

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: P868971

Luminaire Tested: **EMM2-HSN-SA1B-722-U-T3-HSS**

Issue Date: 08/22/2024



**Test Information**

Test Method: LM-79-08  
Report Number: P868971  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 08/22/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: EMM2-HSN-SA1B-722-U-T3-HSS  
Description: EPIC MODERN SHORT HOUSING DISCRETE LED ARRAYS 60W 70CRI 2200K  
FIXTURE w/ TYPE III DISTRIBUTION OPTIC AND HOUSE SIDE SHIELD  
Light Source: (10) 2200K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

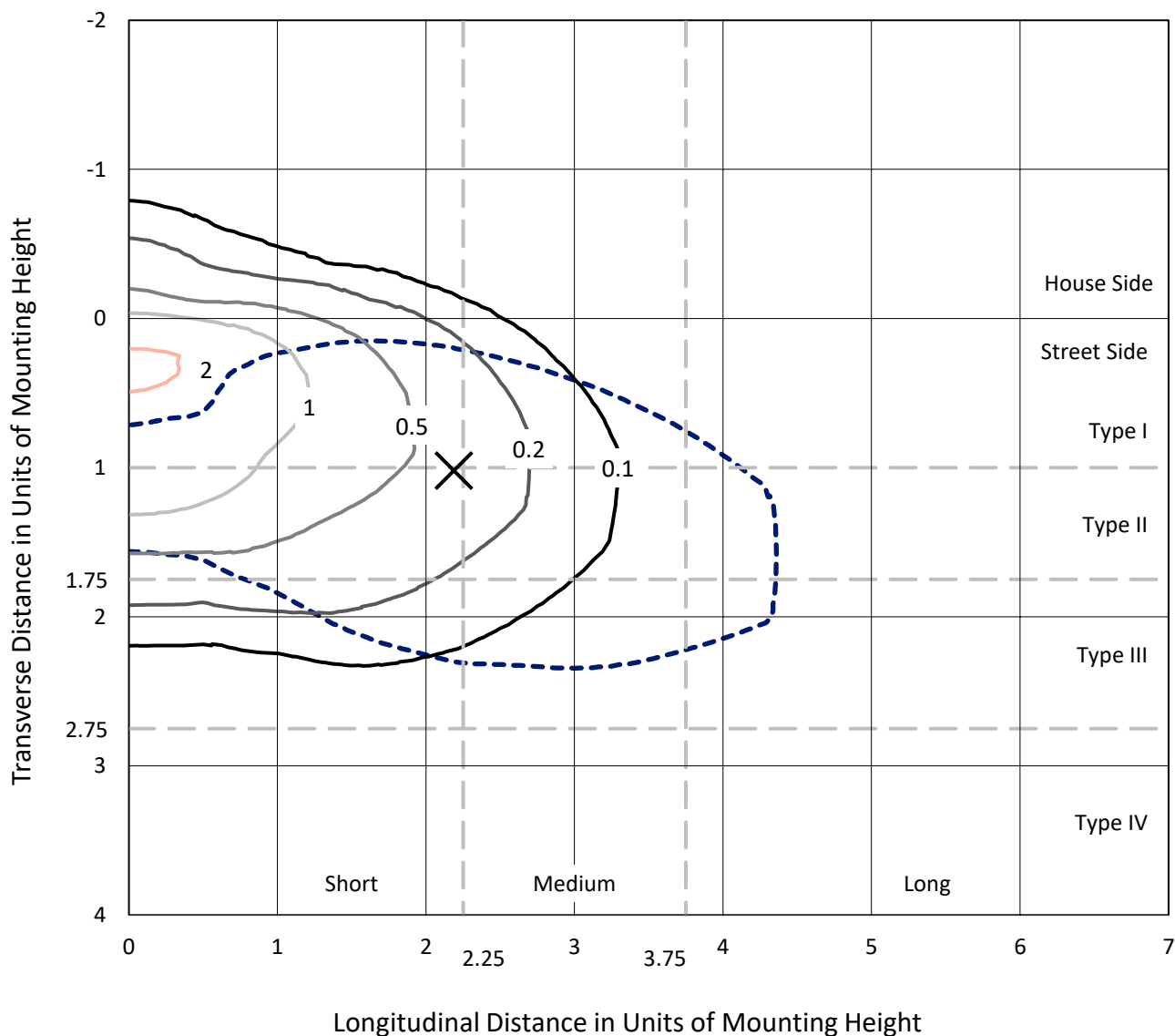
Lumens per Lamp: N/A  
Luminaire Lumens: 3759.3 lumens  
Efficiency: N/A  
Efficacy: 85.4 lumens/watt  
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B0 - U0 - G1

