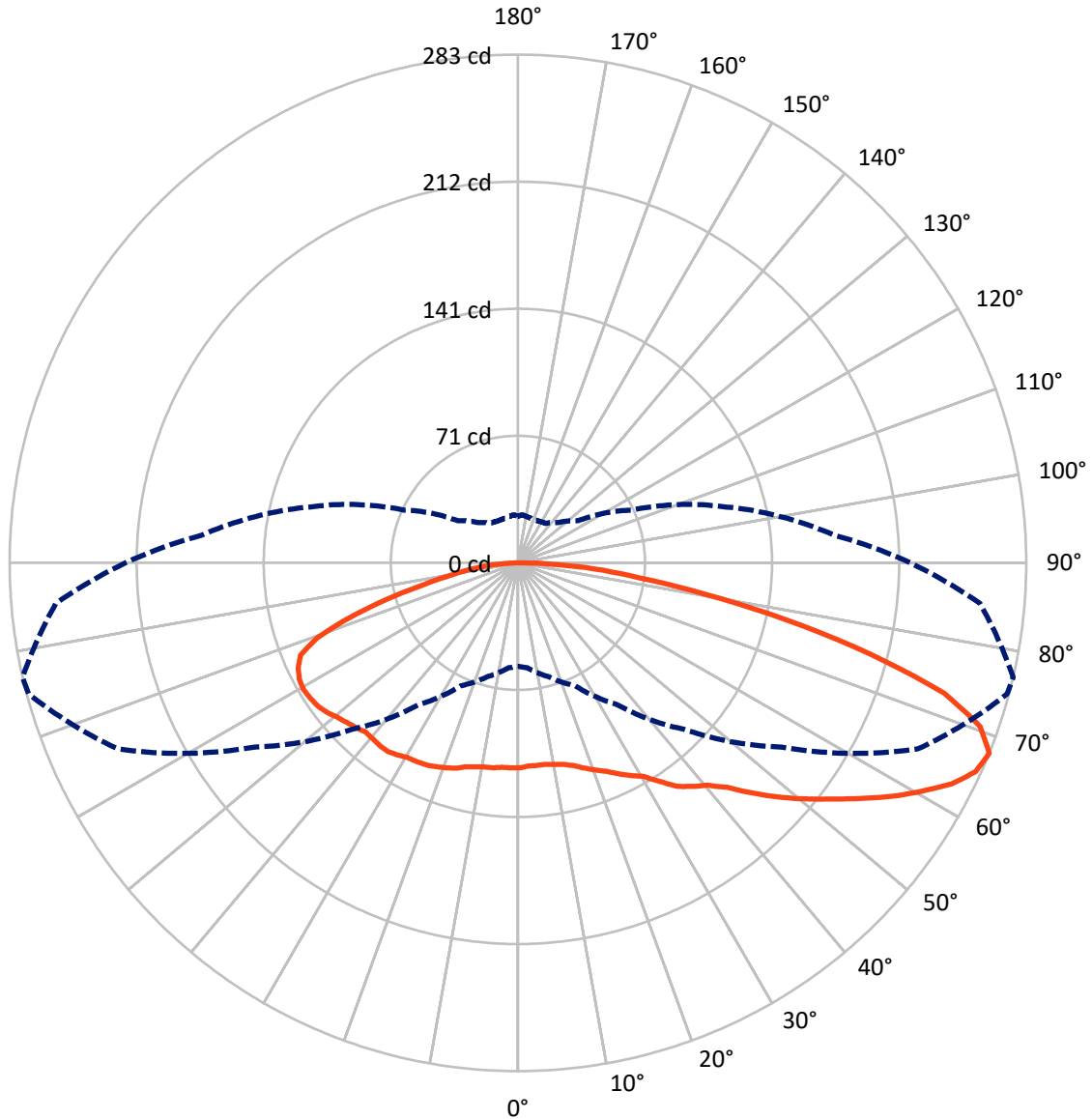
× Max cd  
 - - - 1/2 Max cd



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

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### Luminous Intensity Polar Plot



— Vertical Plane Through 77-Deg Lateral      - - - Horizontal Cone Through 67.5-Deg Vertical

