

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: P868900

Luminaire Tested: **EMM2-HSN-SA1A-722-U-T2U-HSS**

Issue Date: 08/22/2024



**Test Information**

Test Method: LM-79-08  
Report Number: P868900  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 08/22/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: EMM2-HSN-SA1A-722-U-T2U-HSS  
Description: EPIC MODERN SHORT HOUSING DISCRETE LED ARRAYS 40W 70CRI 2200K  
FITXURE w/ TYPE II URBAN DISTRIBUTION OPTIC AND HOUSE SIDE SHIELD  
Light Source: (10) 2200K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

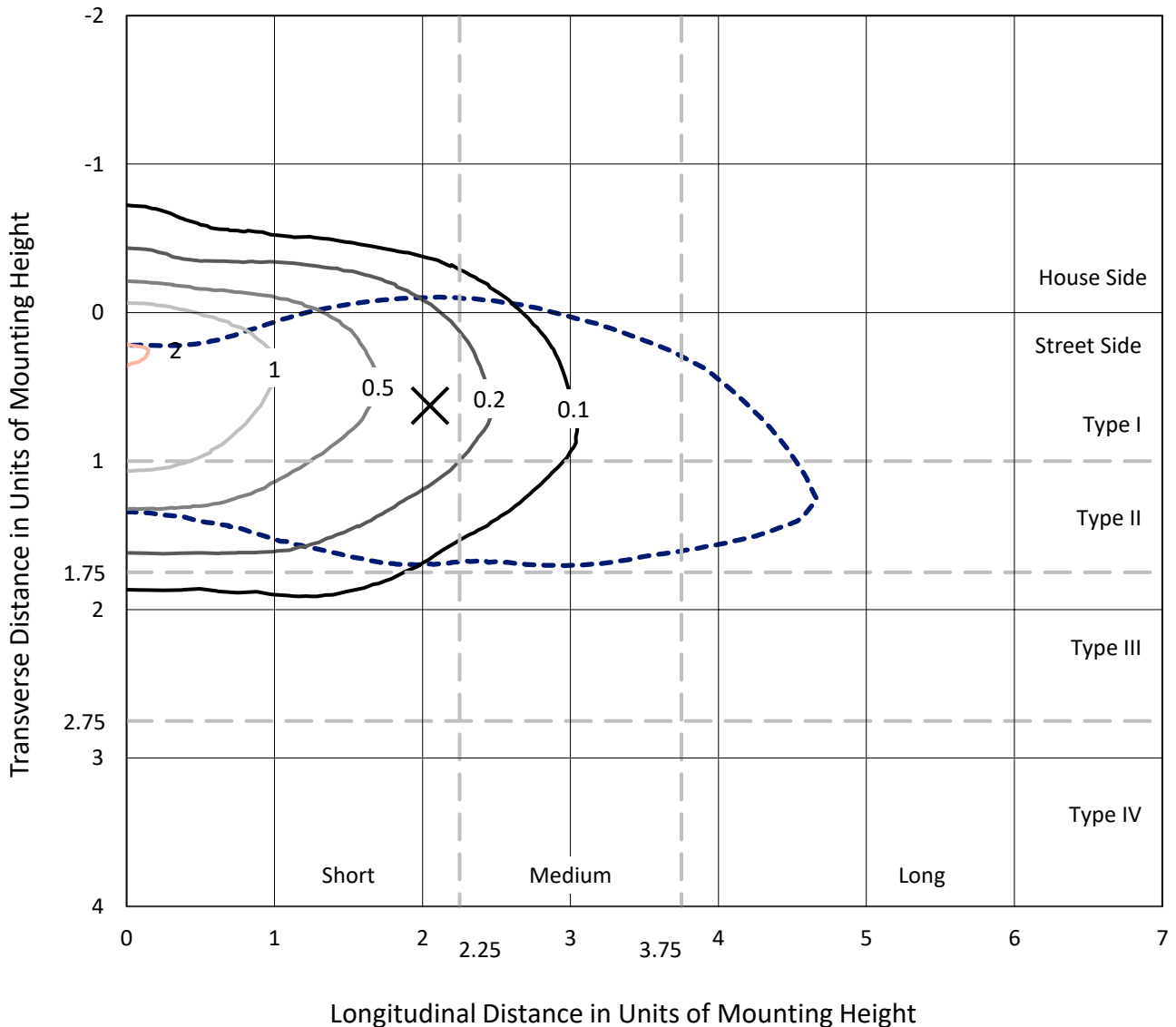
Lumens per Lamp: N/A  
Luminaire Lumens: 2889.5 lumens  
Efficiency: N/A  
Efficacy: 88.1 lumens/watt  
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B1 - U0 - G1

Input Watts (W): 32.8  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: 0.99  
Total Harmonic Distortion (THDi): 9.76%  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT

REPORT NUMBER: P868900  
 CATALOG NUMBER: EMM2-HSN-SA1A-722-U-T2U-HSS

### Iso-Footcandle Lines of Horizontal Illumination

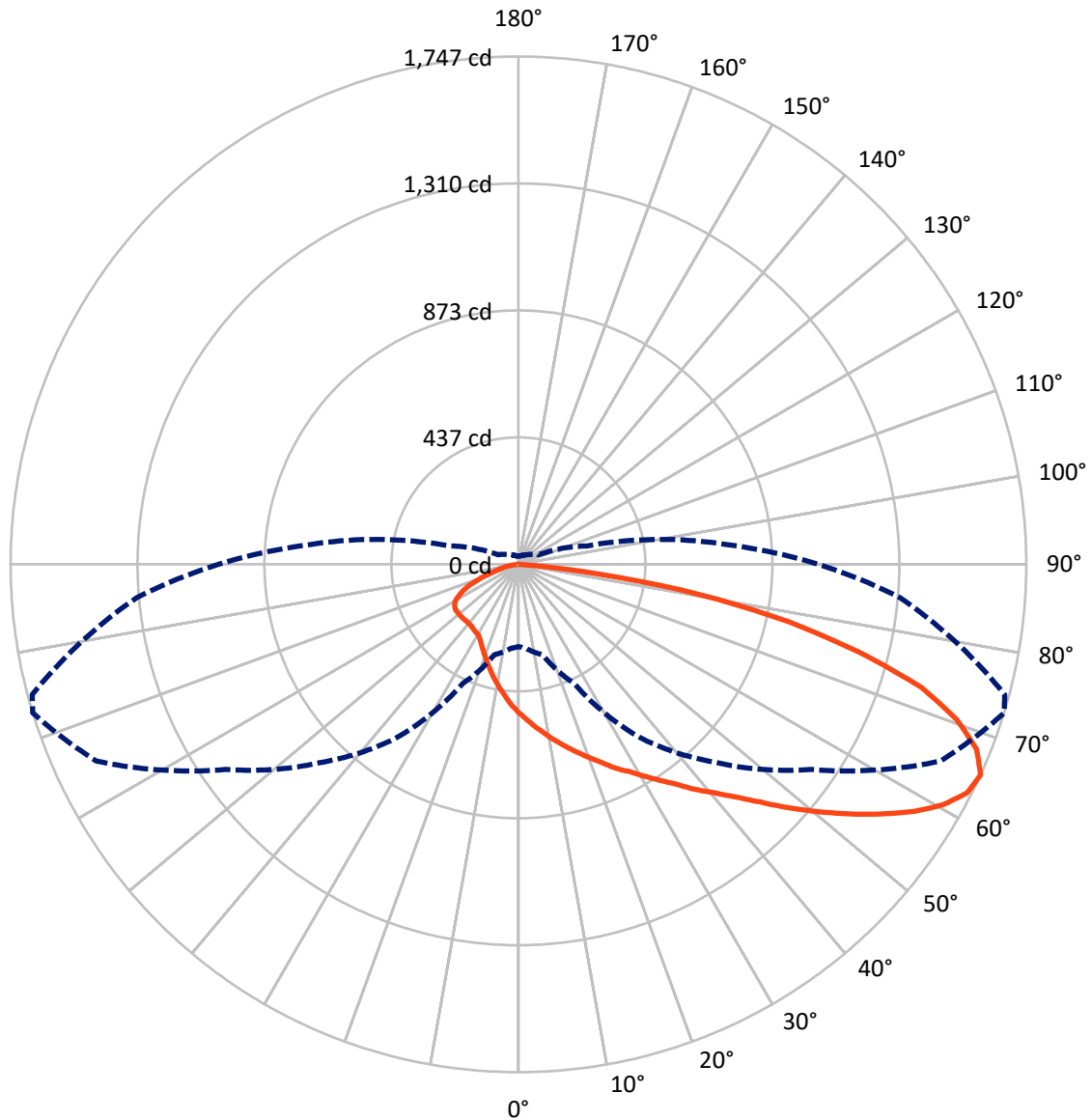
× Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 2.1 fc  
 Type II - Short - N/A

REPORT NUMBER: P868900  
CATALOG NUMBER: EMM2-HSN-SA1A-722-U-T2U-HSS

### Luminous Intensity Polar Plot



— Vertical Plane Through 73-Deg Lateral      - - - Horizontal Cone Through 65-Deg Vertical

REPORT NUMBER: P868900

CATALOG NUMBER: EMM2-HSN-SA1A-722-U-T2U-HSS

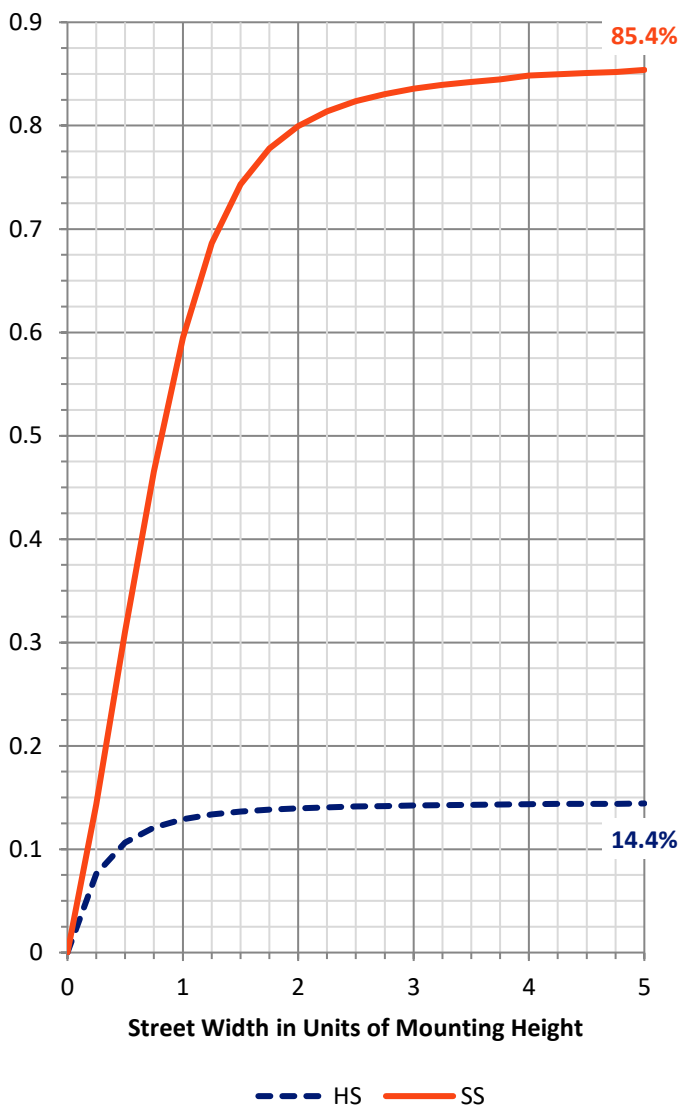
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	420.2	0.0	420.2
	% Fixture	14.5	0.0	14.5
<b>Street Side</b>	Lumens	2469.3	0.0	2469.3
	% Fixture	85.5	0.0	85.5
<b>Total</b>	Lumens	2889.5	0.0	2889.5
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	49.5	1.7
10°-20°	150.4	5.2
20°-30°	251.8	8.7
30°-40°	379.9	13.1
40°-50°	536.8	18.6
50°-60°	604.0	20.9
60°-70°	541.6	18.7
70°-80°	329.4	11.4
80°-90°	46.1	1.6
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°	2889.5	100.0
0°-180°	2889.5	100.0