Input Watts (W): 44  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: 0.99  
Total Harmonic Distortion (THDi): 6.91%  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT

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### Iso-Footcandle Lines of Horizontal Illumination

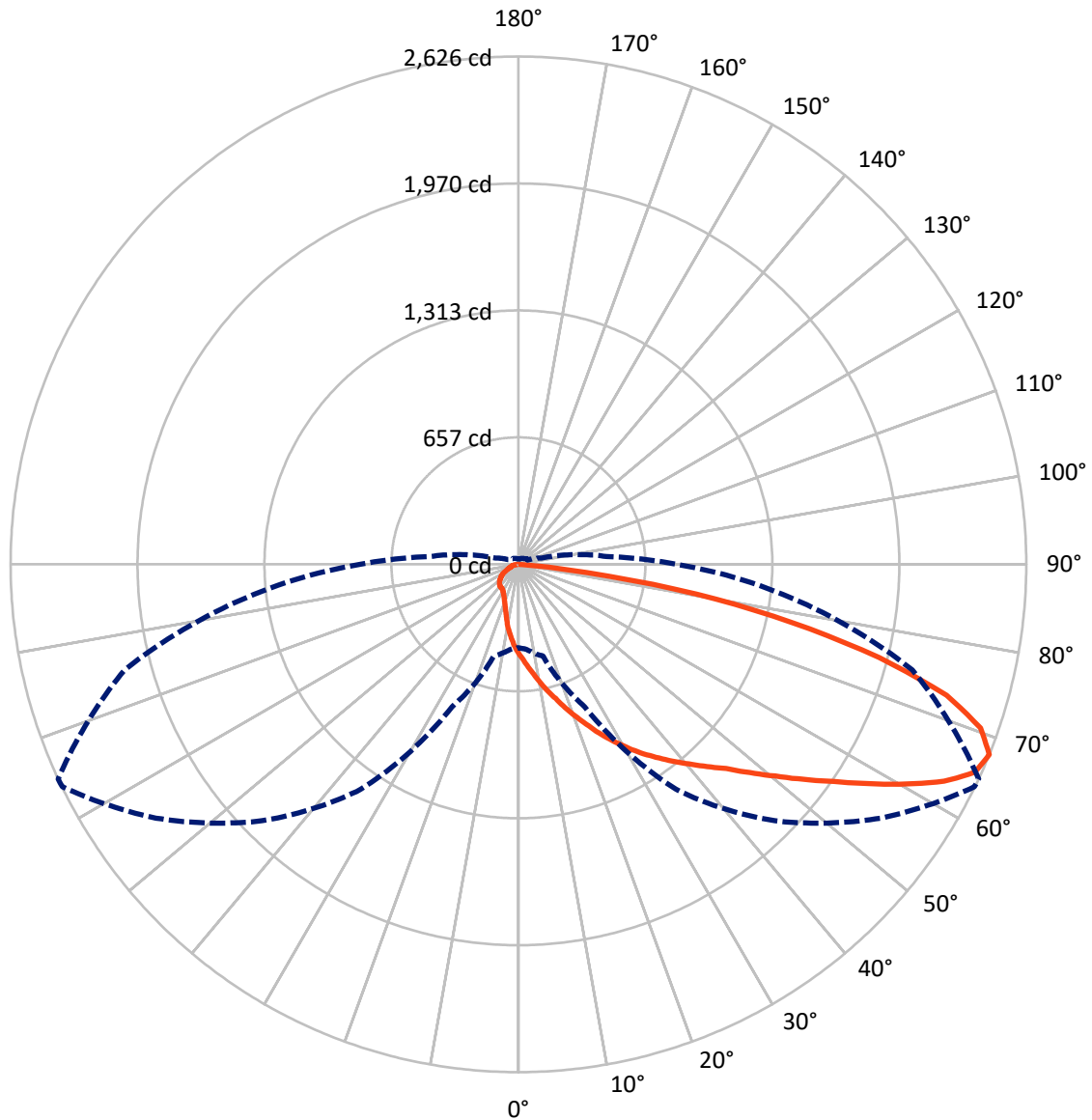
✕ Max cd  
 - - - 1/2 Max cd



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

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### Luminous Intensity Polar Plot



— Vertical Plane Through 65-Deg Lateral    - - - Horizontal Cone Through 67.5-Deg Vertical