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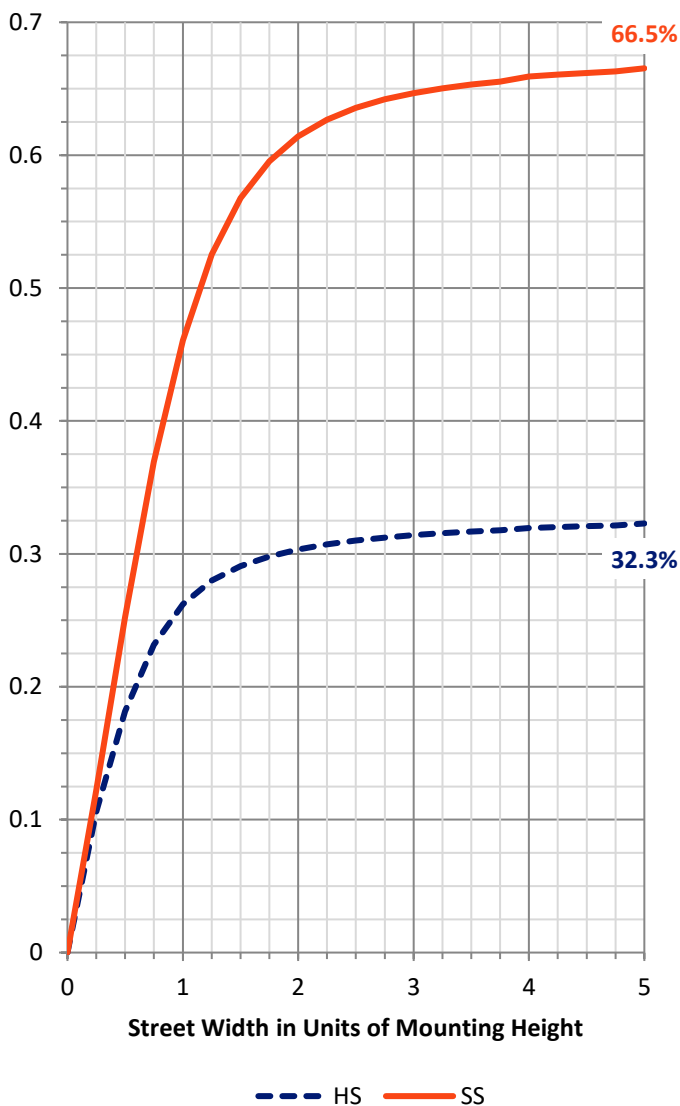
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	202.2	0.0	202.2
	% Fixture	32.9	0.0	32.9
<b>Street Side</b>	Lumens	412.3	0.0	412.3
	% Fixture	67.1	0.0	67.1
<b>Total</b>	Lumens	614.5	0.0	614.5
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	10.8	1.8
10°-20°	33.5	5.5
20°-30°	59.8	9.7
30°-40°	84.6	13.8
40°-50°	105.6	17.2
50°-60°	116.2	18.9
60°-70°	112.1	18.2
70°-80°	71.6	11.6
80°-90°	20.3	3.3
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°	614.5	100.0
0°-180°	614.5	100.0

**Coefficient of Utilization**



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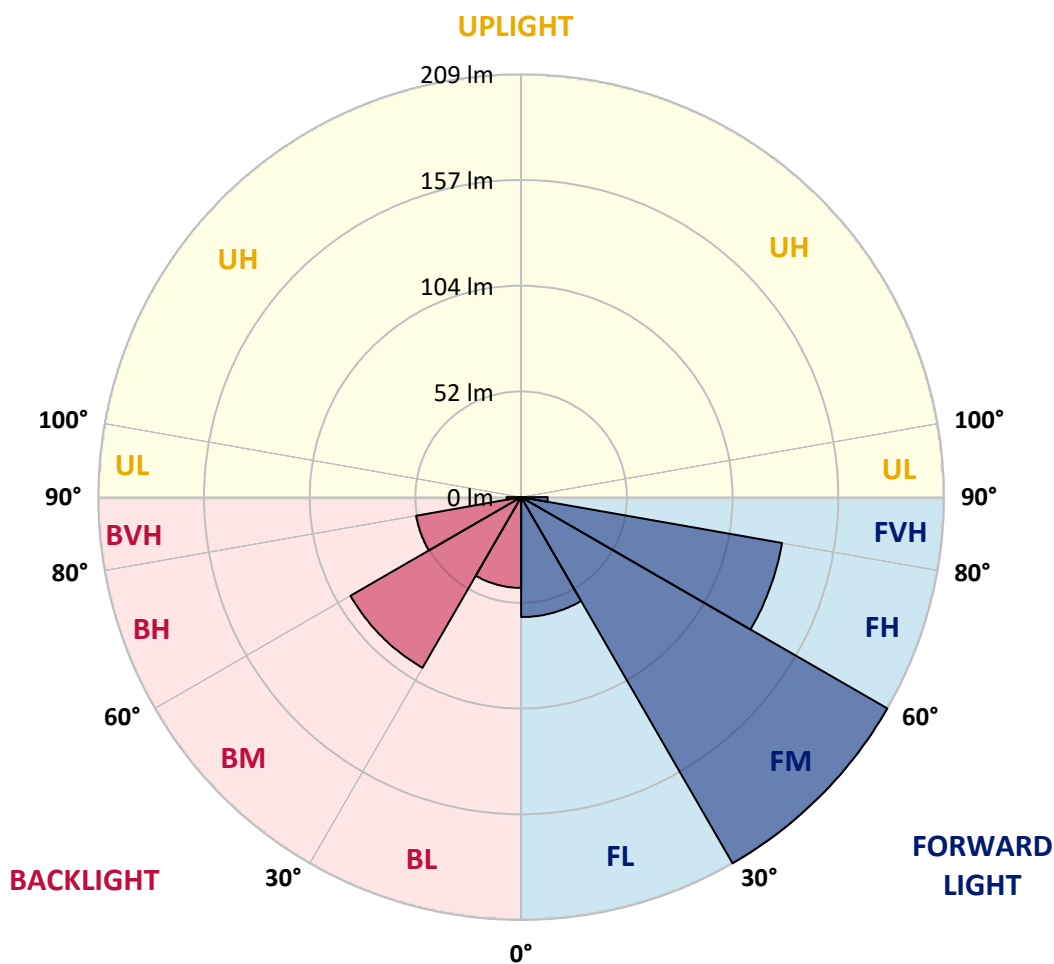
CATALOG NUMBER: EMM2-HSN-SA1A-AMB-U-T2U

