

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: P868869

Luminaire Tested: **EMM2-HSN-SA2C-722-U-T2U**

Issue Date: 08/22/2024



**Test Information**

Test Method: LM-79-08  
Report Number: P868869  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 08/22/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: EMM2-HSN-SA2C-722-U-T2U  
Description: EPIC MODERN SHORT HOUSING DISCRETE LED ARRAYS 120W 70CRI 2200K  
FITXURE w/ TYPE II URBAN DISTRIBUTION OPTIC  
Light Source: (20) 2200K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

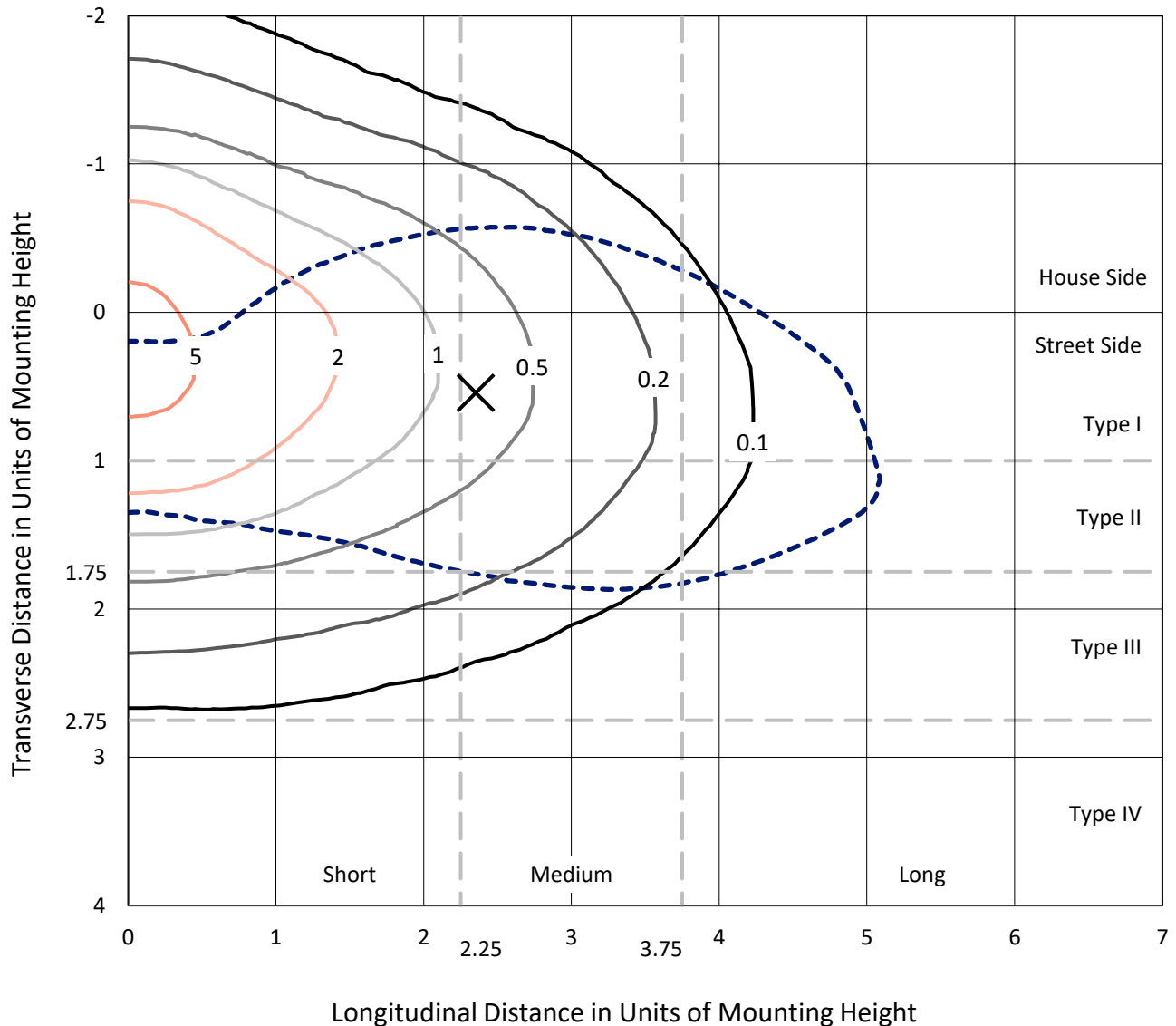
Lumens per Lamp: N/A  
Luminaire Lumens: 11927.8 lumens  
Efficiency: N/A  
Efficacy: 118.1 lumens/watt  
Luminous Opening: Rectangular (W 0.67' x L: 0.33' x H: 0')  
IES Classification: Type III - Medium  
BUG Rating: B3 - U0 - G3