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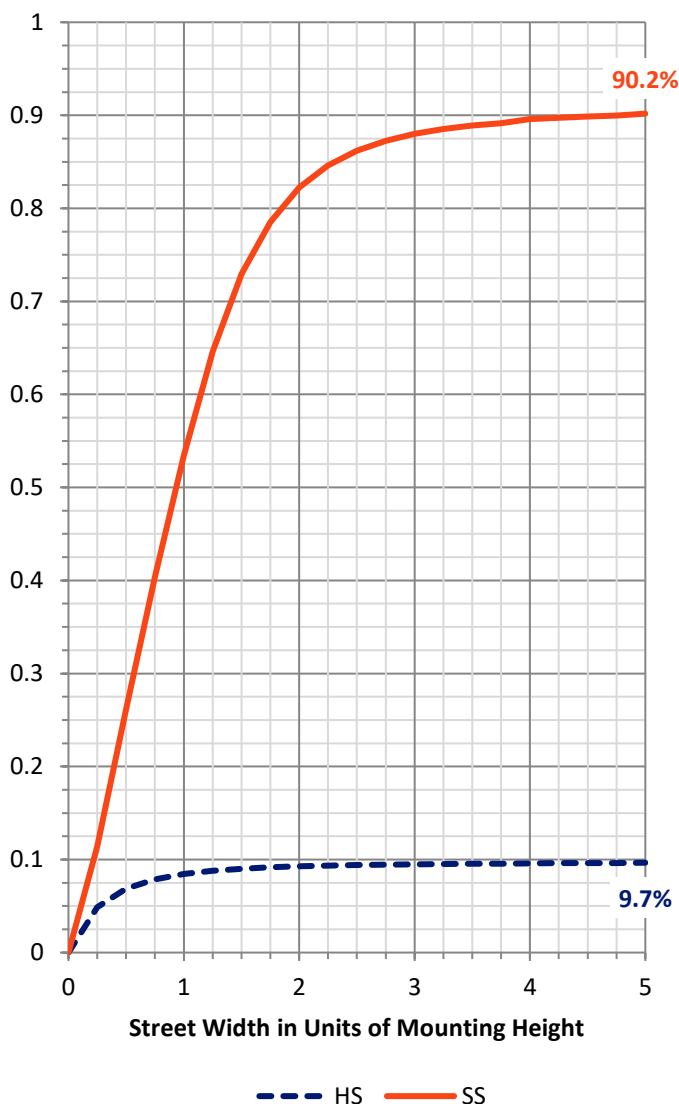
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	365.9	0.0	365.9
	% Fixture	9.7	0.0	9.7
<b>Street Side</b>	Lumens	3393.4	0.0	3393.4
	% Fixture	90.3	0.0	90.3
<b>Total</b>	Lumens	3759.3	0.0	3759.3
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	45.5	1.2
10°-20°	150.9	4.0
20°-30°	274.5	7.3
30°-40°	424.9	11.3
40°-50°	642.3	17.1
50°-60°	835.6	22.2
60°-70°	824.3	21.9
70°-80°	501.8	13.3
80°-90°	59.6	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°	3759.3	100.0
0°-180°	3759.3	100.0