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	59.3	9.6			
FM	(30°-60°)	209.0	34.0			
FH	(60°-80°)	130.9	21.3			G0/660
FVH	(80°-90°)	13.1	2.1			G1/100
BL	(0°-30°)	44.9	7.3	B0/110		
BM	(30°-60°)	97.4	15.9	B0/220		
BH	(60°-80°)	52.7	8.6	B0/110		G0/110
BVH	(80°-90°)	7.2	1.2			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 III Medium





REPORT NUMBER: P869225

CATALOG NUMBER: EMM2-HSN-SA1A-AMB-U-T2U

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	114.0	114.0	114.0	114.0	114.0	114.0	114.0	114.0	114.0	114.0	114.0
2.5°	112.1	112.1	112.1	112.1	112.1	113.1	113.1	113.1	113.1	113.1	114.0
5°	111.1	111.1	112.1	112.1	112.1	112.1	112.1	112.1	113.1	113.1	114.0
7.5°	113.1	113.1	113.1	113.1	113.1	112.1	112.1	112.1	113.1	113.1	114.0
10°	119.0	119.0	119.0	118.0	116.0	114.0	113.1	113.1	113.1	114.0	114.0
12.5°	127.9	128.9	127.9	125.0	122.0	118.0	116.0	115.0	115.0	115.0	116.0
15°	140.8	139.8	137.8	134.9	129.9	124.0	120.0	118.0	117.0	117.0	118.0
17.5°	151.7	152.7	150.7	145.8	138.8	130.9	125.0	121.0	120.0	120.0	120.0
20°	162.6	162.6	160.7	156.7	148.8	138.8	130.9	125.0	122.0	123.0	123.0
22.5°	168.6	168.6	168.6	164.6	158.7	149.7	138.8	129.9	125.9	125.9	125.9
25°	172.6	172.6	173.5	172.6	168.6	158.7	146.8	135.9	129.9	129.9	129.9
27.5°	173.5	174.5	175.5	175.5	172.6	166.6	155.7	141.8	133.9	133.9	133.9
30°	174.5	175.5	178.5	179.5	177.5	172.6	162.6	147.8	138.8	137.8	137.8
32.5°	176.5	177.5	179.5	182.5	182.5	178.5	168.6	154.7	144.8	144.8	142.8
35°	177.5	178.5	181.5	183.5	185.5	183.5	174.5	161.6	153.7	152.7	148.8
37.5°	179.5	180.5	182.5	186.4	188.4	187.4	181.5	169.6	159.7	157.7	155.7
40°	179.5	181.5	185.5	189.4	190.4	190.4	188.4	176.5	164.6	162.6	158.7
42.5°	180.5	183.5	188.4	192.4	190.4	191.4	192.4	183.5	172.6	170.6	165.6
45°	179.5	179.5	189.4	191.4	189.4	193.4	197.4	193.4	184.5	182.5	174.5
47.5°	171.6	171.6	177.5	184.5	186.4	193.4	203.3	204.3	195.4	194.4	182.5
50°	159.7	159.7	168.6	177.5	182.5	193.4	208.3	215.2	208.3	206.3	193.4
52.5°	136.9	137.8	151.7	167.6	175.5	191.4	213.2	226.1	219.2	218.2	203.3
55°	123.0	125.0	134.9	153.7	168.6	186.4	215.2	236.0	232.1	231.1	215.2
57.5°	108.1	111.1	123.0	132.9	156.7	178.5	216.2	245.9	245.9	245.0	229.1
60°	95.2	97.2	105.1	118.0	143.8	168.6	211.2	251.9	257.8	257.8	244.0
62.5°	81.3	82.3	90.2	103.1	125.9	156.7	203.3	255.9	269.7	270.7	255.9
65°	69.4	70.4	77.4	88.3	111.1	145.8	192.4	253.9	278.7	279.7	262.8
67.5°	57.5	58.5	65.5	75.4	96.2	130.9	178.5	245.0	281.6	282.6	257.8
70°	43.6	43.6	52.6	62.5	79.3	111.1	161.6	229.1	273.7	272.7	232.1
72.5°	32.7	33.7	42.6	50.6	64.5	88.3	138.8	206.3	250.9	247.9	201.3
75°	26.8	27.8	33.7	42.6	51.6	71.4	108.1	172.6	211.2	202.3	162.6
77.5°	22.8	22.8	25.8	33.7	42.6	54.5	80.3	134.9	159.7	152.7	120.0
80°	19.8	19.8	20.8	27.8	32.7	38.7	53.6	89.3	107.1	105.1	81.3
82.5°	17.9	16.9	16.9	21.8	25.8	28.8	35.7	54.5	69.4	67.4	56.5
85°	11.9	11.9	12.9	15.9	17.9	19.8	24.8	31.7	45.6	42.6	28.8
87.5°	6.9	6.9	6.9	8.9	9.9	10.9	12.9	14.9	16.9	16.9	11.9
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: P869225

