

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: P868797

Luminaire Tested: **EMM2-HSN-SA2A-722-U-T2R**

Issue Date: 08/22/2024



**Test Information**

Test Method: LM-79-08  
Report Number: P868797  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 08/22/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: EMM2-HSN-SA2A-722-U-T2R  
Description: EPIC MODERN SHORT HOUSING DISCRETE LED ARRAYS 70W 70CRI 2200K  
FITURE w/ TYPE II ROADWAY DISTRIBUTION OPTIC  
Light Source: (20) 2200K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

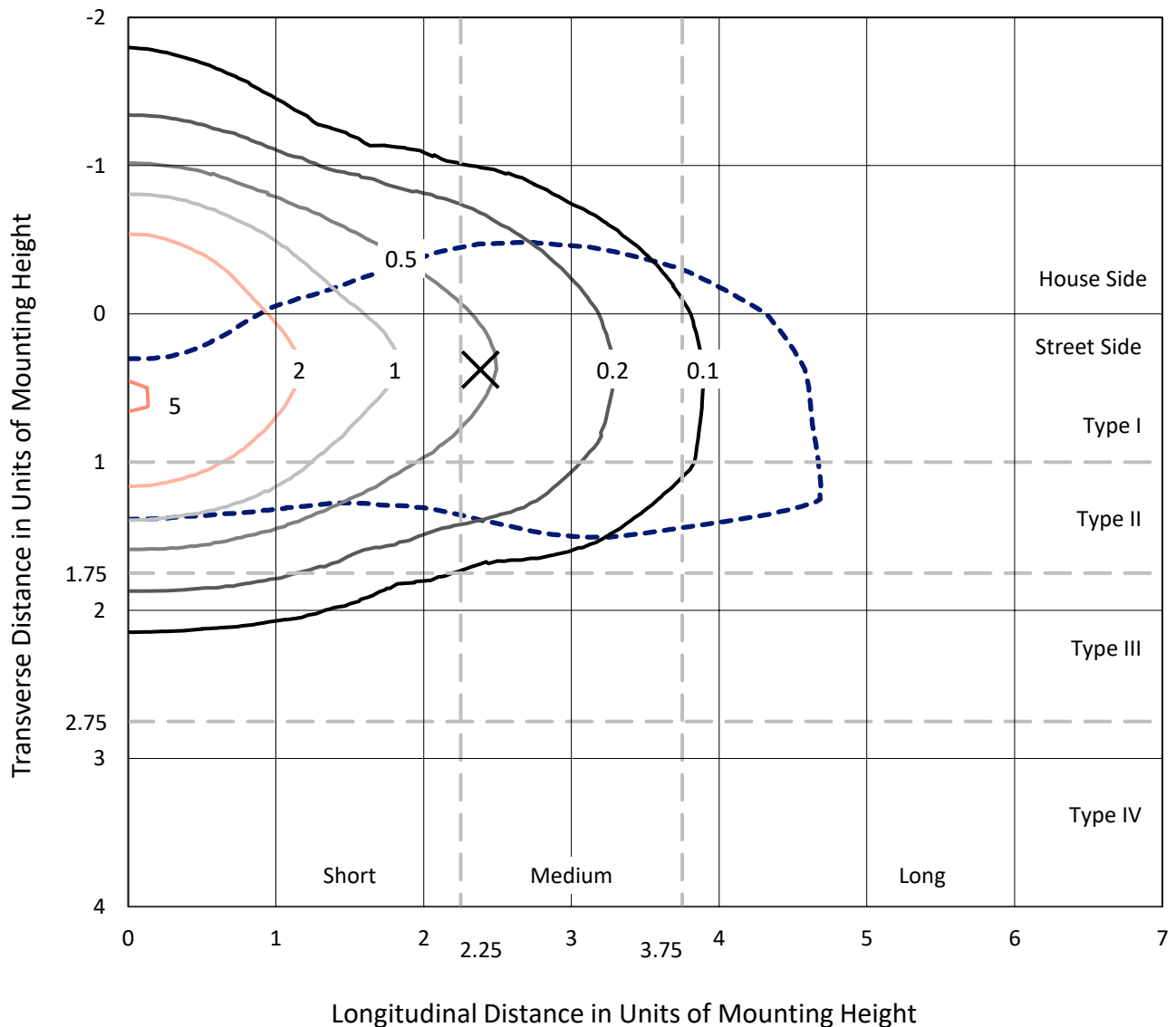
Lumens per Lamp: N/A  
Luminaire Lumens: 8080.4 lumens  
Efficiency: N/A  
Efficacy: 132.5 lumens/watt  
Luminous Opening: Rectangular (W 0.67' x L: 0.33' x H: 0')  
IES Classification: Type II - Medium  
BUG Rating: B2 - U0 - G2

Input Watts (W): 61  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: 0.99  
Total Harmonic Distortion (THDi): 9.89%  
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-SA2A-722-U-T2R