**Coefficient of Utilization**



REPORT NUMBER: P868900

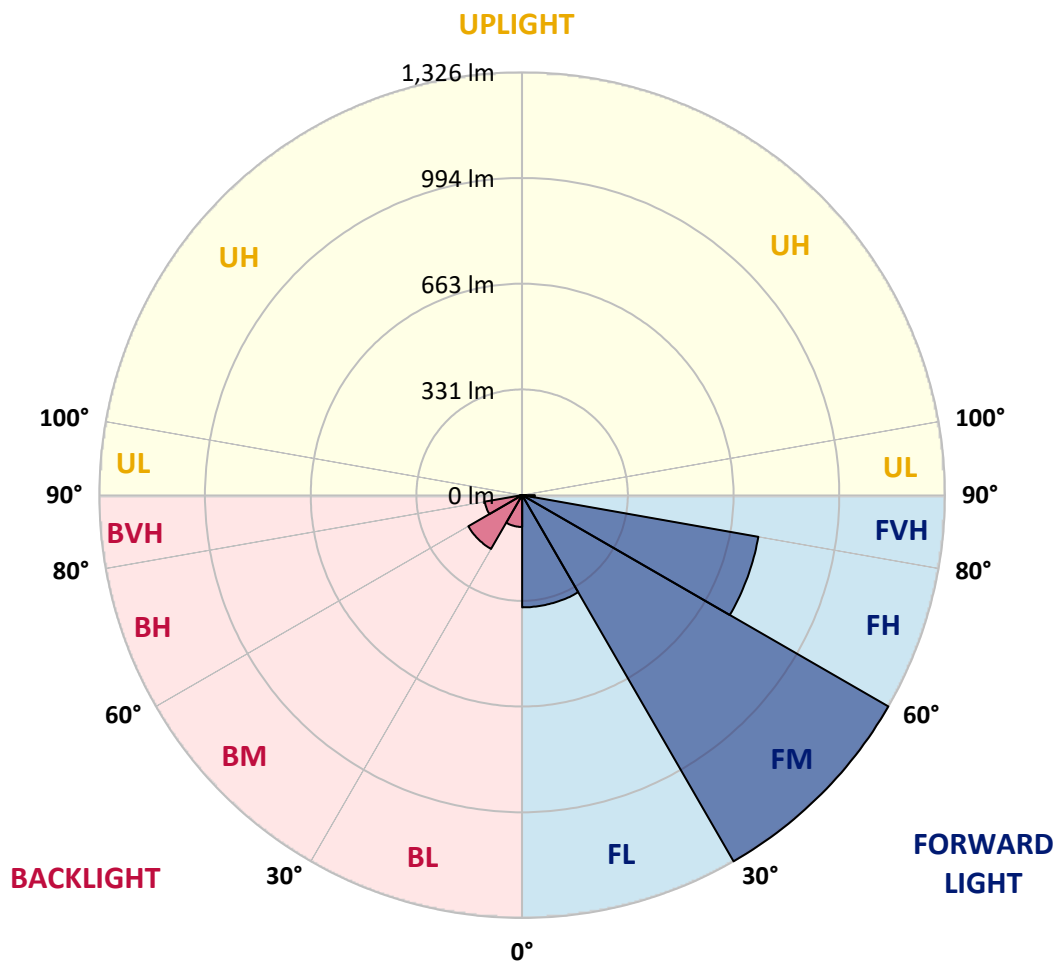
CATALOG NUMBER: EMM2-HSN-SA1A-722-U-T2U-HSS

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	351.9	12.2			
FM (30°-60°)	1325.8	45.9			
FH (60°-80°)	752.0	26.0			G1/1800
FVH (80°-90°)	39.6	1.4			G1/100
BL (0°-30°)	99.8	3.5	B0/110		
BM (30°-60°)	194.8	6.7	B0/220		
BH (60°-80°)	119.0	4.1	B1/500		G1/500
BVH (80°-90°)	6.5	0.2			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G1**

Type II Short





REPORT NUMBER: P868900

CATALOG NUMBER: EMM2-HSN-SA1A-722-U-T2U-HSS

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	73°	75°	85°
0°	512.6	512.6	512.6	512.6	512.6	512.6	512.6	512.6	512.6	512.6	512.6
2.5°	591.6	588.2	583.1	578.9	571.2	561.0	552.5	541.5	533.8	531.3	520.2
5°	677.5	673.3	667.3	657.1	636.7	624.8	602.7	577.2	556.8	552.5	527.0
7.5°	765.9	764.2	750.6	735.3	710.7	684.3	650.3	610.3	580.6	573.8	534.7
10°	840.7	833.1	825.4	811.0	784.6	747.2	703.0	647.8	606.1	595.0	542.3
12.5°	885.8	883.2	876.4	859.4	833.9	801.6	748.9	684.3	630.8	615.4	550.0
15°	918.9	921.5	914.7	903.6	877.3	846.7	795.7	722.6	657.1	639.3	558.5
17.5°	950.4	948.7	947.8	935.1	911.3	880.7	828.8	754.0	683.5	663.9	567.0
20°	968.2	969.1	967.4	962.3	939.3	909.6	861.1	791.4	712.4	690.3	578.0
22.5°	977.6	981.0	984.4	983.5	964.8	941.9	891.7	821.2	742.1	719.2	591.6
25°	983.5	986.1	993.7	1003.9	986.9	968.2	925.7	856.9	777.0	750.6	607.8
27.5°	988.6	992.0	1001.4	1016.7	1003.1	992.0	955.5	887.5	806.7	782.9	626.5
30°	1021.8	1026.0	1026.0	1033.7	1018.4	1015.8	988.6	924.0	844.1	818.6	650.3
32.5°	1109.3	1100.8	1085.5	1077.9	1041.3	1042.2	1020.9	960.6	884.1	858.6	680.1
35°	1185.0	1185.0	1166.3	1141.6	1083.0	1071.1	1058.3	1009.0	927.4	902.8	719.2
37.5°	1258.1	1259.0	1239.4	1218.1	1151.0	1108.5	1101.7	1055.8	981.0	952.1	760.0
40°	1304.0	1309.1	1304.0	1287.9	1223.2	1173.9	1144.2	1108.5	1032.0	1009.9	806.7
42.5°	1311.7	1321.9	1340.6	1345.7	1276.0	1232.6	1198.6	1162.9	1093.2	1068.5	860.3
45°	1292.1	1295.5	1337.2	1343.1	1315.1	1279.4	1256.4	1226.6	1166.3	1145.0	919.8
47.5°	1238.5	1231.7	1246.2	1298.1	1309.1	1307.4	1313.4	1298.9	1251.3	1224.1	985.2
50°	1123.8	1126.3	1173.1	1236.0	1274.3	1317.6	1355.9	1372.0	1337.2	1310.0	1055.8
52.5°	914.7	926.6	1015.8	1164.6	1230.9	1310.8	1386.5	1440.9	1426.4	1400.1	1125.5
55°	751.5	769.3	858.6	1049.8	1171.4	1277.7	1404.3	1513.1	1515.7	1495.3	1189.2
57.5°	588.2	602.7	697.1	872.2	1086.4	1225.8	1406.9	1575.2	1604.1	1580.3	1245.4
60°	460.7	470.9	526.2	726.8	981.8	1151.8	1388.2	1624.5	1678.9	1661.0	1293.8
62.5°	349.4	357.0	406.3	574.6	853.5	1065.1	1325.3	1642.3	1731.6	1714.6	1321.0
65°	283.1	289.9	322.2	451.4	726.8	964.8	1230.0	1601.5	1746.9	1731.6	1317.6
67.5°	231.2	233.8	260.1	351.9	614.6	851.8	1090.6	1495.3	1700.1	1699.3	1278.5
70°	187.0	193.8	215.9	280.5	510.9	721.7	928.3	1328.7	1599.0	1607.5	1200.3
72.5°	159.0	160.7	180.2	232.1	416.5	585.7	768.5	1136.5	1450.2	1457.0	1077.9
75°	134.3	136.9	151.3	187.9	338.3	465.0	618.0	918.1	1213.9	1242.8	907.9
77.5°	115.6	116.5	126.7	154.7	240.6	349.4	453.1	688.6	950.4	970.8	713.2
80°	91.0	92.7	103.7	122.4	167.5	227.0	312.8	470.9	635.0	658.0	493.9
82.5°	42.5	47.6	50.2	67.2	87.6	112.2	147.9	196.4	287.3	286.5	230.4
85°	4.3	3.4	3.4	5.1	7.7	7.7	9.4	11.1	22.1	26.4	20.4
87.5°	0.0	0.0	0.0	0.9	1.7	1.7	1.7	2.6	2.6	2.6	2.6
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: P868900