CATALOG NUMBER: EMM2-HSN-SA1A-AMB-U-T2U

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	114.0	114.0	114.0	114.0	114.0	114.0	114.0	114.0	114.0	114.0	114.0
2.5°	114.0	114.0	114.0	114.0	115.0	115.0	114.0	114.0	114.0	115.0	115.0
5°	114.0	114.0	114.0	114.0	114.0	114.0	114.0	113.1	113.1	114.0	113.1
7.5°	114.0	114.0	115.0	115.0	114.0	112.1	111.1	110.1	110.1	110.1	110.1
10°	115.0	115.0	115.0	114.0	113.1	111.1	108.1	107.1	106.1	106.1	107.1
12.5°	116.0	116.0	116.0	114.0	111.1	108.1	106.1	104.1	103.1	103.1	103.1
15°	118.0	118.0	117.0	114.0	110.1	106.1	103.1	101.2	100.2	100.2	100.2
17.5°	121.0	121.0	119.0	114.0	108.1	104.1	102.1	100.2	99.2	98.2	99.2
20°	124.0	124.0	120.0	113.1	107.1	103.1	100.2	98.2	97.2	97.2	97.2
22.5°	126.9	126.9	121.0	113.1	106.1	102.1	99.2	97.2	95.2	95.2	95.2
25°	130.9	128.9	122.0	112.1	105.1	100.2	97.2	95.2	93.2	92.2	92.2
27.5°	132.9	131.9	122.0	111.1	103.1	98.2	95.2	91.2	88.3	88.3	87.3
30°	136.9	133.9	122.0	109.1	100.2	95.2	91.2	87.3	85.3	84.3	84.3
32.5°	141.8	137.8	123.0	108.1	98.2	92.2	87.3	84.3	81.3	80.3	80.3
35°	145.8	140.8	124.0	107.1	95.2	88.3	83.3	81.3	77.4	76.4	75.4
37.5°	151.7	144.8	123.0	104.1	92.2	84.3	80.3	76.4	73.4	72.4	71.4
40°	153.7	145.8	122.0	102.1	90.2	80.3	75.4	71.4	70.4	69.4	69.4
42.5°	158.7	148.8	121.0	100.2	86.3	76.4	70.4	67.4	66.4	64.5	64.5
45°	165.6	153.7	122.0	99.2	83.3	72.4	65.5	61.5	60.5	58.5	58.5
47.5°	173.5	158.7	123.0	97.2	80.3	67.4	59.5	55.5	53.6	51.6	51.6
50°	181.5	164.6	124.0	96.2	76.4	62.5	53.6	48.6	46.6	44.6	44.6
52.5°	190.4	170.6	125.9	94.2	71.4	57.5	47.6	43.6	40.7	39.7	39.7
55°	201.3	176.5	126.9	92.2	66.4	51.6	42.6	38.7	36.7	35.7	35.7
57.5°	210.2	181.5	126.9	89.3	61.5	46.6	38.7	35.7	33.7	33.7	33.7
60°	220.2	184.5	126.9	86.3	57.5	41.7	35.7	32.7	31.7	32.7	32.7
62.5°	227.1	184.5	125.9	83.3	52.6	37.7	32.7	30.7	29.8	31.7	31.7
65°	227.1	180.5	124.0	77.4	46.6	34.7	29.8	27.8	27.8	28.8	28.8
67.5°	218.2	176.5	120.0	69.4	40.7	31.7	26.8	25.8	25.8	26.8	25.8
70°	198.3	163.6	108.1	56.5	35.7	27.8	24.8	23.8	23.8	23.8	23.8
72.5°	176.5	145.8	86.3	46.6	30.7	24.8	21.8	21.8	20.8	20.8	20.8
75°	140.8	118.0	64.5	35.7	24.8	21.8	19.8	18.8	18.8	19.8	19.8
77.5°	108.1	84.3	45.6	27.8	19.8	17.9	17.9	16.9	17.9	20.8	19.8
80°	75.4	58.5	32.7	19.8	15.9	15.9	15.9	14.9	20.8	24.8	23.8
82.5°	49.6	40.7	23.8	15.9	12.9	12.9	12.9	15.9	21.8	22.8	22.8
85°	23.8	23.8	15.9	9.9	9.9	8.9	9.9	16.9	15.9	13.9	12.9
87.5°	9.9	8.9	6.9	4.0	4.0	4.0	5.0	10.9	6.0	6.0	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



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

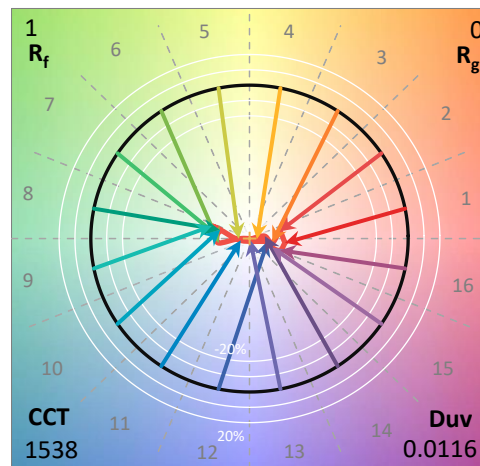
**Test Information**

Test Method: LM-79-2019  
 Report Number: SP1-2407-157-1  
 Test Lab: COOPER LIGHTING SOLUTIONS  
 Photometer: SP1 - 76IN SPHERE  
 Measurement Geometry:  $4\pi$   
 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  
 R<sub>f</sub>: 1.1  
 R<sub>g</sub>: 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**