### Iso-Footcandle Lines of Horizontal Illumination

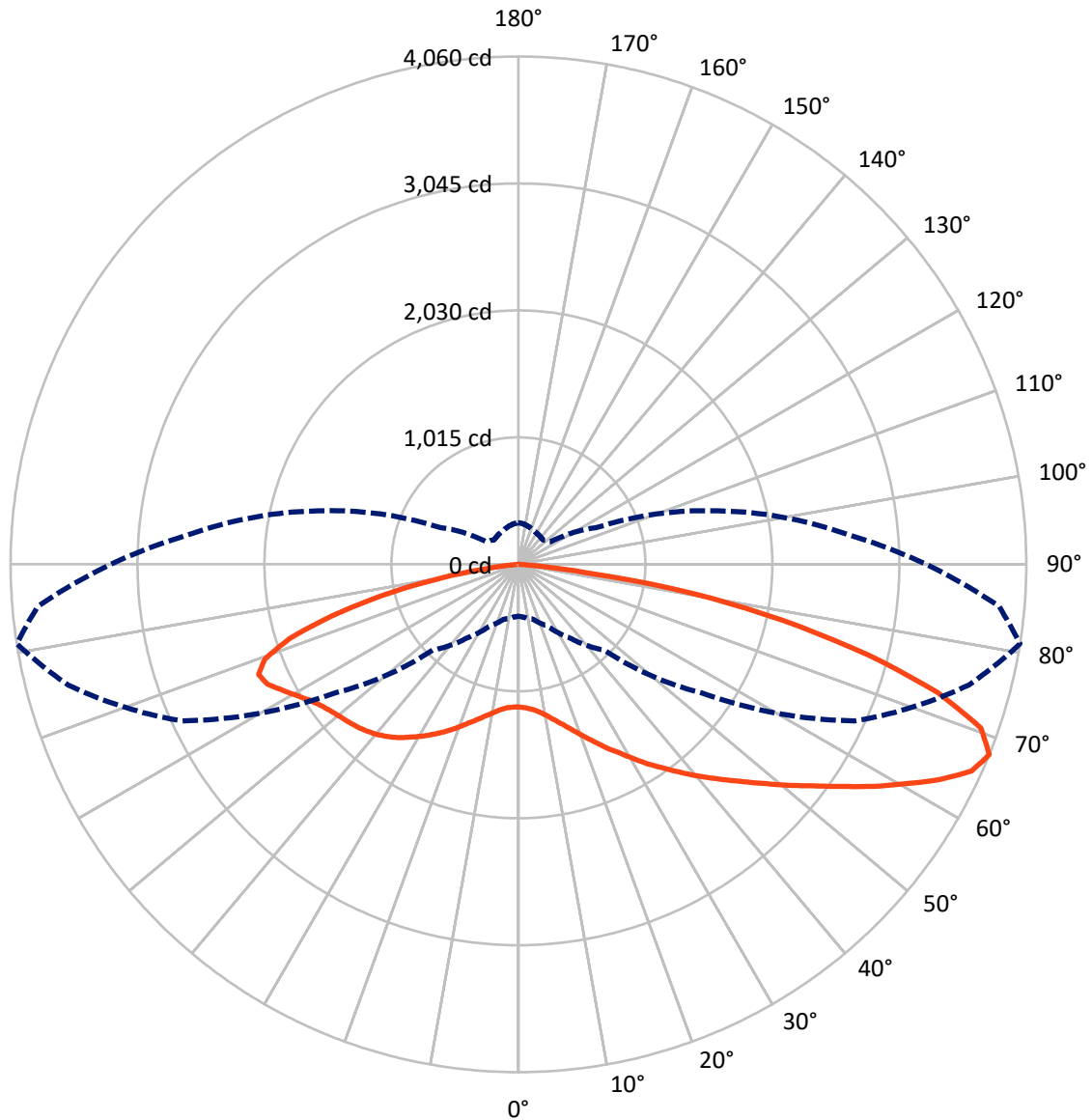
× Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 5.1 fc  
 Type II - Medium - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 81-Deg Lateral      - - - Horizontal Cone Through 67.5-Deg Vertical