Input Watts (W): 101  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: 0.99  
Total Harmonic Distortion (THDi): 9.45%  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT

REPORT NUMBER: P868869  
 CATALOG NUMBER: EMM2-HSN-SA2C-722-U-T2U

### Iso-Footcandle Lines of Horizontal Illumination

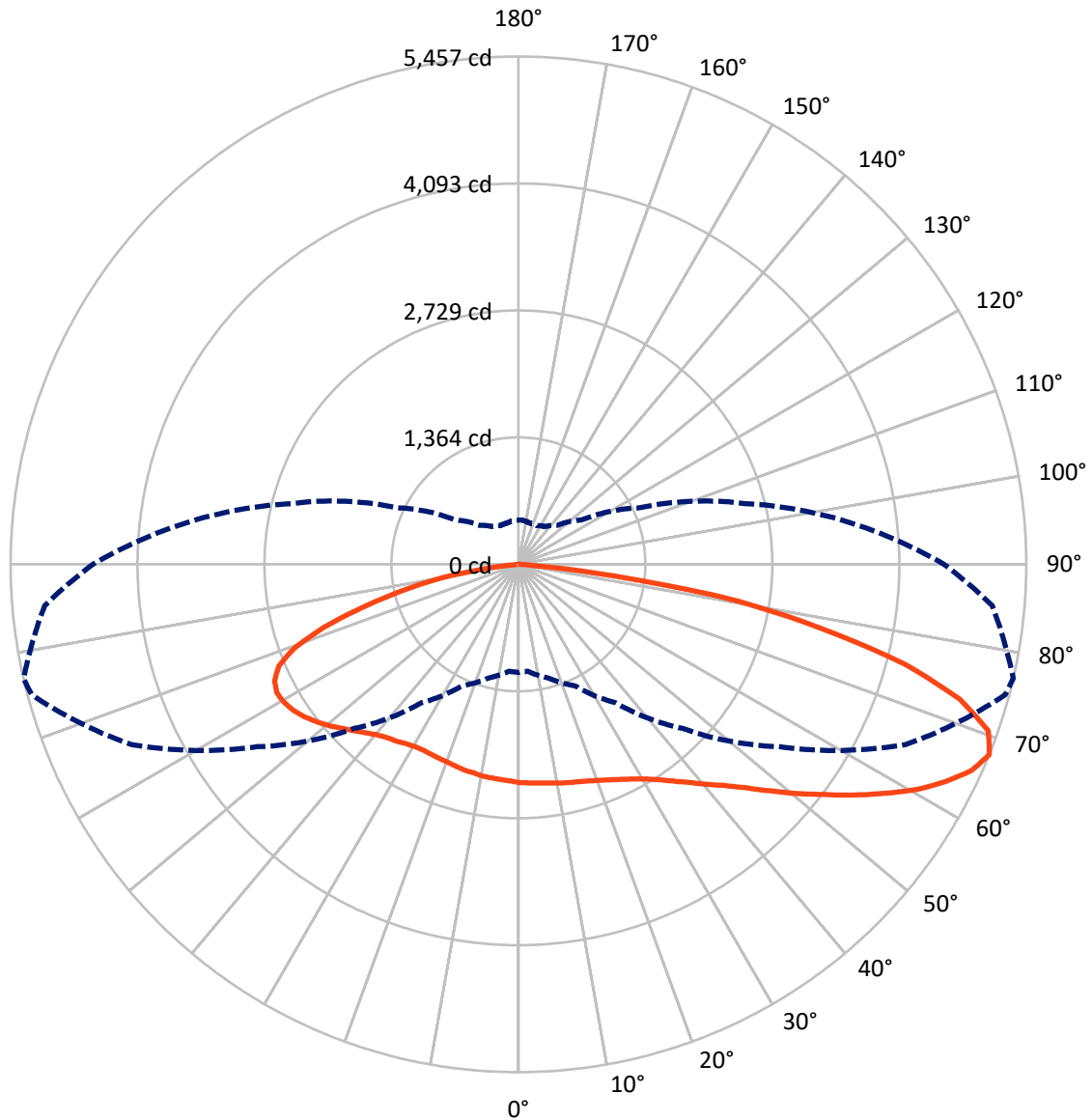
× Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 6.4 fc  
 Type III - Medium - N/A