CATALOG NUMBER: EMM2-HSN-SA1A-722-U-T2U-HSS

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	512.6	512.6	512.6	512.6	512.6	512.6	512.6	512.6	512.6	512.6	512.6
2.5°	515.1	507.5	493.9	481.1	472.6	465.8	454.8	448.0	442.9	436.1	435.2
5°	513.4	499.8	472.6	449.7	427.6	408.9	389.3	377.4	364.7	358.7	363.8
7.5°	515.1	493.0	450.5	415.7	382.5	352.8	327.3	311.1	299.2	293.3	294.1
10°	516.0	487.1	431.8	383.4	340.9	306.0	277.1	255.0	240.6	237.2	232.9
12.5°	514.3	479.4	413.1	351.9	300.9	262.7	228.7	211.7	197.2	190.4	190.4
15°	516.0	473.5	393.6	323.0	265.2	221.0	192.1	173.4	164.9	159.0	159.8
17.5°	516.0	468.4	374.9	295.0	230.4	189.6	163.2	147.9	139.4	136.0	135.2
20°	521.9	464.1	357.0	268.6	199.8	161.5	140.3	128.4	121.6	118.2	116.5
22.5°	526.2	460.7	340.9	243.1	174.3	141.1	123.3	112.2	107.1	105.4	105.4
25°	533.8	459.9	326.4	218.5	153.9	125.8	109.7	101.2	96.9	95.2	95.2
27.5°	544.9	461.6	312.8	197.2	138.6	110.5	98.6	91.8	89.3	88.4	87.6
30°	561.0	469.2	304.3	181.1	124.1	101.2	90.1	85.9	84.2	83.3	83.3
32.5°	582.3	482.8	300.9	172.6	115.6	93.5	84.2	80.8	79.1	79.1	78.2
35°	608.6	498.1	298.4	164.9	109.7	88.4	79.9	76.5	75.7	75.7	75.7
37.5°	640.1	514.3	294.1	159.8	106.3	84.2	76.5	73.1	73.1	73.1	73.1
40°	675.0	538.1	293.3	156.4	103.7	81.6	73.1	69.7	69.7	69.7	69.7
42.5°	714.1	563.6	292.4	153.9	102.0	79.9	69.7	66.3	66.3	66.3	66.3
45°	761.7	595.9	294.1	152.2	102.0	78.2	67.2	62.9	62.1	62.1	62.1
47.5°	808.4	626.5	295.8	150.5	100.3	75.7	63.8	59.5	58.7	57.8	57.8
50°	858.6	658.0	295.8	148.8	98.6	73.1	61.2	55.3	54.4	53.6	53.6
52.5°	907.9	684.3	296.7	146.2	94.4	68.9	57.0	51.9	50.2	49.3	48.5
55°	955.5	712.4	297.5	142.0	89.3	64.6	54.4	48.5	45.9	44.2	44.2
57.5°	991.2	735.3	293.3	133.5	82.5	60.4	50.2	44.2	40.8	39.1	39.1
60°	1025.2	749.8	285.6	120.7	75.7	56.1	46.8	40.0	36.6	34.9	34.9
62.5°	1038.8	752.3	267.8	98.6	67.2	51.9	42.5	36.6	34.0	33.2	33.2
65°	1031.1	741.3	244.0	78.2	59.5	46.8	39.1	34.0	30.6	28.1	28.1
67.5°	989.5	703.0	211.7	62.1	51.9	42.5	35.7	30.6	27.2	24.7	24.7
70°	910.4	641.8	164.9	49.3	45.1	37.4	32.3	28.1	24.7	22.1	22.1
72.5°	794.0	556.8	119.9	41.7	39.1	33.2	28.9	25.5	22.1	20.4	20.4
75°	654.6	429.3	85.0	35.7	34.9	29.8	26.4	23.0	20.4	18.7	18.7
77.5°	491.3	299.2	66.3	31.5	30.6	27.2	23.8	21.3	18.7	17.9	17.0
80°	327.3	185.3	50.2	23.8	23.0	21.3	19.6	17.9	15.3	13.6	13.6
82.5°	146.2	78.2	25.5	13.6	11.9	10.2	8.5	6.0	6.0	5.1	5.1
85°	15.3	10.2	5.1	3.4	3.4	2.6	2.6	2.6	1.7	1.7	1.7
87.5°	2.6	2.6	1.7	1.7	1.7	0.9	0.9	0.9	0.9	0.9	0.9
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: SP1-2407-157-2

Test Date: 08/07/2024

Luminaire Tested: MEM2-HTN-SA-40-722-U-5WQ-2

Data in this report applies to families of products including MEM2-HTN-SA-40-722-U-5WQ-2

**Test Information**

Test Method: LM-79-2019  
 Report Number: SP1-2407-157-2  
 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-40-722-U-5WQ-2**  
 Description: Epic Modern Light Square 40W 5WQ Optic and Flare Trim