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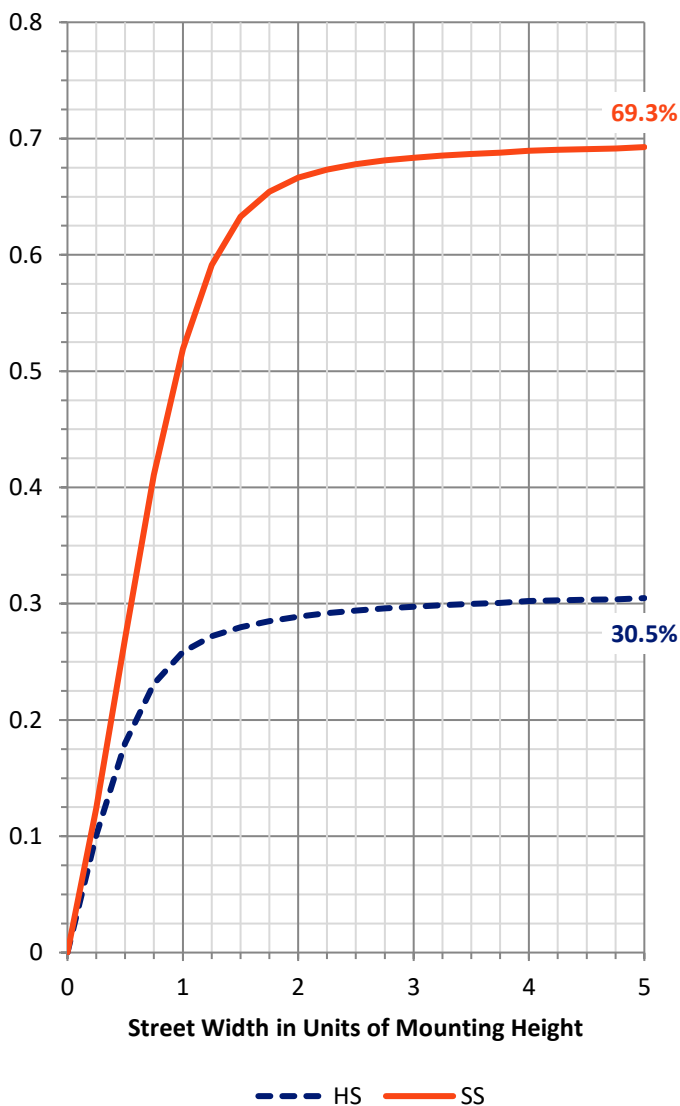
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2476.0	0.0	2476.0
	% Fixture	30.6	0.0	30.6
<b>Street Side</b>	Lumens	5604.4	0.0	5604.4
	% Fixture	69.4	0.0	69.4
<b>Total</b>	Lumens	8080.4	0.0	8080.4
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	116.3	1.4
10°-20°	413.0	5.1
20°-30°	822.5	10.2
30°-40°	1292.2	16.0
40°-50°	1602.5	19.8
50°-60°	1566.5	19.4
60°-70°	1317.4	16.3
70°-80°	837.1	10.4
80°-90°	113.0	1.4
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°	8080.4	100.0
0°-180°	8080.4	100.0

**Coefficient of Utilization**



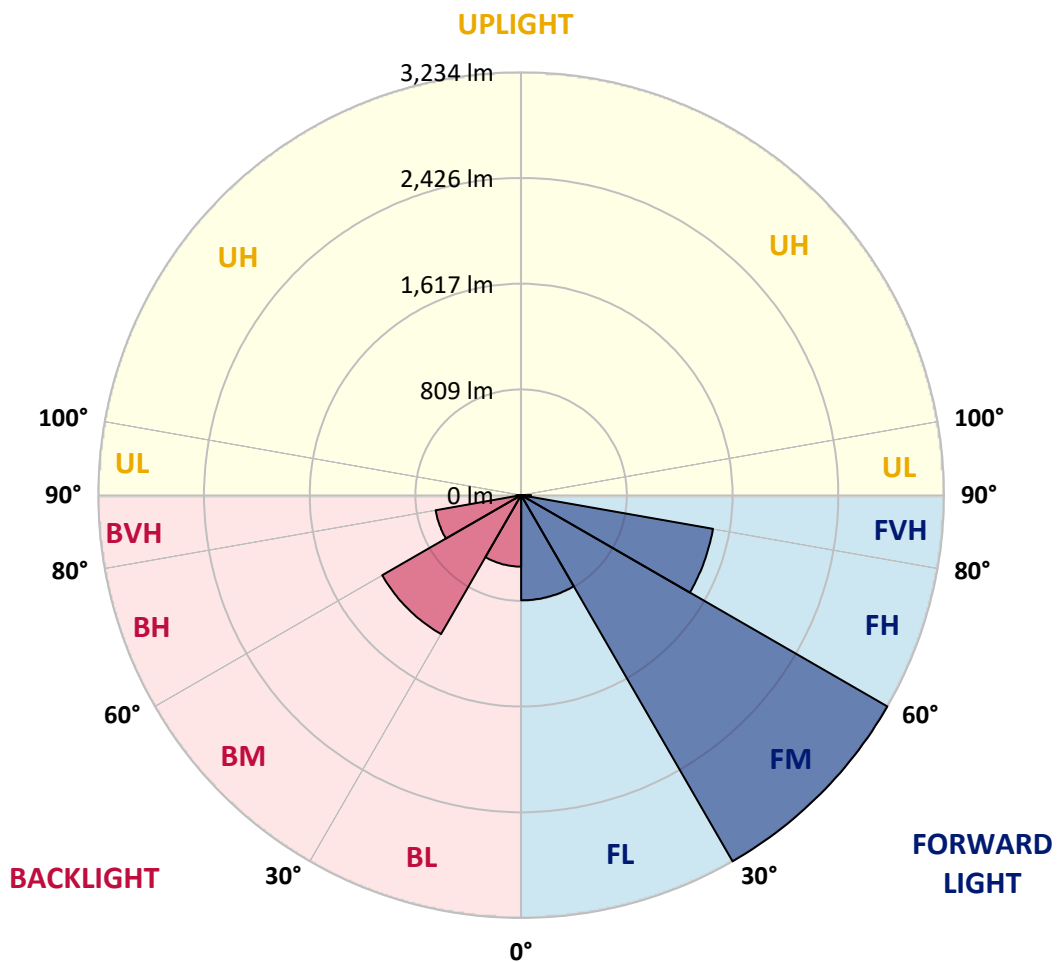
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	804.9	10.0			
FM (30°-60°)	3234.0	40.0			
FH (60°-80°)	1489.8	18.4			G1/1800
FVH (80°-90°)	75.7	0.9			G1/100
BL (0°-30°)	546.9	6.8	B2/1000		
BM (30°-60°)	1227.2	15.2	B2/2500		
BH (60°-80°)	664.7	8.2	B2/1000		G2/1000
BVH (80°-90°)	37.3	0.5			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G2**