REPORT NUMBER: P868869  
CATALOG NUMBER: EMM2-HSN-SA2C-722-U-T2U

### Luminous Intensity Polar Plot



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

REPORT NUMBER: P868869  
 CATALOG NUMBER: EMM2-HSN-SA2C-722-U-T2U

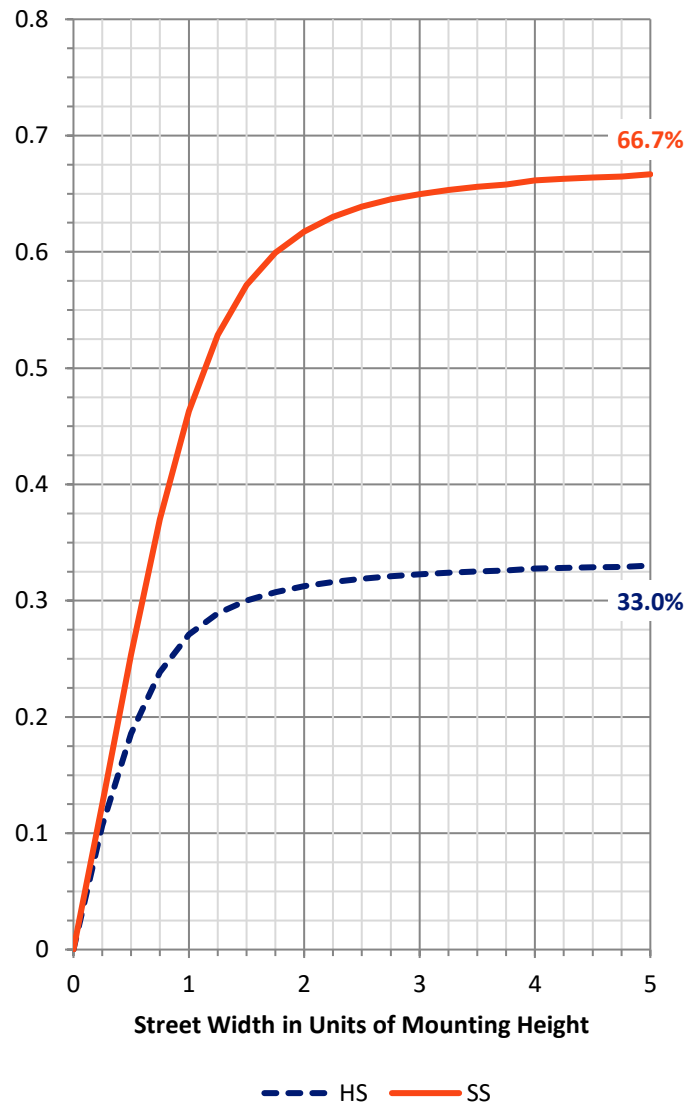
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	3966.4	0.0	3966.4
	% Fixture	33.3	0.0	33.3
<b>Street Side</b>	Lumens	7961.4	0.0	7961.4
	% Fixture	66.7	0.0	66.7
<b>Total</b>	Lumens	11927.8	0.0	11927.8
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	225.4	1.9
10°-20°	683.6	5.7
20°-30°	1152.5	9.7
30°-40°	1635.4	13.7
40°-50°	2069.2	17.3
50°-60°	2266.7	19.0
60°-70°	2191.1	18.4
70°-80°	1473.7	12.4
80°-90°	230.3	1.9
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°	11927.8	100.0
0°-180°	11927.8	100.0