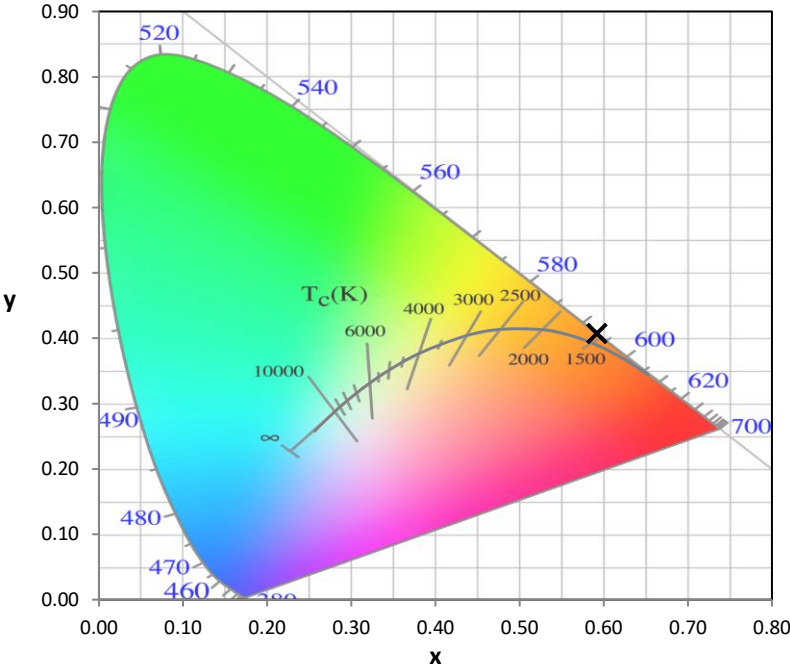
Stabilization Time: 20M  
 Operation Time: 1H 20M  
 Sphere Temperature (°C): 24.2

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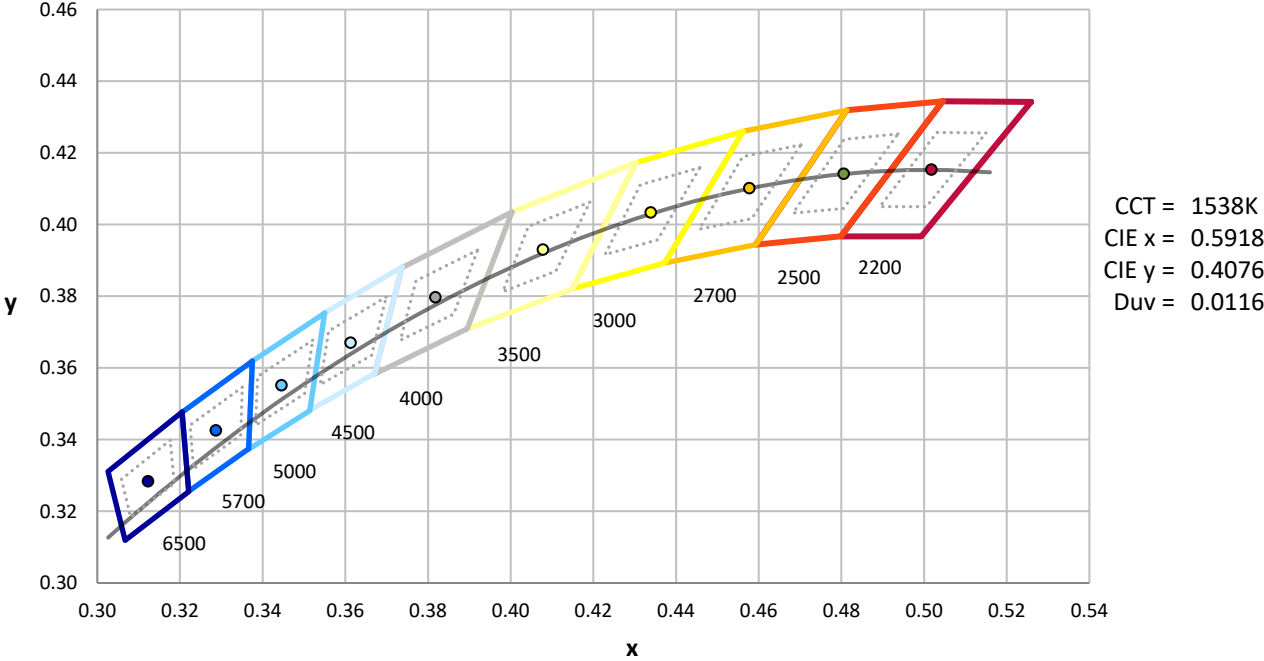
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

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CIE 1931 Chromaticity Diagram



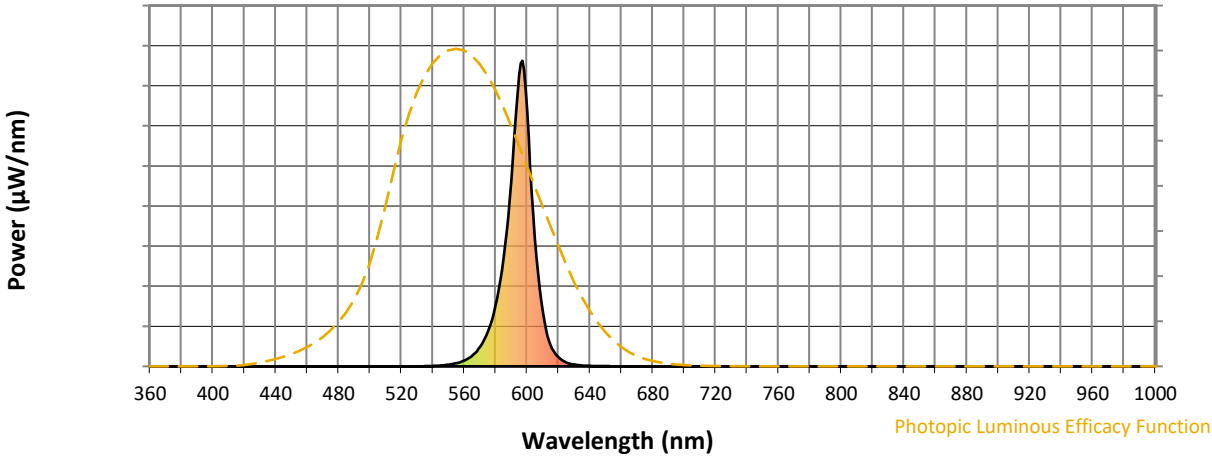
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies outside the range