**Spectral Parameters**

CCT (K): 2253  
 CIE u': 0.2868  
 CIE v': 0.5332  
 Duv: -0.0014  
 CIE x: 0.4974  
 CIE y: 0.4110  
 CIE z: 0.0915  
 Peak Wavelength (nm): 603  
 Dominant Wavelength (nm): 587  
 Purity: 72.69432  
 R<sub>f</sub>: 76.9  
 R<sub>g</sub>: 92.7

CRI (Ra):	70.6		
R1:	68.4	R9:	-36.0
R2:	88.7	R10:	78.2
R3:	85.4	R11:	61.0
R4:	63.5	R12:	74.2
R5:	69.0	R13:	72.8
R6:	88.9	R14:	92.2
R7:	68.5	R15:	58.0
R8:	32.0		



**Test Conditions**

Stabilization Time: 29M  
 Operation Time: 1H 29M  
 Sphere Temperature (°C): 24.1

REPORT NUMBER: SP1-2407-157-2

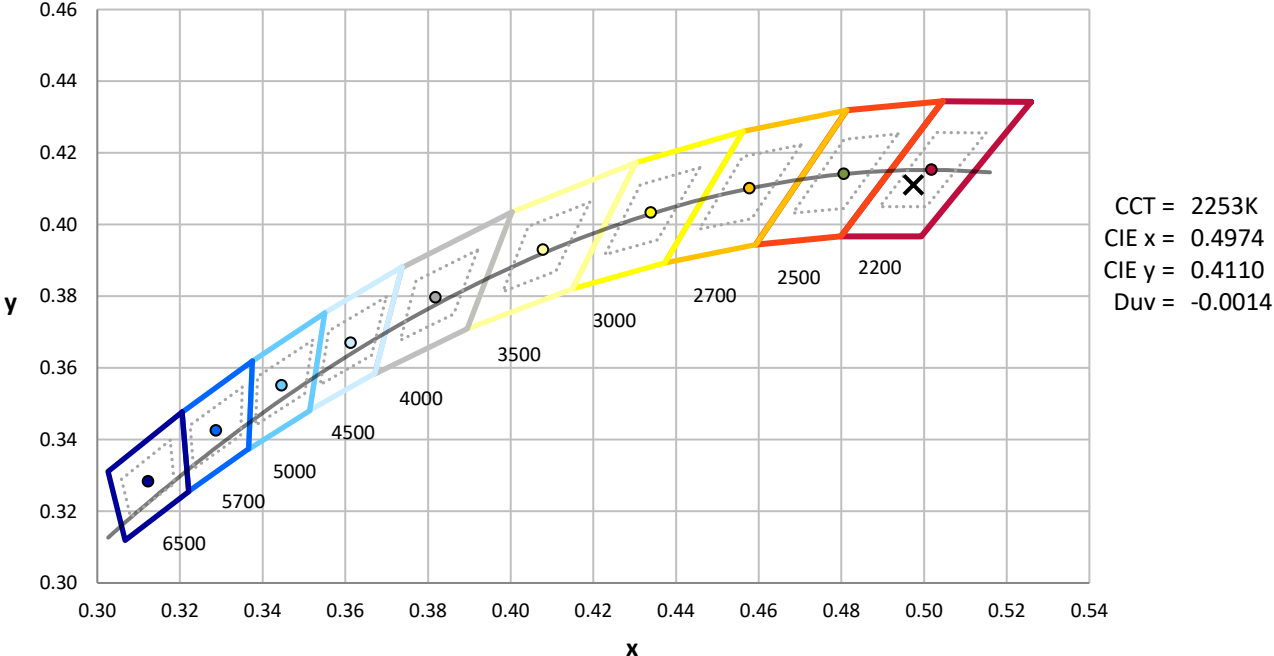
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

REPORT NUMBER: SP1-2407-157-2

**CIE 1931 Chromaticity Diagram**



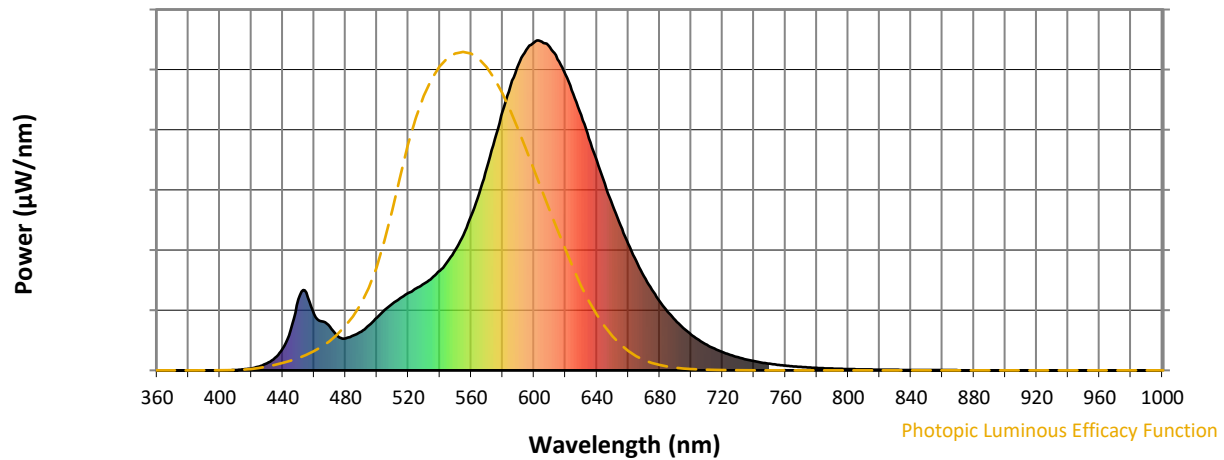
**CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles**