REPORT NUMBER: P868869

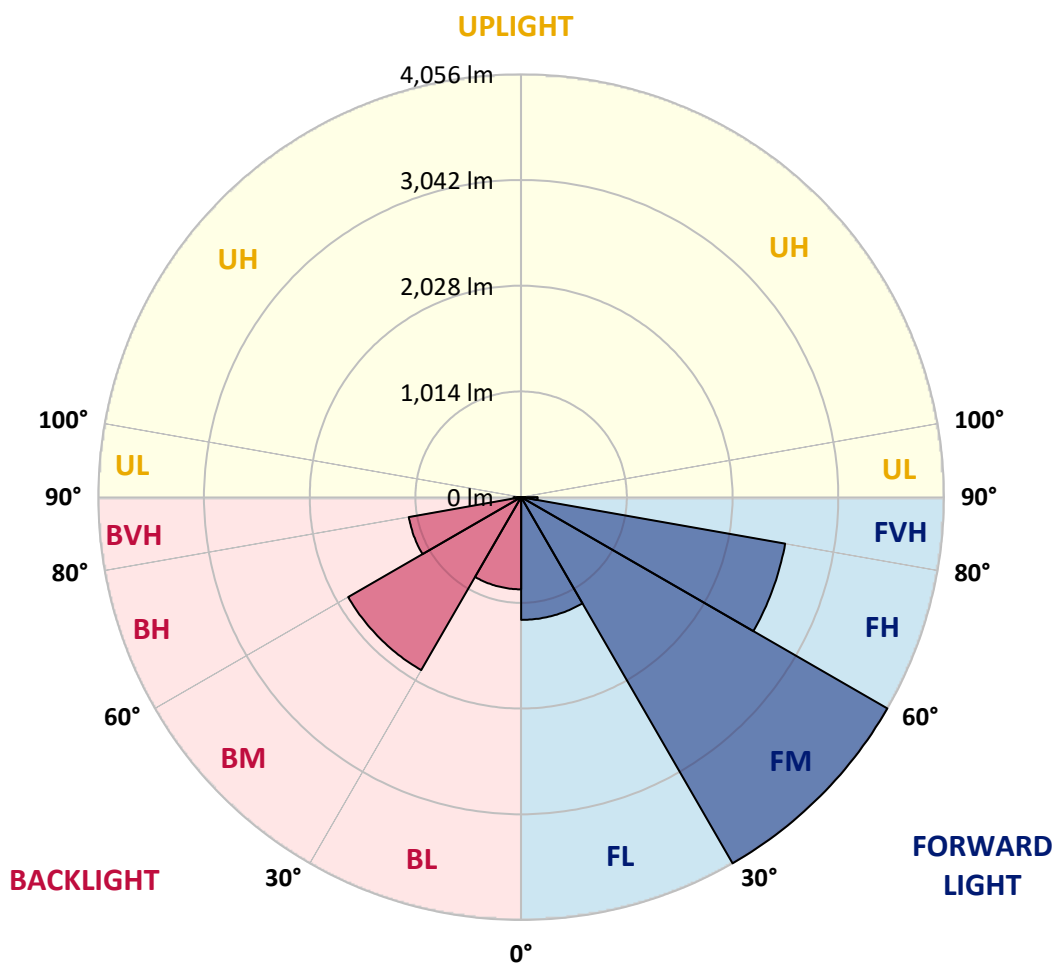
CATALOG NUMBER: EMM2-HSN-SA2C-722-U-T2U

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1177.3	9.9			
FM	(30°-60°)	4055.6	34.0			
FH	(60°-80°)	2570.8	21.6			G2/5000
FVH	(80°-90°)	157.7	1.3			G2/225
BL	(0°-30°)	884.2	7.4	B2/1000		
BM	(30°-60°)	1915.7	16.1	B2/2500		
BH	(60°-80°)	1093.9	9.2	B3/2500		G3/2500
BVH	(80°-90°)	72.6	0.6			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G3**