Type II Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	81°	85°
0°	1140.8	1140.8	1140.8	1140.8	1140.8	1140.8	1140.8	1140.8	1140.8	1140.8	1140.8
2.5°	1180.9	1179.3	1179.3	1166.4	1166.4	1163.2	1164.8	1155.2	1150.4	1148.8	1147.2
5°	1265.8	1265.8	1256.2	1248.2	1232.1	1217.7	1204.9	1185.7	1171.3	1164.8	1160.0
7.5°	1394.0	1384.4	1381.2	1357.1	1323.5	1294.6	1269.0	1227.3	1200.1	1190.5	1184.1
10°	1551.0	1538.2	1514.1	1486.9	1443.6	1400.4	1349.1	1293.0	1248.2	1228.9	1220.9
12.5°	1712.8	1695.2	1661.5	1635.9	1579.8	1514.1	1442.0	1365.1	1302.6	1275.4	1261.0
15°	1890.7	1881.1	1841.0	1789.7	1724.0	1631.1	1541.4	1446.8	1366.7	1328.3	1304.2
17.5°	2082.9	2068.5	2025.3	1962.8	1869.8	1759.3	1655.1	1533.4	1440.4	1390.8	1363.5
20°	2272.0	2268.8	2204.7	2145.4	2036.5	1898.7	1764.1	1635.9	1518.9	1461.3	1426.0
22.5°	2483.5	2462.7	2406.6	2323.3	2193.5	2066.9	1908.3	1741.7	1603.9	1536.6	1496.5
25°	2703.0	2701.4	2632.5	2530.0	2377.8	2217.5	2046.1	1861.8	1704.8	1623.1	1570.2
27.5°	2975.4	2954.6	2866.5	2749.5	2573.2	2389.0	2190.3	1986.8	1800.9	1703.2	1639.1
30°	3214.1	3207.7	3108.4	2977.0	2779.9	2560.4	2345.7	2127.8	1914.7	1799.3	1728.8
32.5°	3408.0	3400.0	3315.1	3183.7	2972.2	2744.7	2497.9	2260.8	2028.5	1903.5	1810.6
35°	3569.8	3557.0	3468.9	3337.5	3154.9	2924.1	2661.4	2400.2	2153.4	2001.2	1913.1
37.5°	3633.9	3622.7	3550.6	3441.7	3273.4	3061.9	2808.8	2554.0	2278.4	2111.8	2012.4
40°	3609.9	3603.5	3552.2	3476.9	3348.7	3172.5	2949.8	2714.2	2419.4	2228.8	2110.2
42.5°	3496.1	3496.1	3464.1	3425.6	3361.6	3235.0	3074.7	2868.1	2555.6	2345.7	2203.1
45°	3335.9	3329.5	3318.3	3303.9	3294.3	3246.2	3156.5	3001.0	2706.2	2473.9	2315.3
47.5°	3122.8	3127.6	3119.6	3126.0	3166.1	3196.5	3191.7	3124.4	2860.0	2614.9	2425.8
50°	2787.9	2810.4	2836.0	2911.3	2993.0	3078.0	3156.5	3212.5	3041.1	2775.1	2554.0
52.5°	2373.0	2382.6	2451.5	2629.3	2804.0	2916.1	3065.1	3252.6	3201.3	2941.8	2704.6
55°	1861.8	1879.5	1983.6	2235.2	2546.0	2760.7	2935.4	3235.0	3364.8	3132.4	2880.9
57.5°	1334.7	1345.9	1512.5	1772.1	2177.5	2538.0	2787.9	3164.5	3496.1	3348.7	3061.9
60°	948.5	969.4	1076.7	1329.9	1719.2	2230.4	2653.4	3061.9	3617.9	3560.2	3299.1
62.5°	700.2	711.4	786.7	971.0	1291.4	1810.6	2478.7	2986.6	3698.0	3787.8	3536.2
65°	527.1	532.0	583.2	709.8	966.2	1334.7	2203.1	2972.2	3742.9	3981.6	3746.1
67.5°	415.0	423.0	455.0	541.6	719.4	971.0	1794.5	2962.6	3726.9	4060.1	3856.7
70°	349.3	350.9	374.9	423.0	538.4	698.6	1341.1	2818.4	3637.1	3922.3	3754.1
72.5°	302.8	302.8	314.0	352.5	432.6	528.7	913.3	2473.9	3409.6	3504.2	3398.4
75°	245.1	243.5	262.8	299.6	347.7	407.0	613.7	1873.0	2932.1	2884.1	2797.6
77.5°	213.1	211.5	227.5	259.6	286.8	325.3	419.8	1216.1	2307.3	2163.1	2108.6
80°	182.7	177.9	190.7	221.1	235.5	253.2	290.0	708.2	1507.7	1418.0	1352.3
82.5°	137.8	126.6	123.4	149.0	158.6	147.4	147.4	248.4	548.0	552.8	511.1
85°	11.2	12.8	16.0	19.2	27.2	30.4	32.0	52.9	81.7	78.5	80.1
87.5°	1.6	1.6	1.6	3.2	3.2	4.8	4.8	4.8	6.4	6.4	6.4
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: P868797