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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**



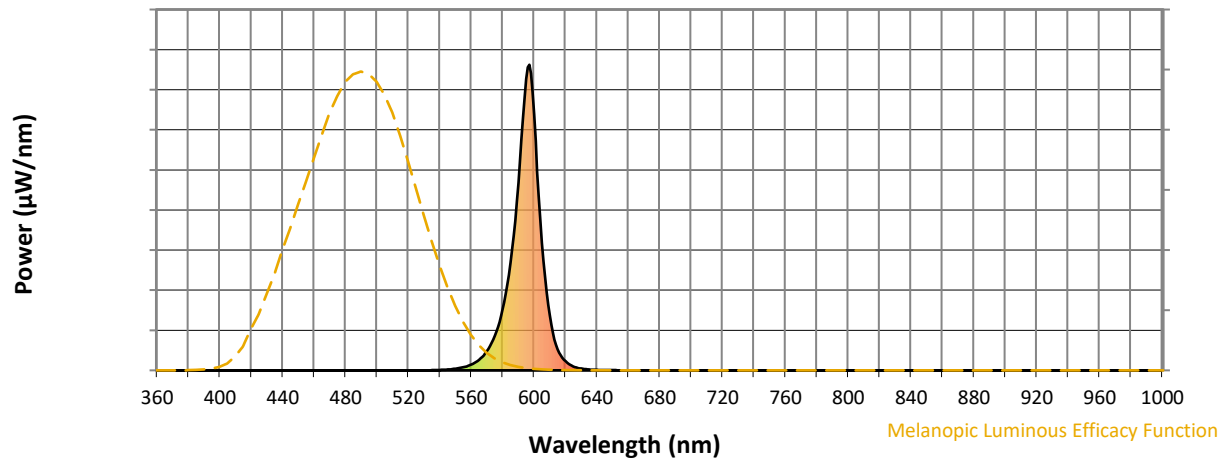
**Scotopic Lumens: NR**

**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**



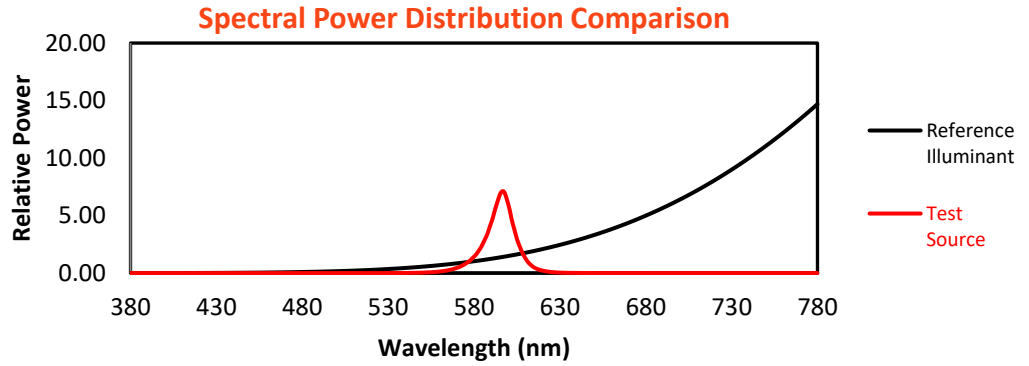
**Melanopic Lumens: NR**

**M/P: 0.12**

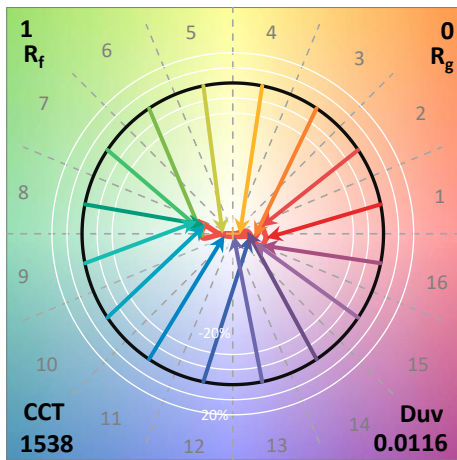
λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)
360	0	NR	490	0	NR	620	30	NR	750	0	NR	880	0	NR
365	0	NR	495	0	NR	625	13	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**