Point lies inside the ANSI 2200K 4-step quadrangle

REPORT NUMBER: SP1-2407-157-2

**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	117	NR	620	896	NR	750	20	NR	880	0	NR
365	0	NR	495	137	NR	625	838	NR	755	17	NR	885	0	NR
370	0	NR	500	160	NR	630	774	NR	760	14	NR	890	0	NR
375	0	NR	505	183	NR	635	704	NR	765	12	NR	895	0	NR
380	0	NR	510	202	NR	640	635	NR	770	10	NR	900	0	NR
385	0	NR	515	219	NR	645	565	NR	775	9	NR	905	0	NR
390	0	NR	520	235	NR	650	501	NR	780	7	NR	910	0	NR
395	0	NR	525	249	NR	655	440	NR	785	6	NR	915	0	NR
400	0	NR	530	263	NR	660	383	NR	790	5	NR	920	0	NR
405	0	NR	535	281	NR	665	332	NR	795	5	NR	925	0	NR
410	1	NR	540	302	NR	670	286	NR	800	4	NR	930	0	NR
415	3	NR	545	331	NR	675	245	NR	805	3	NR	935	0	NR
420	6	NR	550	366	NR	680	210	NR	810	3	NR	940	0	NR
425	12	NR	555	411	NR	685	178	NR	815	3	NR	945	0	NR
430	21	NR	560	469	NR	690	152	NR	820	2	NR	950	0	NR
435	38	NR	565	536	NR	695	129	NR	825	2	NR	955	0	NR
440	66	NR	570	614	NR	700	109	NR	830	2	NR	960	0	NR
445	122	NR	575	701	NR	705	92	NR	835	1	NR	965	0	NR
450	215	NR	580	785	NR	710	77	NR	840	1	NR	970	0	NR
455	236	NR	585	863	NR	715	66	NR	845	1	NR	975	0	NR
460	170	NR	590	928	NR	720	55	NR	850	1	NR	980	0	NR
465	148	NR	595	971	NR	725	47	NR	855	1	NR	985	0	NR
470	132	NR	600	994	NR	730	40	NR	860	1	NR	990	0	NR
475	104	NR	605	996	NR	735	33	NR	865	1	NR	995	0	NR
480	97	NR	610	979	NR	740	28	NR	870	1	NR	1000	0	NR
485	105	NR	615	943	NR	745	24	NR	875	0	NR			

REPORT NUMBER: SP1-2407-157-2

**Scotopic Flux vs. Wavelength**



**Scotopic Lumens: NR**

**S/P: 0.96**

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	117	NR	620	896	NR	750	20	NR	880	0	NR
365	0	NR	495	137	NR	625	838	NR	755	17	NR	885	0	NR
370	0	NR	500	160	NR	630	774	NR	760	14	NR	890	0	NR
375	0	NR	505	183	NR	635	704	NR	765	12	NR	895	0	NR
380	0	NR	510	202	NR	640	635	NR	770	10	NR	900	0	NR
385	0	NR	515	219	NR	645	565	NR	775	9	NR	905	0	NR
390	0	NR	520	235	NR	650	501	NR	780	7	NR	910	0	NR
395	0	NR	525	249	NR	655	440	NR	785	6	NR	915	0	NR
400	0	NR	530	263	NR	660	383	NR	790	5	NR	920	0	NR
405	0	NR	535	281	NR	665	332	NR	795	5	NR	925	0	NR
410	1	NR	540	302	NR	670	286	NR	800	4	NR	930	0	NR
415	3	NR	545	331	NR	675	245	NR	805	3	NR	935	0	NR
420	6	NR	550	366	NR	680	210	NR	810	3	NR	940	0	NR
425	12	NR	555	411	NR	685	178	NR	815	3	NR	945	0	NR
430	21	NR	560	469	NR	690	152	NR	820	2	NR	950	0	NR
435	38	NR	565	536	NR	695	129	NR	825	2	NR	955	0	NR
440	66	NR	570	614	NR	700	109	NR	830	2	NR	960	0	NR
445	122	NR	575	701	NR	705	92	NR	835	1	NR	965	0	NR
450	215	NR	580	785	NR	710	77	NR	840	1	NR	970	0	NR
455	236	NR	585	863	NR	715	66	NR	845	1	NR	975	0	NR
460	170	NR	590	928	NR	720	55	NR	850	1	NR	980	0	NR
465	148	NR	595	971	NR	725	47	NR	855	1	NR	985	0	NR
470	132	NR	600	994	NR	730	40	NR	860	1	NR	990	0	NR
475	104	NR	605	996	NR	735	33	NR	865	1	NR	995	0	NR
480	97	NR	610	979	NR	740	28	NR	870	1	NR	1000	0	NR
485	105	NR	615	943	NR	745	24	NR	875	0	NR			