CATALOG NUMBER: EMM2-HSN-SA2A-722-U-T2R

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1140.8	1140.8	1140.8	1140.8	1140.8	1140.8	1140.8	1140.8	1140.8	1140.8	1140.8
2.5°	1145.6	1142.4	1139.2	1139.2	1139.2	1136.0	1134.4	1134.4	1132.8	1128.0	1126.4
5°	1156.8	1152.0	1147.2	1147.2	1147.2	1145.6	1144.0	1145.6	1144.0	1139.2	1137.6
7.5°	1179.3	1172.9	1166.4	1166.4	1169.7	1168.1	1168.1	1169.7	1168.1	1163.2	1161.6
10°	1211.3	1201.7	1198.5	1198.5	1201.7	1200.1	1198.5	1198.5	1196.9	1188.9	1192.1
12.5°	1246.6	1236.9	1233.7	1235.3	1233.7	1230.5	1232.1	1227.3	1225.7	1212.9	1211.3
15°	1291.4	1280.2	1273.8	1275.4	1270.6	1264.2	1257.8	1254.6	1248.2	1236.9	1233.7
17.5°	1342.7	1325.1	1317.1	1317.1	1307.4	1294.6	1285.0	1275.4	1265.8	1253.0	1249.8
20°	1392.4	1376.3	1363.5	1360.3	1341.1	1320.3	1302.6	1286.6	1275.4	1261.0	1257.8
22.5°	1454.9	1432.4	1414.8	1400.4	1371.5	1337.9	1310.7	1288.2	1272.2	1256.2	1251.4
25°	1520.6	1488.5	1459.7	1432.4	1392.4	1344.3	1305.8	1273.8	1253.0	1235.3	1232.1
27.5°	1586.2	1544.6	1502.9	1459.7	1398.8	1336.3	1281.8	1243.4	1216.1	1193.7	1190.5
30°	1656.7	1605.5	1539.8	1477.3	1397.2	1315.5	1246.6	1192.1	1160.0	1134.4	1131.2
32.5°	1728.8	1664.8	1575.0	1490.1	1389.2	1285.0	1195.3	1137.6	1097.6	1068.7	1060.7
35°	1809.0	1730.4	1607.1	1494.9	1366.7	1240.2	1140.8	1068.7	1022.2	993.4	987.0
37.5°	1890.7	1791.3	1627.9	1491.7	1334.7	1187.3	1070.3	996.6	942.1	902.1	895.7
40°	1974.0	1847.4	1640.7	1475.7	1289.8	1121.6	1004.6	914.9	836.4	799.5	781.9
42.5°	2050.9	1898.7	1647.1	1453.3	1240.2	1052.7	918.1	801.1	727.4	687.4	695.4
45°	2131.0	1946.8	1648.7	1426.0	1174.5	964.6	809.1	700.2	626.5	596.0	592.8
47.5°	2199.9	1986.8	1645.5	1387.6	1100.8	863.6	695.4	591.2	536.8	507.9	504.7
50°	2291.2	2031.7	1640.7	1342.7	1004.6	748.3	589.6	504.7	455.0	432.6	431.0
52.5°	2382.6	2081.3	1637.5	1280.2	903.7	639.3	493.5	426.2	392.6	381.3	378.1
55°	2502.7	2142.2	1639.1	1208.1	788.3	527.1	418.2	371.7	354.1	349.3	349.3
57.5°	2640.5	2220.7	1648.7	1128.0	668.1	435.8	363.7	342.9	341.3	344.5	346.1
60°	2807.2	2324.9	1668.0	1044.7	557.6	368.5	331.7	330.1	334.9	346.1	349.3
62.5°	2994.6	2438.6	1692.0	935.7	451.8	323.7	314.0	320.5	326.9	339.7	341.3
65°	3159.7	2566.8	1706.4	831.6	378.1	298.0	302.8	306.0	322.1	339.7	339.7
67.5°	3259.0	2659.8	1651.9	700.2	315.6	275.6	285.2	294.8	312.4	328.5	331.7
70°	3225.4	2629.3	1466.1	543.2	267.6	254.8	266.0	280.4	298.0	317.2	326.9
72.5°	2991.4	2413.0	1190.5	395.8	232.3	235.5	250.0	269.2	285.2	306.0	318.9
75°	2501.1	2014.0	858.8	285.2	203.5	216.3	238.7	254.8	266.0	270.8	272.4
77.5°	1898.7	1480.5	584.8	213.1	176.2	193.9	217.9	235.5	238.7	241.9	245.1
80°	1240.2	942.1	330.1	149.0	134.6	158.6	177.9	197.1	190.7	200.3	203.5
82.5°	523.9	411.8	150.6	73.7	62.5	67.3	72.1	64.1	59.3	59.3	51.3
85°	68.9	52.9	22.4	9.6	8.0	4.8	4.8	4.8	3.2	3.2	3.2
87.5°	6.4	6.4	4.8	4.8	3.2	3.2	1.6	3.2	1.6	1.6	1.6
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  
 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**