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



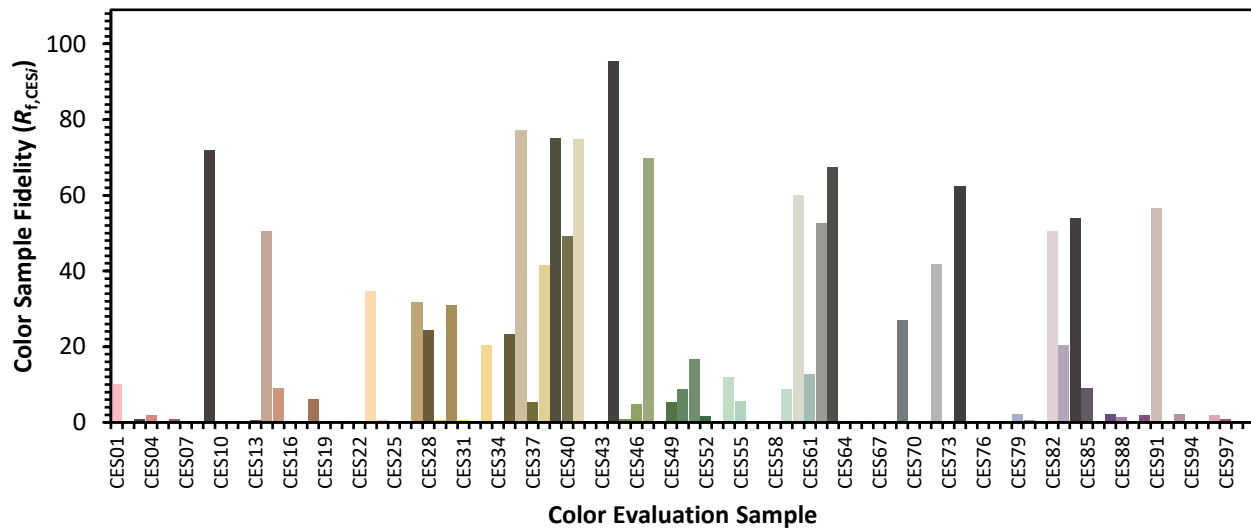
**Color Vector Graphics**



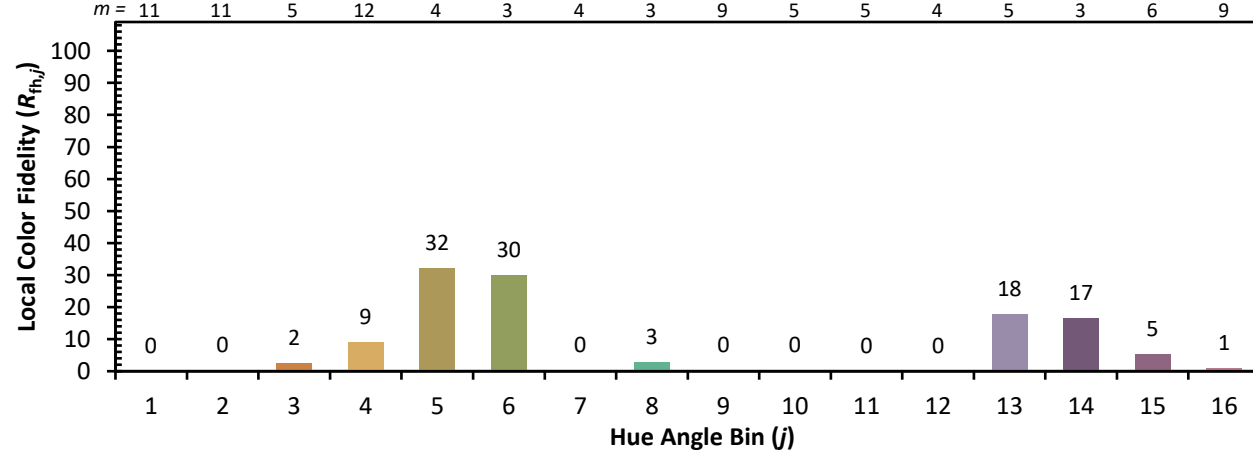
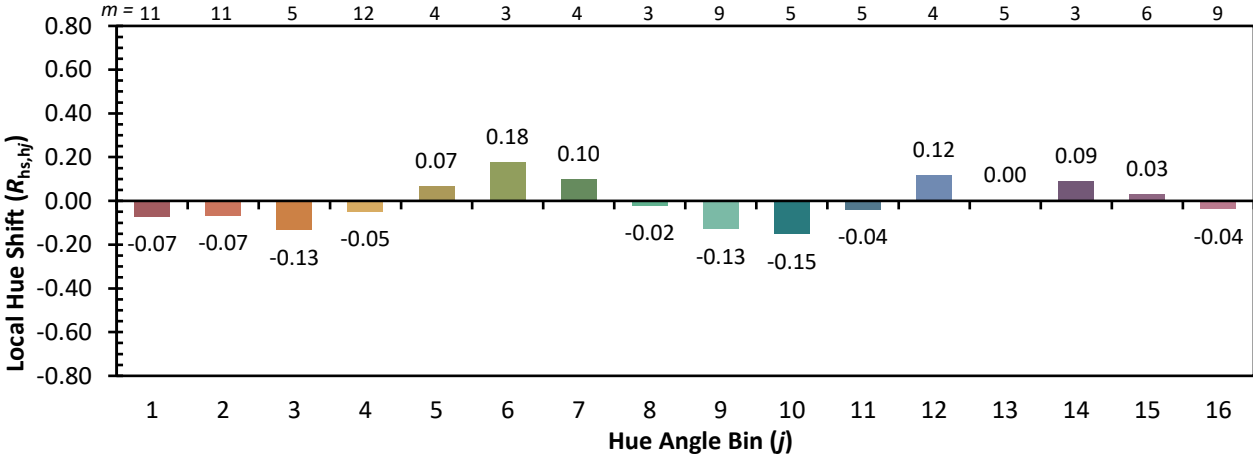
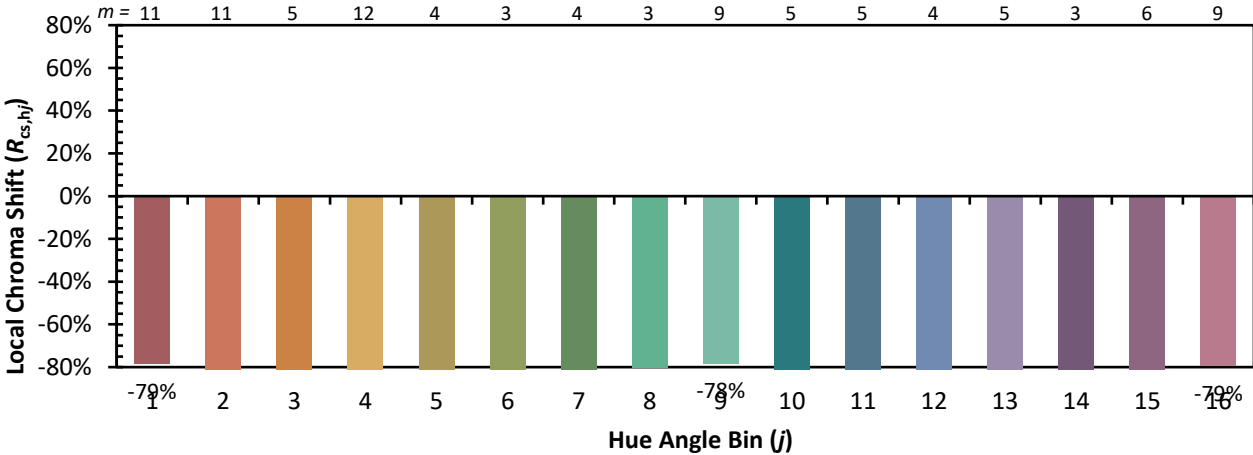