Type III Medium





REPORT NUMBER: P868869

CATALOG NUMBER: EMM2-HSN-SA2C-722-U-T2U

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	2345.1	2345.1	2345.1	2345.1	2345.1	2345.1	2345.1	2345.1	2345.1	2345.1	2345.1
2.5°	2397.0	2394.7	2382.9	2387.6	2373.4	2382.9	2368.7	2356.9	2354.6	2352.2	2354.6
5°	2472.5	2460.7	2448.9	2441.9	2430.1	2425.3	2401.8	2378.2	2364.0	2361.6	2356.9
7.5°	2559.8	2555.1	2538.6	2529.2	2496.1	2479.6	2446.6	2404.1	2382.9	2373.4	2361.6
10°	2649.5	2661.3	2640.0	2621.2	2583.4	2548.0	2491.4	2437.1	2394.7	2390.0	2364.0
12.5°	2760.4	2758.0	2743.9	2710.8	2666.0	2616.5	2548.0	2472.5	2415.9	2406.5	2368.7
15°	2859.5	2857.1	2838.2	2807.6	2748.6	2687.2	2595.2	2507.9	2437.1	2423.0	2378.2
17.5°	2951.5	2946.8	2935.0	2901.9	2828.8	2753.3	2663.6	2548.0	2463.1	2446.6	2385.2
20°	3031.7	3036.4	3022.2	2989.2	2920.8	2840.6	2727.3	2599.9	2496.1	2477.3	2406.5
22.5°	3119.0	3121.3	3114.3	3102.5	3015.2	2930.2	2807.6	2658.9	2533.9	2515.0	2430.1
25°	3211.0	3213.4	3218.1	3211.0	3111.9	3019.9	2890.1	2732.1	2585.8	2559.8	2463.1
27.5°	3317.2	3319.5	3329.0	3314.8	3208.6	3111.9	2982.1	2809.9	2640.0	2611.7	2491.4
30°	3437.5	3446.9	3439.8	3435.1	3312.4	3218.1	3074.2	2890.1	2710.8	2675.4	2541.0
32.5°	3581.4	3579.0	3564.9	3550.7	3425.7	3326.6	3178.0	2993.9	2798.1	2758.0	2621.2
35°	3685.2	3685.2	3664.0	3656.9	3541.3	3437.5	3291.2	3109.5	2897.2	2859.5	2706.1
37.5°	3748.9	3758.3	3741.8	3746.6	3635.7	3538.9	3404.5	3227.5	3005.7	2972.7	2809.9
40°	3772.5	3796.1	3810.3	3829.1	3718.2	3635.7	3524.8	3354.9	3144.9	3107.2	2935.0
42.5°	3777.2	3812.6	3862.2	3902.3	3777.2	3708.8	3640.4	3484.7	3281.8	3248.7	3071.8
45°	3753.6	3737.1	3857.4	3862.2	3810.3	3767.8	3741.8	3640.4	3480.0	3425.7	3241.7
47.5°	3574.3	3555.4	3588.5	3739.5	3770.1	3793.7	3845.6	3822.0	3678.1	3635.7	3437.5
50°	3284.1	3274.7	3406.8	3569.6	3671.1	3791.4	3930.6	3996.6	3897.5	3871.6	3685.2
52.5°	2805.2	2779.2	3048.2	3364.3	3541.3	3767.8	3989.6	4175.9	4145.3	4107.5	3897.5
55°	2500.8	2500.8	2682.5	3076.5	3376.1	3682.8	4027.3	4364.7	4418.9	4376.5	4140.6
57.5°	2175.3	2201.2	2390.0	2661.3	3137.9	3527.1	4022.6	4522.8	4683.2	4643.1	4397.7
60°	1896.9	1918.1	2026.6	2300.3	2857.1	3321.9	3970.7	4652.5	4928.6	4914.4	4624.2
62.5°	1613.8	1639.7	1727.0	1984.2	2486.7	3085.9	3862.2	4723.3	5159.8	5145.6	4853.1
65°	1387.3	1389.6	1476.9	1691.6	2116.3	2800.5	3671.1	4709.1	5339.1	5348.5	5046.5
67.5°	1160.8	1153.7	1266.9	1441.5	1814.3	2493.8	3416.3	4584.1	5414.6	5457.0	5110.2
70°	854.1	863.5	1021.6	1215.0	1533.5	2139.9	3060.0	4341.1	5291.9	5357.9	4963.9
72.5°	641.7	660.6	814.0	1014.5	1281.1	1786.0	2670.7	3918.8	4949.8	4959.2	4518.0
75°	521.4	526.1	663.0	842.3	1049.9	1432.1	2144.6	3272.3	4185.4	4293.9	3838.6
77.5°	443.5	438.8	504.9	679.5	847.0	1144.3	1616.1	2489.0	3286.5	3336.0	3005.7
80°	377.5	375.1	398.7	549.7	663.0	816.3	1106.5	1734.1	2345.1	2399.4	2135.2
82.5°	198.2	212.3	207.6	339.7	375.1	429.4	530.8	788.0	1023.9	1038.1	981.5
85°	9.4	9.4	9.4	14.2	23.6	37.7	73.1	73.1	80.2	153.4	174.6
87.5°	2.4	2.4	4.7	4.7	4.7	7.1	7.1	9.4	9.4	9.4	9.4
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: P868869  
 CATALOG NUMBER: EMM2-HSN-SA2C-722-U-T2U