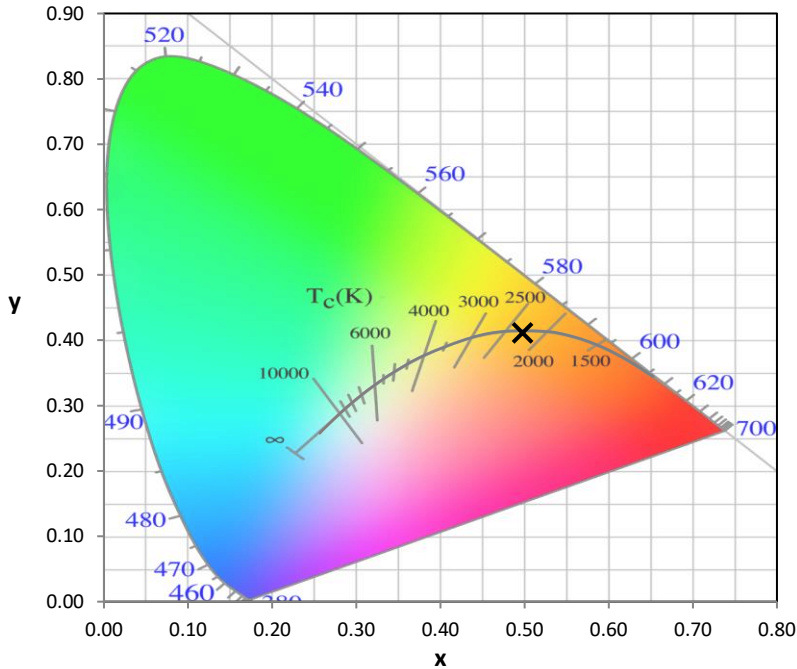
Stabilization Time: 29M  
 Operation Time: 1H 29M  
 Sphere Temperature (°C): 24.1

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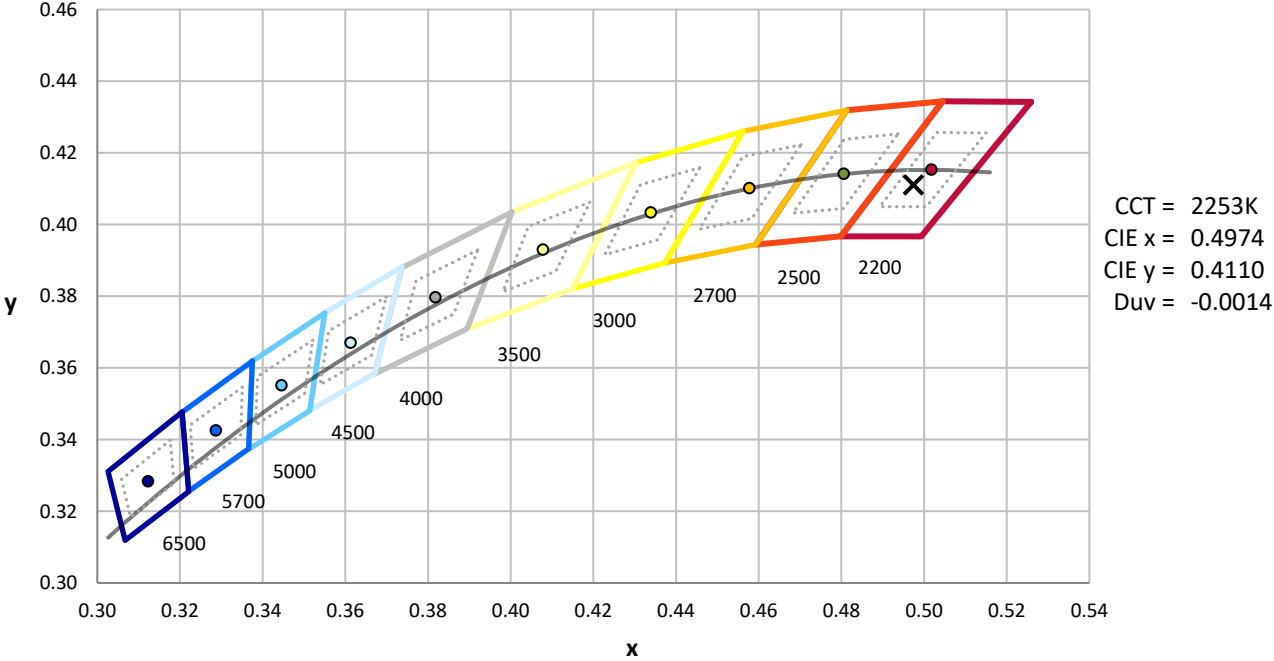
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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