**Individual Sample Fidelity Index ( $R_{f,i}$ )**

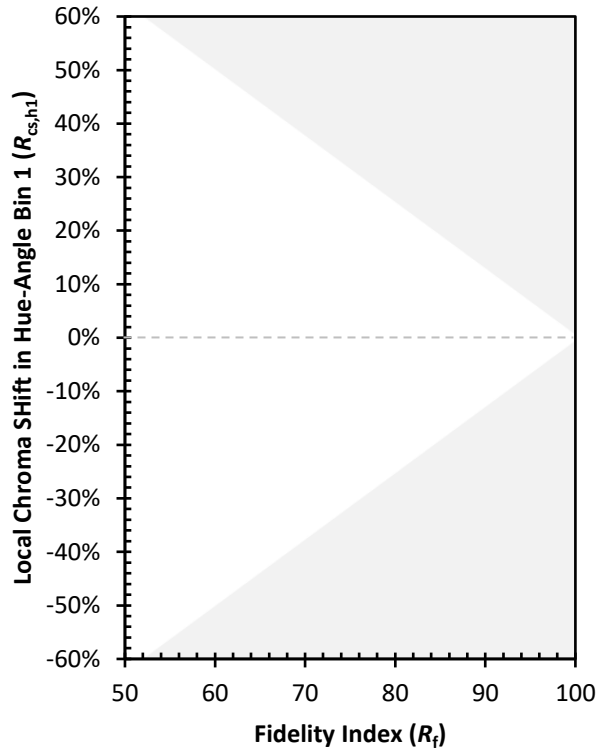
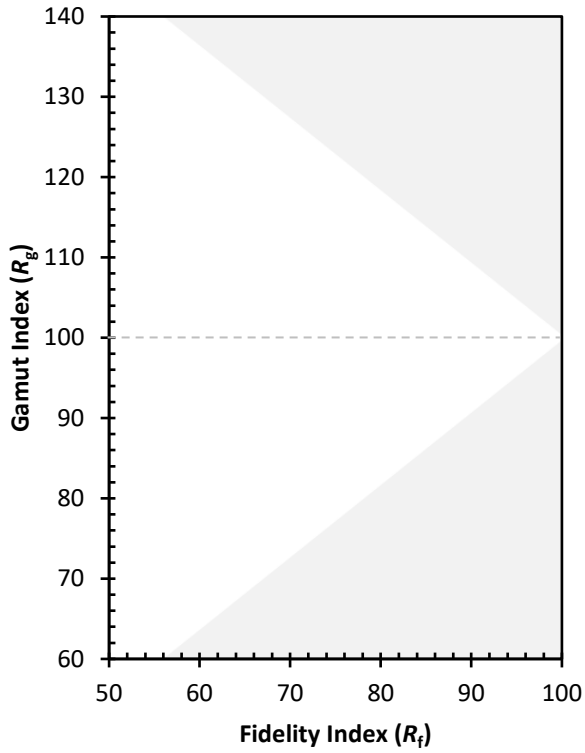
CES01 = 90	CES26 = 0	CES51 = 17	CES76 = 0
CES02 = 70	CES27 = 32	CES52 = 2	CES77 = 0
CES03 = 31	CES28 = 24	CES53 = 0	CES78 = 0
CES04 = 77	CES29 = 1	CES54 = 12	CES79 = 2
CES05 = 52	CES30 = 31	CES55 = 6	CES80 = 1
CES06 = 56	CES31 = 1	CES56 = 0	CES81 = 0
CES07 = 41	CES32 = 0	CES57 = 0	CES82 = 50
CES08 = 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)