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2345.1	2345.1	2345.1	2345.1	2345.1	2345.1	2345.1	2345.1	2345.1	2345.1	2345.1
2.5°	2349.9	2340.4	2326.3	2328.6	2326.3	2326.3	2314.5	2305.0	2302.7	2307.4	2316.8
5°	2352.2	2338.1	2316.8	2309.7	2302.7	2297.9	2279.1	2264.9	2257.8	2262.6	2264.9
7.5°	2352.2	2331.0	2307.4	2293.2	2274.4	2260.2	2239.0	2220.1	2210.7	2213.0	2217.7
10°	2347.5	2323.9	2305.0	2276.7	2246.0	2229.5	2196.5	2172.9	2161.1	2163.5	2151.7
12.5°	2347.5	2321.5	2283.8	2257.8	2215.4	2180.0	2154.0	2128.1	2118.6	2109.2	2104.5
15°	2349.9	2316.8	2279.1	2224.8	2175.3	2137.5	2104.5	2088.0	2073.8	2069.1	2071.5
17.5°	2349.9	2316.8	2260.2	2196.5	2139.9	2092.7	2064.4	2045.5	2040.8	2036.1	2036.1
20°	2361.6	2319.2	2243.7	2168.2	2097.4	2047.9	2021.9	2010.1	2010.1	2003.0	2003.0
22.5°	2380.5	2323.9	2234.2	2144.6	2062.0	2007.8	1979.4	1965.3	1972.4	1967.6	1965.3
25°	2401.8	2340.4	2222.5	2111.6	2014.8	1958.2	1929.9	1920.5	1918.1	1906.3	1922.8
27.5°	2418.3	2352.2	2215.4	2078.5	1972.4	1906.3	1870.9	1854.4	1842.6	1847.3	1842.6
30°	2463.1	2385.2	2217.7	2050.2	1925.2	1845.0	1802.5	1783.6	1778.9	1778.9	1778.9
32.5°	2524.4	2427.7	2234.2	2038.4	1880.4	1786.0	1734.1	1715.2	1710.5	1701.0	1705.8
35°	2602.3	2491.4	2260.2	2019.6	1845.0	1717.6	1660.9	1635.0	1627.9	1618.5	1618.5
37.5°	2689.6	2555.1	2279.1	2010.1	1797.8	1646.8	1583.1	1550.1	1545.3	1535.9	1540.6
40°	2800.5	2642.4	2309.7	1991.2	1743.5	1583.1	1498.1	1443.9	1455.7	1460.4	1469.8
42.5°	2925.5	2753.3	2356.9	1972.4	1701.0	1517.0	1392.0	1337.7	1351.9	1347.2	1356.6
45°	3095.4	2883.1	2415.9	1965.3	1649.1	1436.8	1283.5	1222.1	1217.4	1210.3	1215.0
47.5°	3272.3	3038.8	2472.5	1951.1	1592.5	1337.7	1160.8	1082.9	1064.0	1054.6	1045.2
50°	3456.4	3194.5	2538.6	1941.7	1517.0	1226.8	1038.1	948.4	913.0	901.2	889.5
52.5°	3664.0	3362.0	2595.2	1918.1	1434.4	1111.2	927.2	825.8	785.6	762.1	764.4
55°	3883.4	3515.3	2647.1	1889.8	1340.1	1002.7	816.3	731.4	691.3	684.2	684.2
57.5°	4086.3	3673.4	2684.9	1840.2	1245.7	896.5	724.3	651.2	632.3	641.7	641.7
60°	4293.9	3800.8	2703.7	1786.0	1149.0	806.9	660.6	601.6	592.2	611.1	613.4
62.5°	4461.4	3902.3	2699.0	1710.5	1042.8	729.0	599.3	552.1	556.8	589.8	596.9
65°	4581.7	3951.8	2640.0	1597.2	941.4	660.6	545.0	500.2	500.2	523.8	530.8
67.5°	4572.3	3888.1	2522.1	1439.2	832.8	592.2	495.5	460.1	460.1	476.6	474.2
70°	4378.8	3668.7	2297.9	1248.1	726.7	533.2	453.0	427.0	424.7	431.7	429.4
72.5°	3914.1	3222.8	1948.8	1031.0	627.6	474.2	410.5	386.9	382.2	372.8	365.7
75°	3229.9	2647.1	1521.7	821.0	530.8	417.6	370.4	349.2	330.3	342.1	335.0
77.5°	2505.6	2031.3	1132.5	637.0	431.7	363.3	330.3	306.7	302.0	344.5	330.3
80°	1828.4	1403.8	799.8	455.3	335.0	294.9	276.0	257.2	325.6	436.5	434.1
82.5°	811.6	677.1	365.7	217.1	155.7	129.8	108.5	122.7	205.3	200.5	207.6
85°	73.1	75.5	40.1	26.0	16.5	14.2	9.4	9.4	7.1	7.1	7.1
87.5°	9.4	9.4	7.1	7.1	4.7	4.7	4.7	4.7	2.4	2.4	2.4
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**