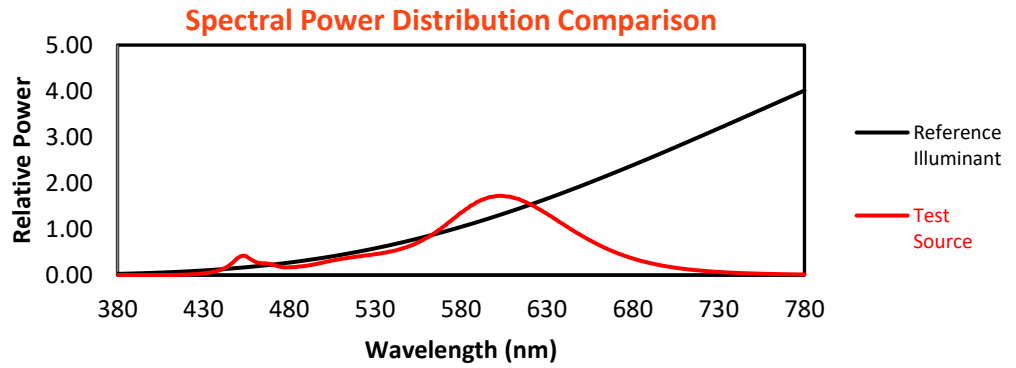
Melanopic Lumens: NR

M/P: 1.71

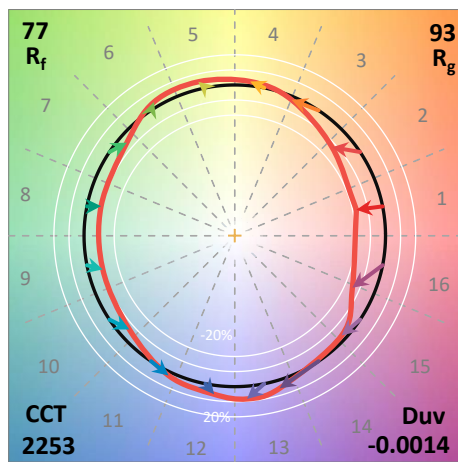
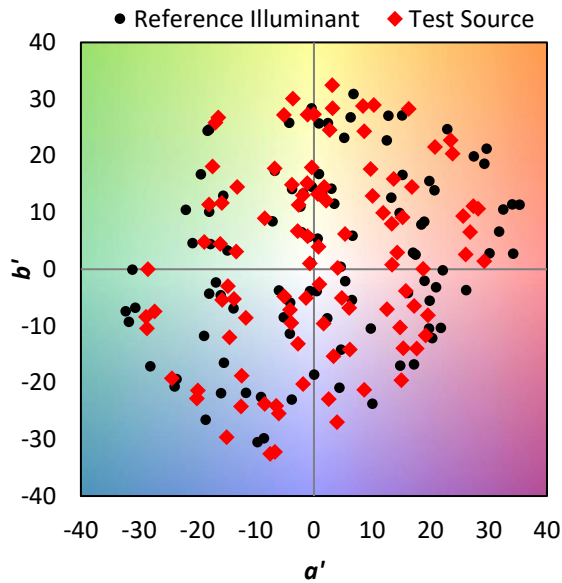
λ (nm)	Power W <sup>2</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>2</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>2</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>2</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>2</sup> /nm	Lumens (φ/nm)
360	0	NR	490	117	NR	620	896	NR	750	20	NR	880	0	NR
365	0	NR	495	137	NR	625	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**