REPORT NUMBER: SP1-2407-157-2

Melanopic Flux vs. Wavelength



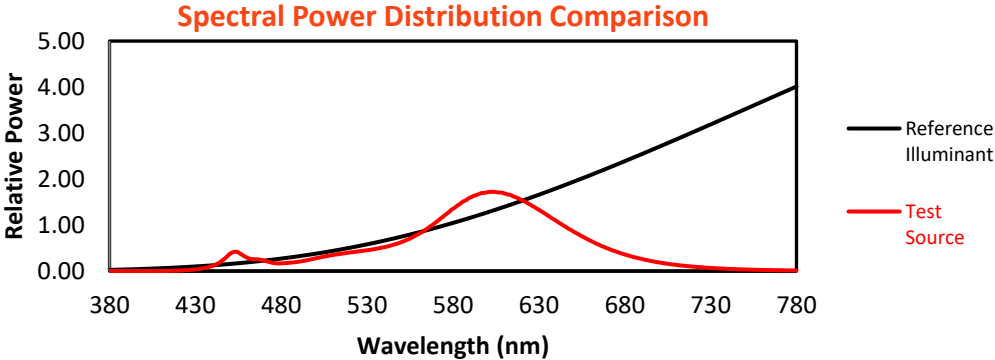
Melanopic Lumens: NR

M/P: 1.71

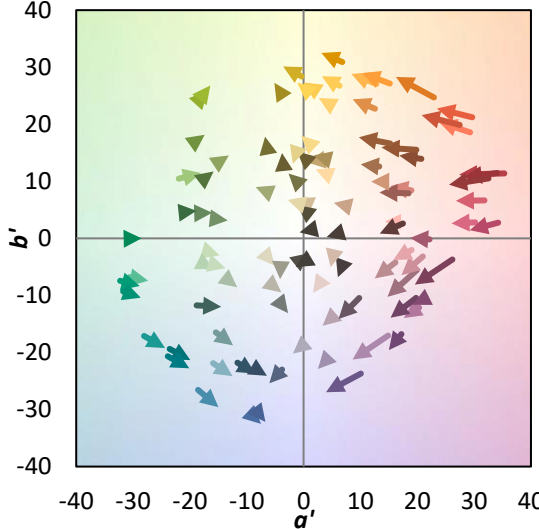
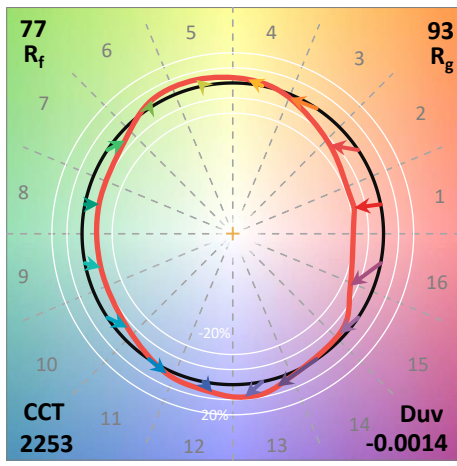
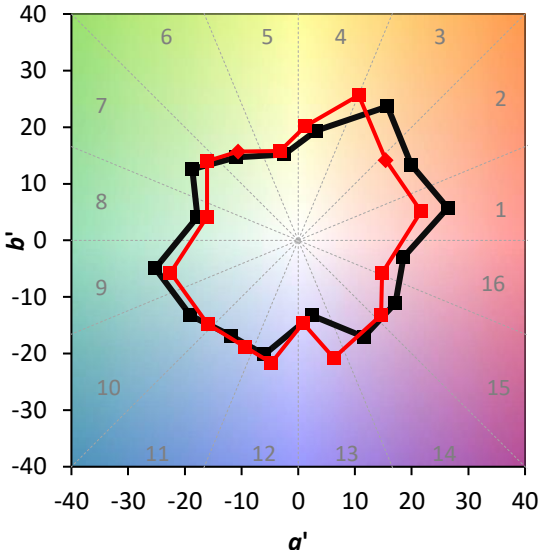
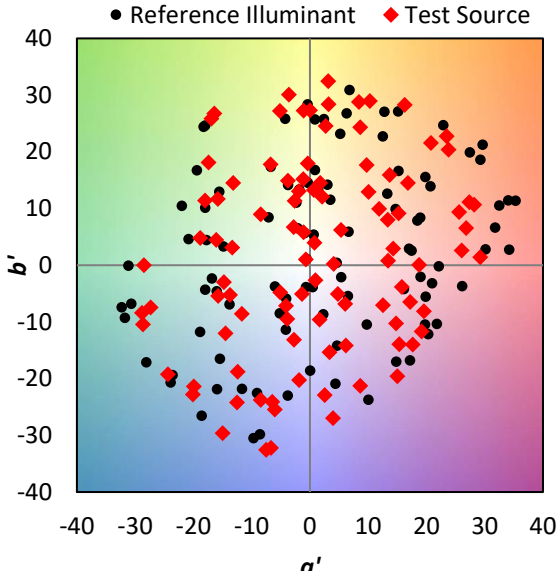
λ (nm)	Power W <sup>2</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>2</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>2</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>2</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>2</sup> /nm	Lumens (φ/nm)
360	0	NR	490	117	NR	620	896	NR	750	20	NR	880	0	NR
365	0	NR	495	137	NR	625	838	NR	755	17	NR	885	0	NR
370	0	NR	500	160	NR	630	774	NR	760	14	NR	890	0	NR
375	0	NR	505	183	NR	635	704	NR	765	12	NR	895	0	NR
380	0	NR	510	202	NR	640	635	NR	770	10	NR	900	0	NR
385	0	NR	515	219	NR	645	565	NR	775	9	NR	905	0	NR
390	0	NR	520	235	NR	650	501	NR	780	7	NR	910	0	NR
395	0	NR	525	249	NR	655	440	NR	785	6	NR	915	0	NR
400	0	NR	530	263	NR	660	383	NR	790	5	NR	920	0	NR
405	0	NR	535	281	NR	665	332	NR	795	5	NR	925	0	NR
410	1	NR	540	302	NR	670	286	NR	800	4	NR	930	0	NR
415	3	NR	545	331	NR	675	245	NR	805	3	NR	935	0	NR
420	6	NR	550	366	NR	680	210	NR	810	3	NR	940	0	NR
425	12	NR	555	411	NR	685	178	NR	815	3	NR	945	0	NR
430	21	NR	560	469	NR	690	152	NR	820	2	NR	950	0	NR
435	38	NR	565	536	NR	695	129	NR	825	2	NR	955	0	NR
440	66	NR	570	614	NR	700	109	NR	830	2	NR	960	0	NR
445	122	NR	575	701	NR	705	92	NR	835	1	NR	965	0	NR
450	215	NR	580	785	NR	710	77	NR	840	1	NR	970	0	NR
455	236	NR	585	863	NR	715	66	NR	845	1	NR	975	0	NR
460	170	NR	590	928	NR	720	55	NR	850	1	NR	980	0	NR
465	148	NR	595	971	NR	725	47	NR	855	1	NR	985	0	NR
470	132	NR	600	994	NR	730	40	NR	860	1	NR	990	0	NR
475	104	NR	605	996	NR	735	33	NR	865	1	NR	995	0	NR
480	97	NR	610	979	NR	740	28	NR	870	1	NR	1000	0	NR
485	105	NR	615	943	NR	745	24	NR	875	0	NR			