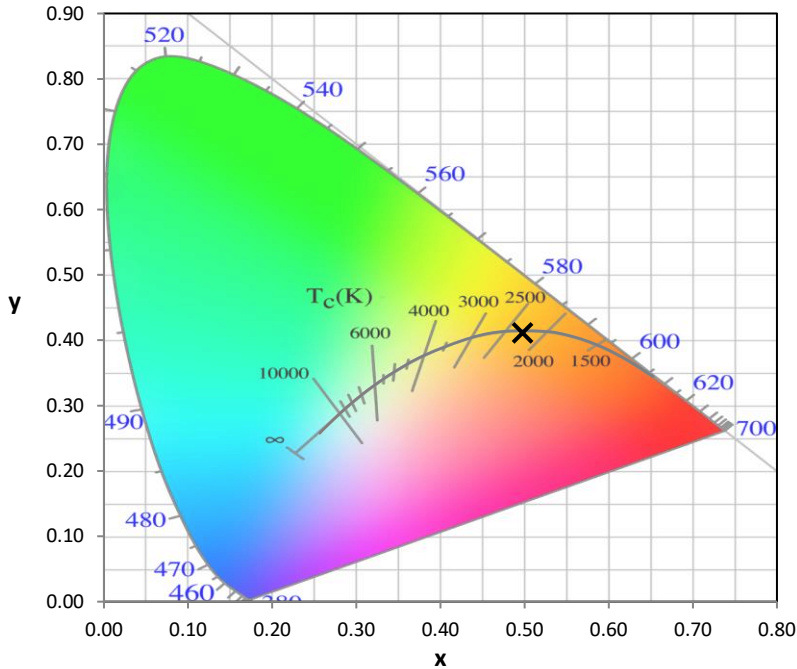
Stabilization Time: 29M  
 Operation Time: 1H 29M  
 Sphere Temperature (°C): 24.1

REPORT NUMBER: SP1-2407-157-2

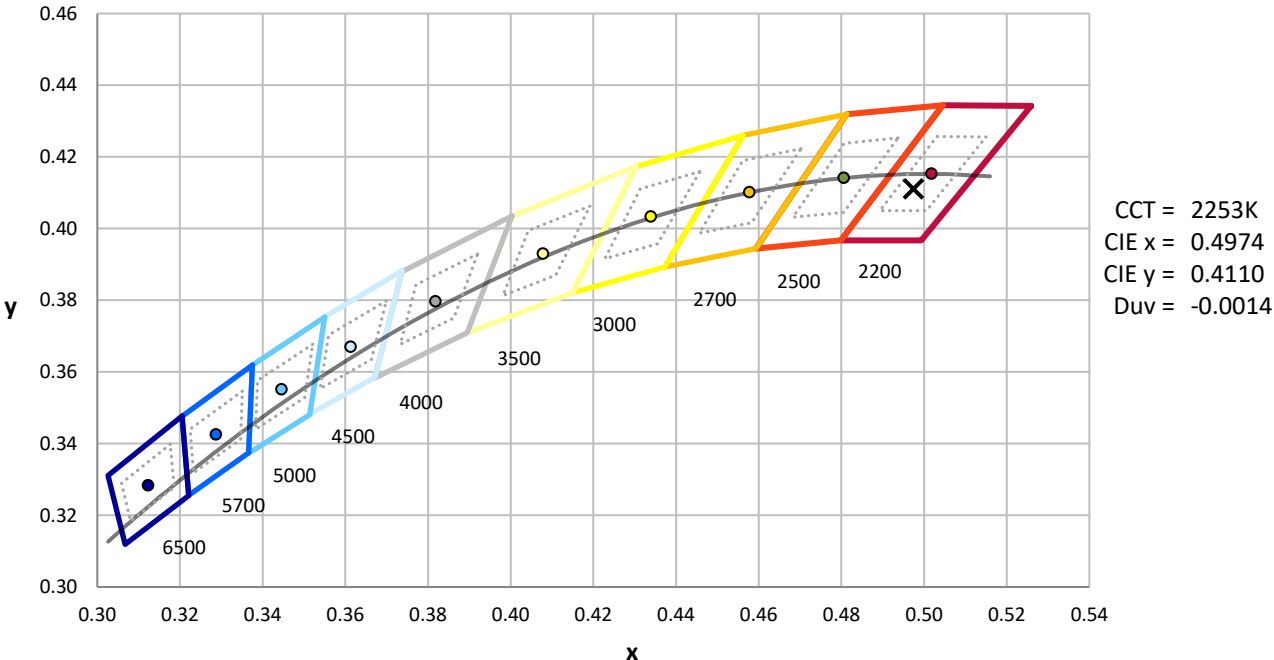
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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