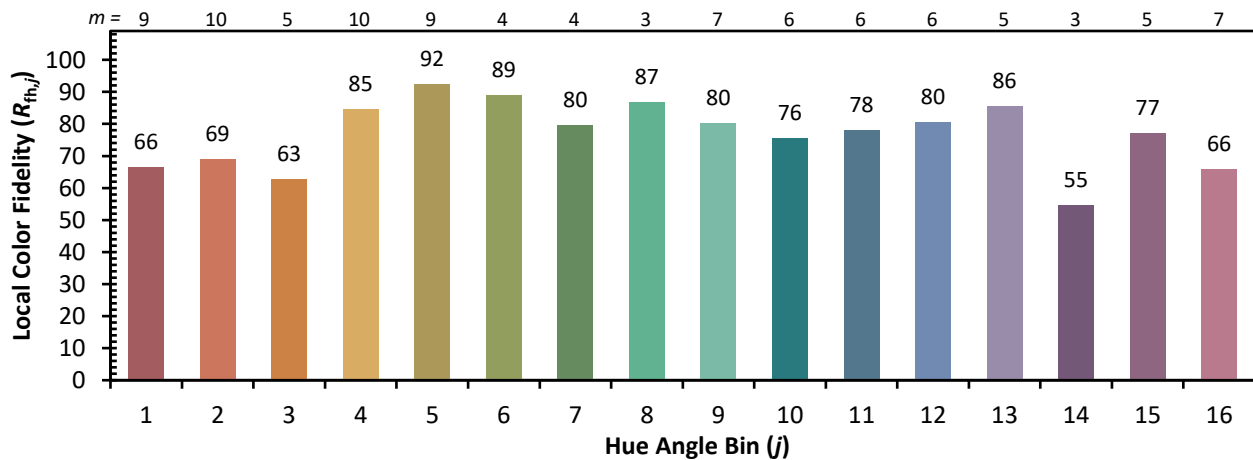


**Individual Sample Fidelity Index ( $R_{f,i}$ )**

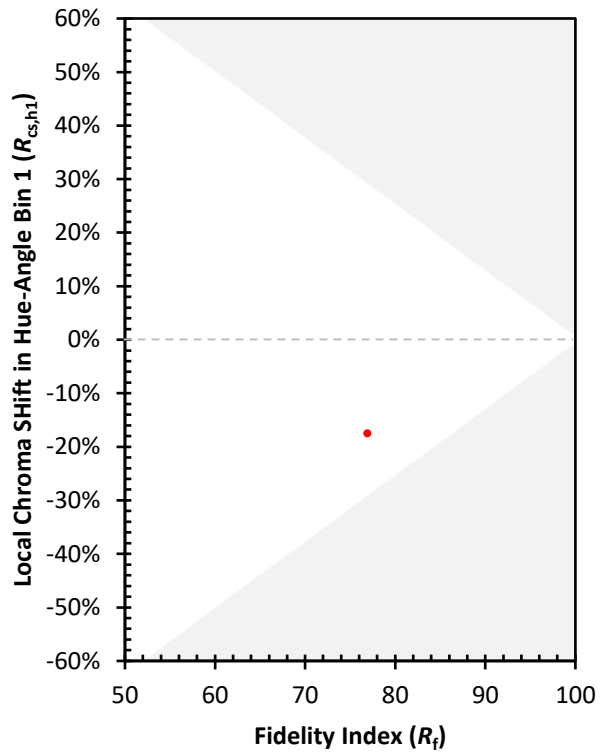
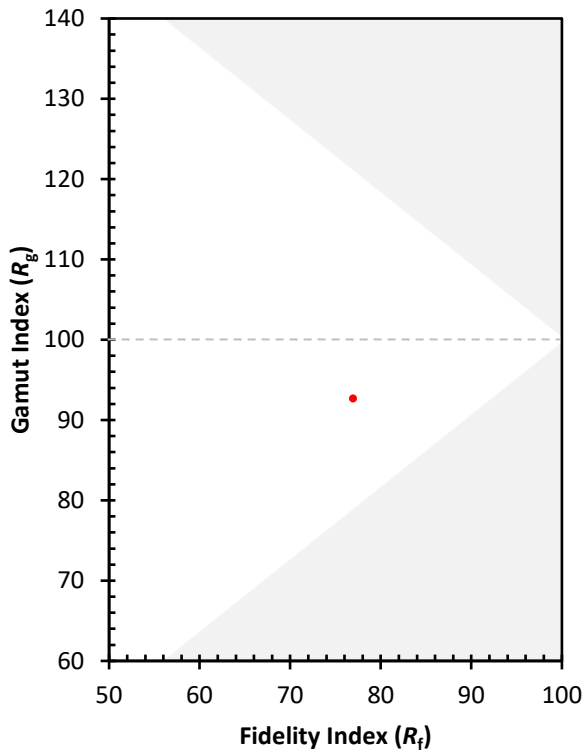
CES01 = 87	CES26 = 76	CES51 = 88	CES76 = 78
CES02 = 65	CES27 = 94	CES52 = 85	CES77 = 75
CES03 = 32	CES28 = 93	CES53 = 80	CES78 = 79
CES04 = 72	CES29 = 81	CES54 = 86	CES79 = 82
CES05 = 51	CES30 = 91	CES55 = 83	CES80 = 81
CES06 = 52	CES31 = 83	CES56 = 77	CES81 = 51
CES07 = 44	CES32 = 75	CES57 = 75	CES82 = 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)