**Coefficient of Utilization**

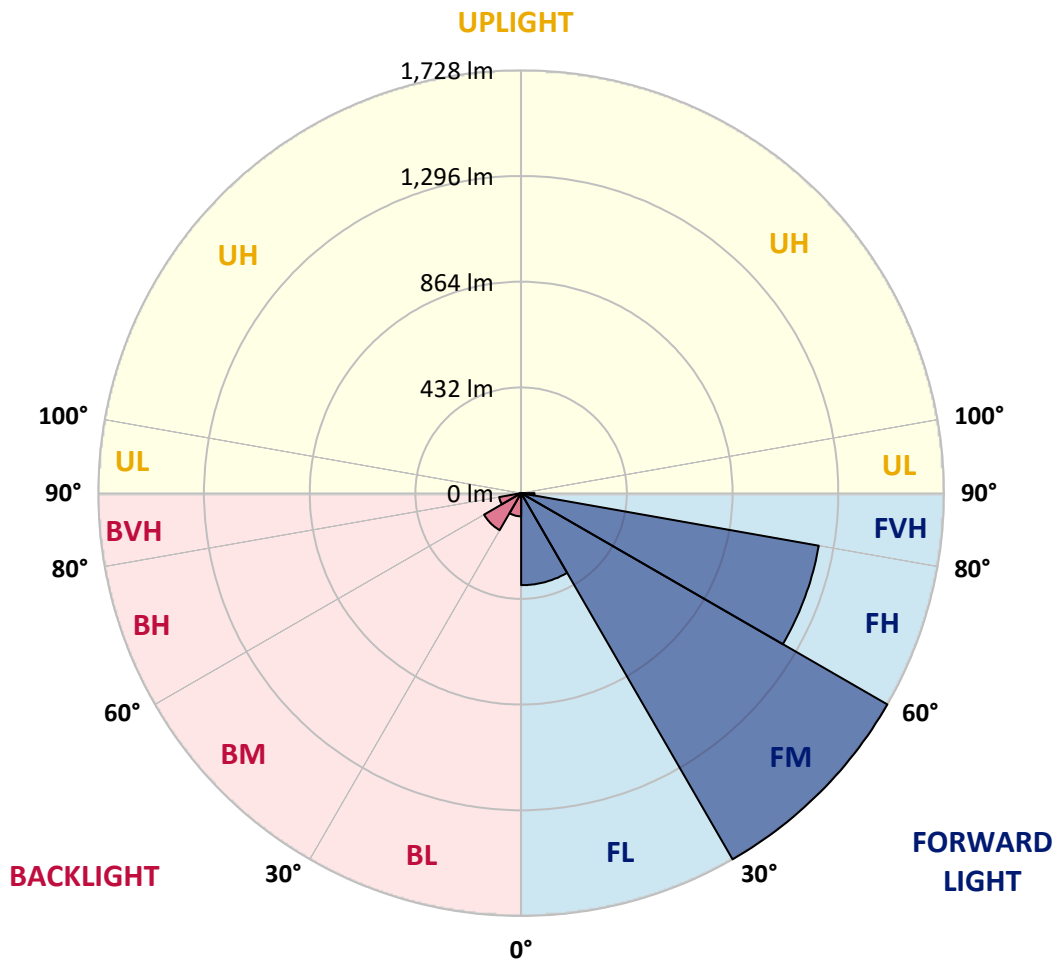


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	376.2	10.0			
FM (30°-60°)	1727.8	46.0			
FH (60°-80°)	1235.0	32.9			G1/1800
FVH (80°-90°)	54.5	1.5			G1/100
BL (0°-30°)	94.7	2.5	B0/110		
BM (30°-60°)	175.0	4.7	B0/220		
BH (60°-80°)	91.1	2.4	B0/110		G0/110
BVH (80°-90°)	5.1	0.1			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 Short