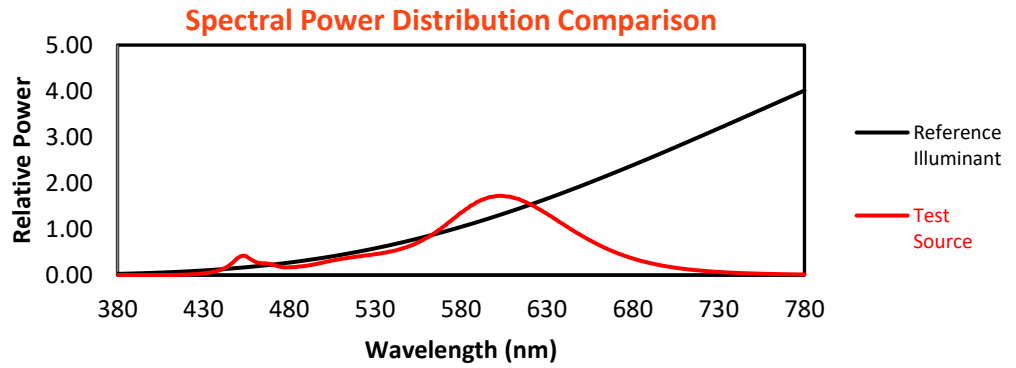
**Melanopic Lumens: NR**

**M/P: 1.71**

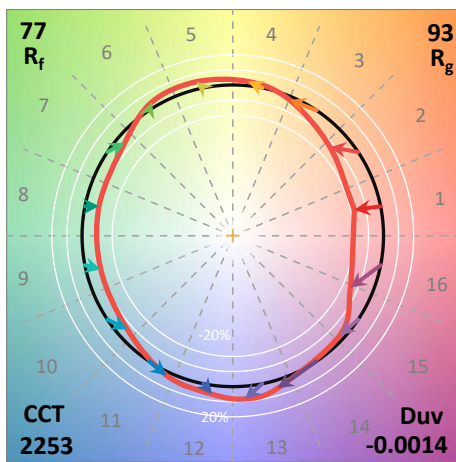
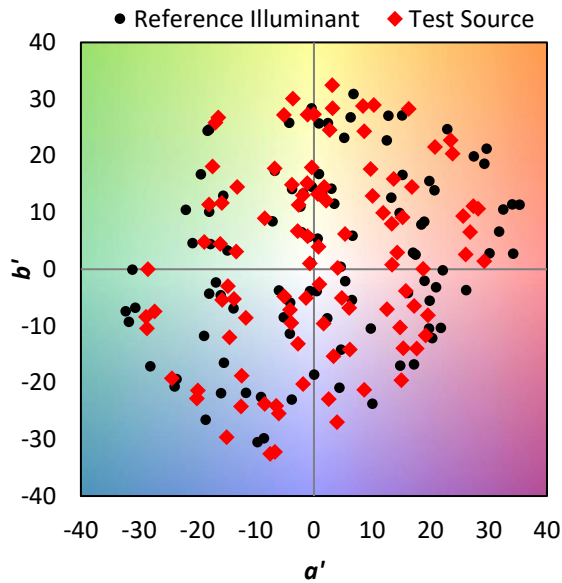
λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)
360	0	NR	490	117	NR	620	896	NR	750	20	NR	880	0	NR
365	0	NR	495	137	NR	625	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  $R_a = 70.6$   
 $R_9 = -36.0$



**Color Vector Graphics**



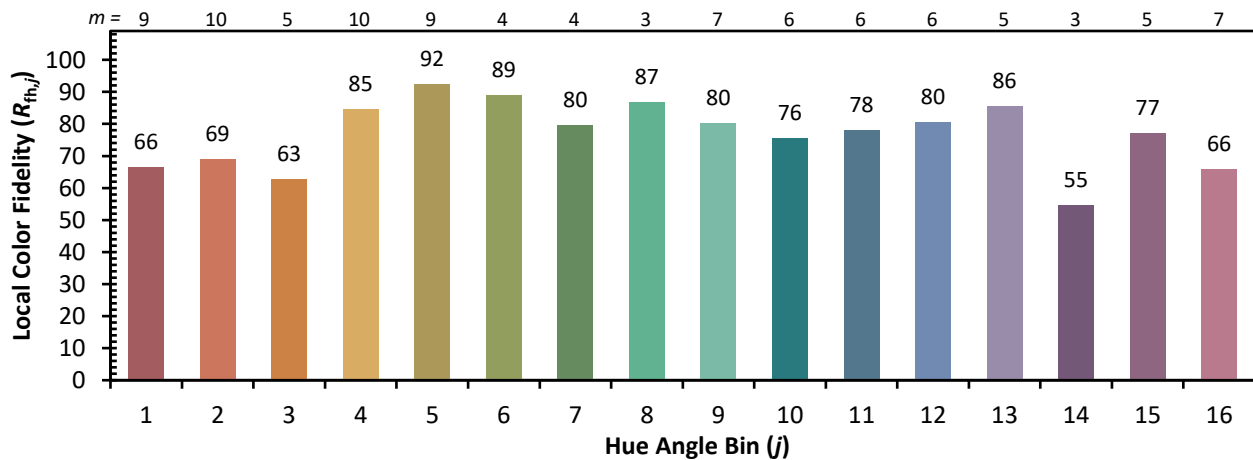


**Individual Sample Fidelity Index ( $R_{f,i}$ )**

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)