**Summary**

$R_f = 76.9$   
 $R_g = 92.7$   
 $CIE R_a = 70.6$   
 $R_9 = -36.0$



**Color Vector Graphics**



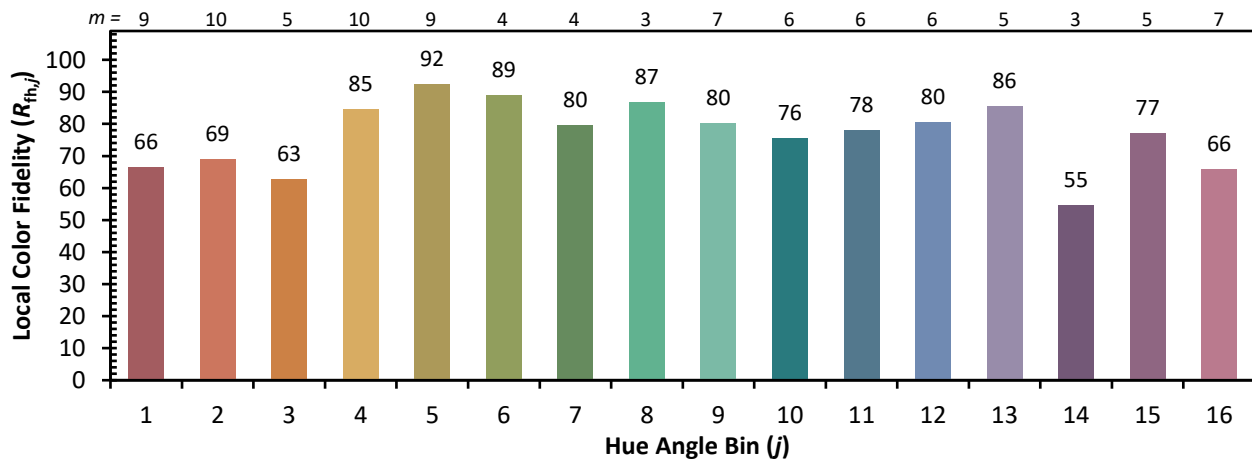
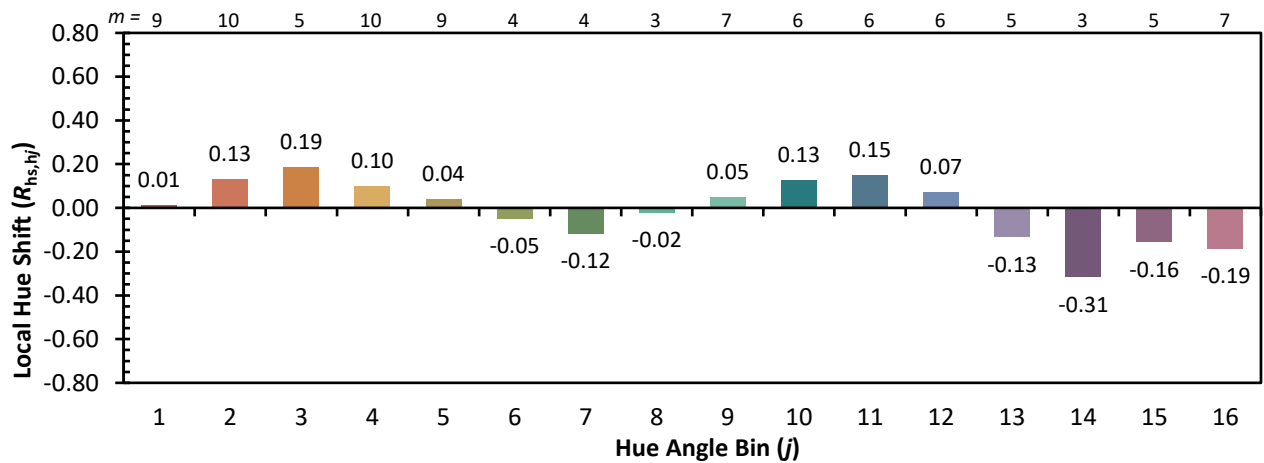
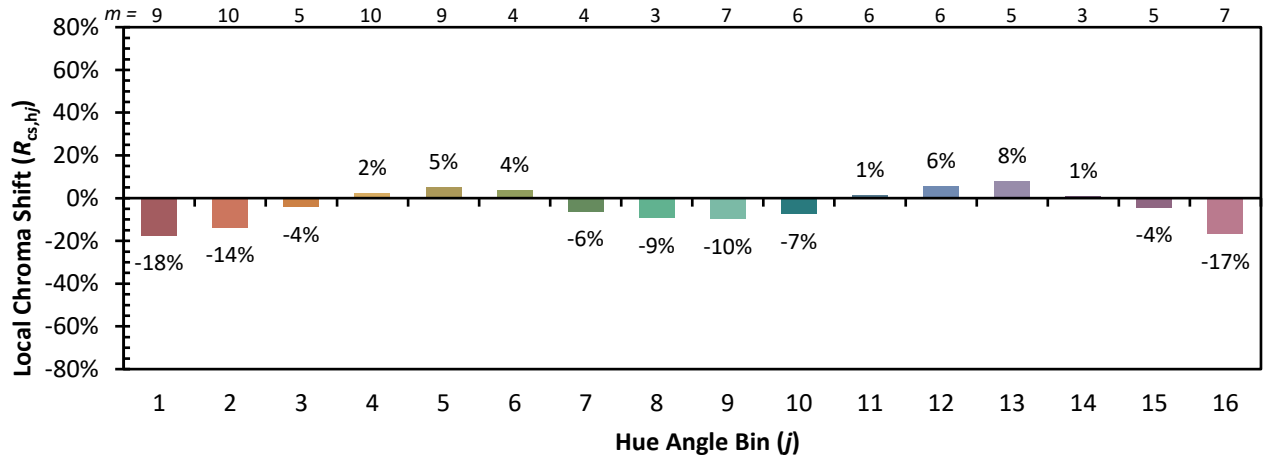


**Individual Sample Fidelity Index ( $R_{f,i}$ )**

CES01 = 87	CES26 = 76	CES51 = 88	CES76 = 78
CES02 = 65	CES27 = 94	CES52 = 85	CES77 = 75
CES03 = 32	CES28 = 93	CES53 = 80	CES78 = 79
CES04 = 72	CES29 = 81	CES54 = 86	CES79 = 82
CES05 = 51	CES30 = 91	CES55 = 83	CES80 = 81
CES06 = 52	CES31 = 83	CES56 = 77	CES81 = 51
CES07 = 44	CES32 = 75	CES57 = 75	CES82 = 92
CES08 = 42	CES33 = 88	CES58 = 76	CES83 = 88
CES09 = 29	CES34 = 88	CES59 = 84	CES84 = 90
CES10 = 79	CES35 = 94	CES60 = 91	CES85 = 65
CES11 = 62	CES36 = 90	CES61 = 82	CES86 = 48
CES12 = 68	CES37 = 97	CES62 = 91	CES87 = 76
CES13 = 45	CES38 = 98	CES63 = 86	CES88 = 78
CES14 = 75	CES39 = 97	CES64 = 70	CES89 = 61
CES15 = 72	CES40 = 94	CES65 = 71	CES90 = 80
CES16 = 48	CES41 = 95	CES66 = 71	CES91 = 80
CES17 = 51	CES42 = 89	CES67 = 70	CES92 = 51
CES18 = 57	CES43 = 80	CES68 = 74	CES93 = 68
CES19 = 74	CES44 = 99	CES69 = 84	CES94 = 44
CES20 = 68	CES45 = 83	CES70 = 72	CES95 = 66
CES21 = 88	CES46 = 81	CES71 = 75	CES96 = 75
CES22 = 81	CES47 = 88	CES72 = 89	CES97 = 76
CES23 = 92	CES48 = 73	CES73 = 68	CES98 = 72
CES24 = 92	CES49 = 82	CES74 = 85	CES99 = 63
CES25 = 73	CES50 = 87	CES75 = 80	



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)