REPORT NUMBER: P868971

CATALOG NUMBER: EMM2-HSN-SA1B-722-U-T3-HSS

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	64°	65°	75°	85°
0°	464.5	464.5	464.5	464.5	464.5	464.5	464.5	464.5	464.5	464.5	464.5
2.5°	542.8	538.6	541.8	534.3	525.7	519.2	506.4	495.6	494.6	483.8	472.0
5°	646.9	633.0	634.0	619.0	600.8	581.5	561.1	534.3	534.3	508.5	481.7
7.5°	740.2	738.1	728.4	704.8	683.4	653.3	615.8	581.5	574.0	534.3	492.4
10°	830.4	827.1	818.6	800.3	763.8	730.6	683.4	631.9	622.2	565.4	505.3
12.5°	902.2	903.3	893.7	878.6	846.5	806.8	744.5	680.2	671.6	595.4	518.2
15°	965.5	964.5	962.3	949.4	918.3	881.9	808.9	733.8	719.9	627.6	531.0
17.5°	1013.8	1011.7	1007.4	996.6	981.6	946.2	876.5	790.7	778.9	665.1	546.1
20°	1027.8	1026.7	1026.7	1034.2	1027.8	1006.3	944.1	849.7	836.8	704.8	566.4
22.5°	1053.5	1052.4	1051.4	1058.9	1063.2	1061.0	1007.4	909.7	897.9	751.0	592.2
25°	1086.8	1084.6	1081.4	1088.9	1094.3	1107.1	1070.7	980.6	966.6	804.6	617.9
27.5°	1130.7	1132.9	1128.6	1127.5	1127.5	1135.0	1126.5	1043.8	1031.0	856.1	648.0
30°	1188.7	1191.9	1184.4	1179.0	1169.4	1168.3	1170.4	1114.7	1096.4	911.9	679.1
32.5°	1245.5	1248.8	1244.5	1237.0	1212.3	1202.6	1211.2	1174.7	1162.9	973.0	718.8
35°	1291.7	1299.2	1299.2	1284.2	1249.8	1244.5	1258.4	1233.7	1225.2	1044.9	766.0
37.5°	1353.9	1358.2	1353.9	1326.0	1283.1	1289.5	1311.0	1296.0	1290.6	1122.2	821.8
40°	1486.9	1492.3	1464.4	1397.9	1329.2	1336.7	1374.3	1365.7	1357.1	1198.3	873.3
42.5°	1672.5	1659.6	1654.3	1506.2	1400.0	1395.7	1442.9	1431.1	1430.1	1275.6	920.5
45°	1794.8	1799.1	1772.3	1631.8	1549.1	1468.7	1519.1	1514.8	1506.2	1353.9	977.3
47.5°	1879.6	1869.9	1803.4	1735.8	1751.9	1564.2	1603.9	1614.6	1609.2	1442.9	1047.1
50°	1915.0	1905.3	1861.3	1816.3	1835.6	1673.6	1690.8	1726.2	1720.8	1533.1	1106.1
52.5°	1871.0	1859.2	1862.4	1874.2	1864.6	1759.4	1798.0	1853.8	1847.4	1638.2	1174.7
55°	1591.0	1622.1	1742.3	1862.4	1859.2	1824.9	1912.8	1994.4	1981.5	1747.6	1233.7
57.5°	1283.1	1300.3	1452.6	1777.7	1842.0	1879.6	2043.7	2144.6	2140.3	1857.0	1287.4
60°	1020.2	1038.5	1154.3	1601.7	1802.3	1936.4	2177.8	2310.8	2306.6	1967.5	1326.0
62.5°	811.0	811.0	914.0	1348.5	1726.2	1969.7	2284.0	2478.2	2470.7	2056.6	1335.7
65°	583.6	591.1	668.4	1084.6	1602.8	1961.1	2335.5	2597.3	2593.0	2107.0	1315.3
67.5°	431.3	439.9	491.3	813.2	1420.4	1875.3	2288.3	2624.1	2626.3	2108.1	1248.8
70°	336.9	339.0	377.6	565.4	1164.0	1684.3	2111.3	2535.1	2535.1	2055.5	1150.1
72.5°	256.4	258.5	291.8	385.1	857.2	1392.5	1846.3	2299.0	2315.1	1916.0	1004.2
75°	198.5	202.8	225.3	276.8	537.5	990.2	1517.0	1882.8	1926.8	1645.7	827.1
77.5°	153.4	157.7	175.9	202.8	313.3	610.4	1066.4	1407.5	1447.2	1296.0	638.3
80°	123.4	125.5	137.3	152.3	189.9	314.3	651.2	924.8	936.6	880.8	422.7
82.5°	56.9	61.2	74.0	83.7	94.4	145.9	277.9	342.2	357.2	349.7	173.8
85°	6.4	6.4	7.5	8.6	9.7	15.0	19.3	17.2	17.2	20.4	18.2
87.5°	0.0	0.0	0.0	1.1	2.1	2.1	3.2	3.2	3.2	3.2	3.2
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: EMM2-HSN-SA1B-722-U-T3-HSS

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	464.5	464.5	464.5	464.5	464.5	464.5	464.5	464.5	464.5	464.5	464.5
2.5°	465.6	458.1	444.1	432.3	421.6	410.9	405.5	392.7	389.4	391.6	384.1
5°	467.7	452.7	423.8	396.9	374.4	353.0	334.7	315.4	311.1	304.7	301.5
7.5°	471.0	448.4	403.4	361.5	327.2	296.1	273.6	258.5	246.7	243.5	242.5
10°	475.3	443.1	380.8	328.3	281.1	248.9	228.5	217.8	213.5	210.3	211.3
12.5°	478.5	437.7	359.4	290.7	244.6	215.6	206.0	197.4	195.3	194.2	194.2
15°	482.8	432.3	333.6	257.5	213.5	196.3	186.7	183.5	183.5	182.4	182.4
17.5°	488.1	428.1	312.2	231.7	195.3	179.2	174.9	170.6	170.6	170.6	169.5
20°	498.9	425.9	292.9	210.3	179.2	168.4	162.0	158.8	157.7	156.6	156.6
22.5°	509.6	425.9	271.4	194.2	168.4	156.6	150.2	147.0	145.9	145.9	145.9
25°	524.6	424.8	254.3	180.2	158.8	144.8	138.4	135.2	133.0	133.0	132.0
27.5°	541.8	424.8	239.2	169.5	148.0	134.1	126.6	123.4	120.2	120.2	119.1
30°	558.9	427.0	226.4	160.9	137.3	124.4	114.8	110.5	108.4	107.3	107.3
32.5°	581.5	433.4	217.8	154.5	127.7	114.8	105.1	100.8	98.7	97.6	97.6
35°	615.8	449.5	218.9	151.3	121.2	106.2	96.6	91.2	90.1	90.1	89.0
37.5°	652.3	464.5	222.1	149.1	114.8	99.8	90.1	84.8	83.7	83.7	83.7
40°	683.4	477.4	226.4	148.0	109.4	93.3	84.8	80.5	78.3	78.3	78.3
42.5°	714.5	484.9	227.4	144.8	106.2	88.0	80.5	76.2	74.0	75.1	75.1
45°	745.6	490.3	224.2	140.5	103.0	83.7	76.2	71.9	69.7	69.7	69.7
47.5°	783.2	502.1	218.9	134.1	100.8	80.5	71.9	67.6	66.5	66.5	66.5
50°	820.7	511.7	214.6	126.6	95.5	76.2	68.7	63.3	62.2	62.2	62.2
52.5°	851.8	516.0	209.2	116.9	90.1	71.9	64.4	59.0	56.9	56.9	56.9
55°	875.4	517.1	201.7	109.4	82.6	67.6	60.1	54.7	52.6	51.5	51.5
57.5°	894.7	516.0	194.2	101.9	76.2	62.2	54.7	50.4	47.2	46.1	46.1
60°	905.5	512.8	183.5	92.3	67.6	56.9	50.4	45.1	42.9	41.8	41.8
62.5°	899.0	504.2	168.4	77.2	61.2	51.5	46.1	41.8	38.6	37.5	37.5
65°	869.0	487.1	149.1	63.3	54.7	46.1	41.8	37.5	33.3	32.2	32.2
67.5°	816.4	458.1	123.4	53.6	50.4	41.8	37.5	33.3	30.0	27.9	27.9
70°	743.5	419.5	96.6	46.1	45.1	38.6	34.3	30.0	26.8	24.7	24.7
72.5°	639.4	356.2	71.9	39.7	39.7	35.4	31.1	27.9	24.7	22.5	22.5
75°	517.1	269.3	54.7	36.5	35.4	32.2	27.9	24.7	22.5	20.4	20.4
77.5°	377.6	179.2	45.1	33.3	33.3	29.0	25.7	22.5	20.4	19.3	19.3
80°	229.6	103.0	32.2	25.7	25.7	24.7	21.5	19.3	18.2	16.1	15.0
82.5°	93.3	39.7	17.2	12.9	12.9	11.8	7.5	6.4	6.4	6.4	5.4
85°	9.7	6.4	4.3	3.2	3.2	3.2	2.1	2.1	2.1	2.1	2.1
87.5°	3.2	3.2	2.1	2.1	2.1	2.1	1.1	1.1	1.1	1.1	1.1
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: 4π  
 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  
 Rf: 76.9  
 Rg: 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

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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 2200K 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	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			

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**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			

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**Melanopic Flux vs. Wavelength**



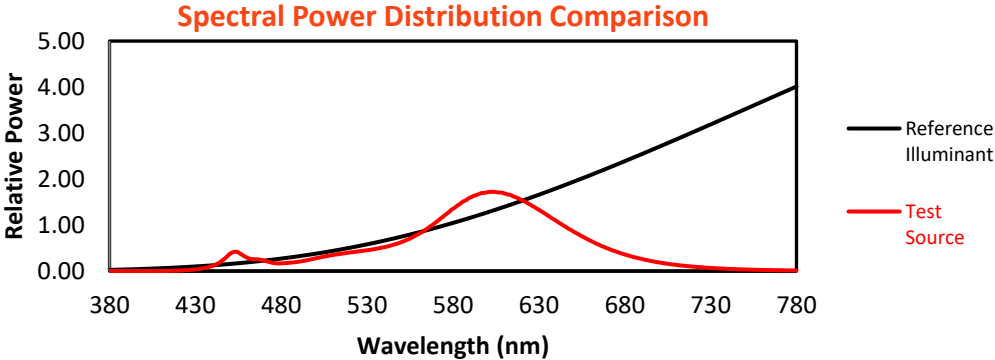
**Melanopic Lumens: NR**

**M/P: 1.71**

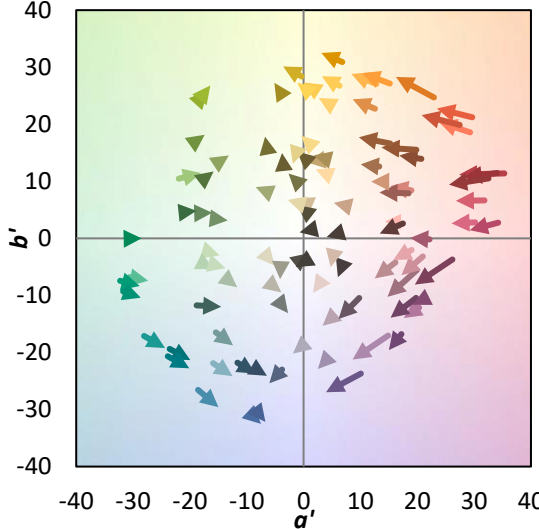
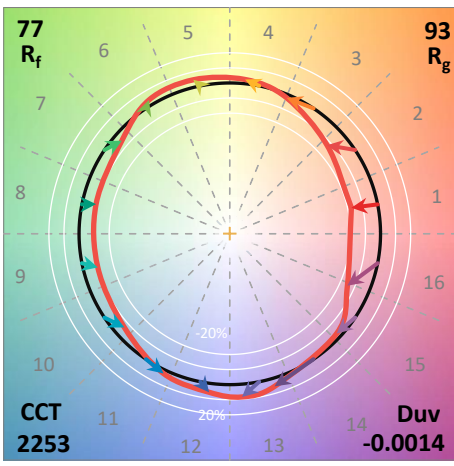
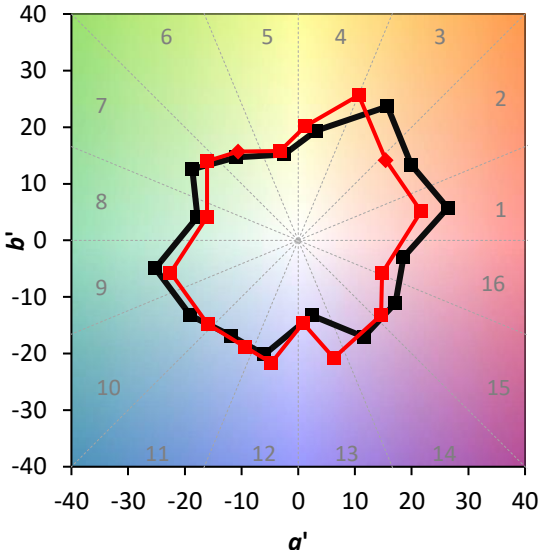
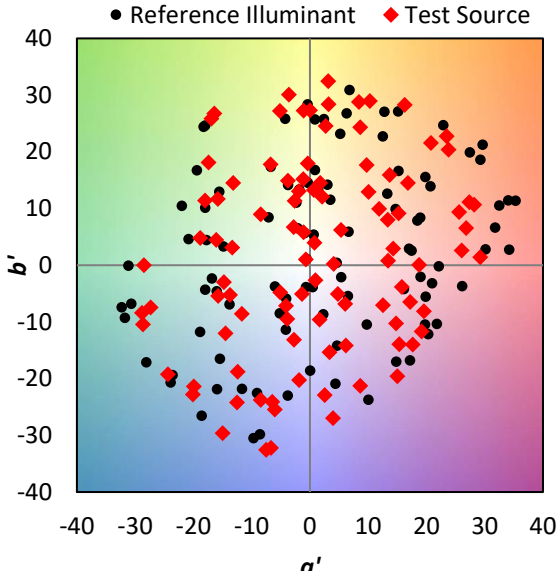
λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)
360	0	NR	490	117	NR	620	896	NR	750	20	NR	880	0	NR
365	0	NR	495	137	NR	625	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			

**Summary**

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



**Color Vector Graphics**



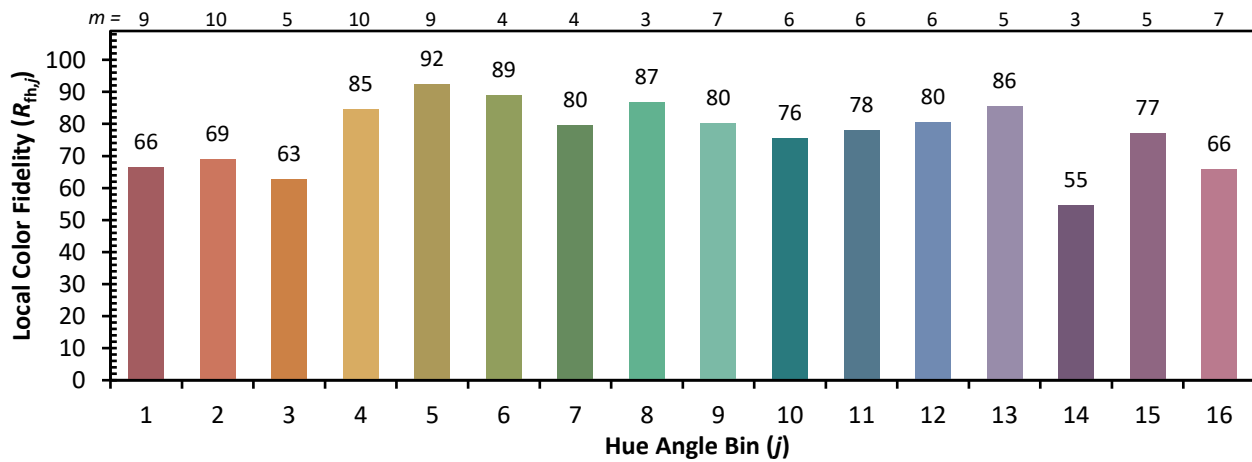
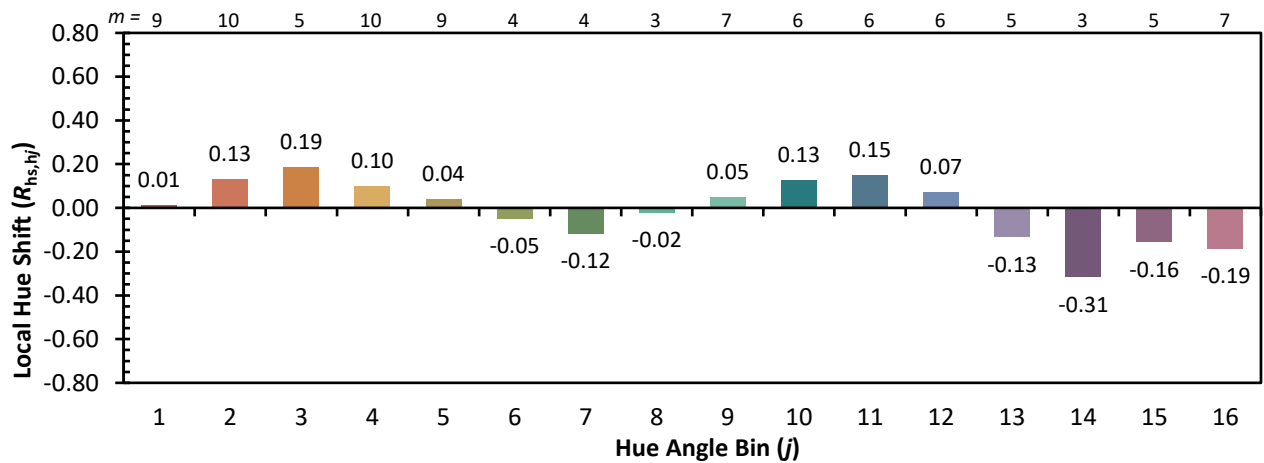
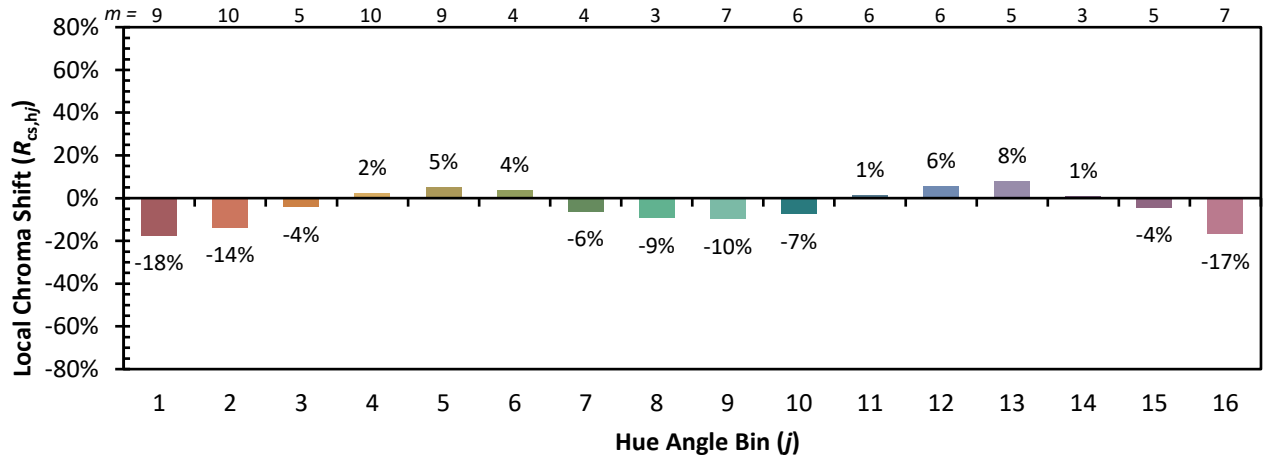


**Individual Sample Fidelity Index ( $R_{f,i}$ )**

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)