

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: STREETWORKS

Report Number: P868117

Luminaire Tested: **MEM2-HSN-SA-90-740-U-T4W**

Issue Date: 08/21/2024



**Test Information**

Test Method: LM-79-08  
Report Number: P868117  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 08/21/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: MEM2-HSN-SA-90-740-U-T4W  
Description: EPIC MODERN SHORT HOUSING DISCRETE LED ARRAYS 90W 70CRI 4000K  
FITXURE w/ TYPE IV WIDE DISTRIBUTION OPTIC  
Light Source: (20) 4000K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

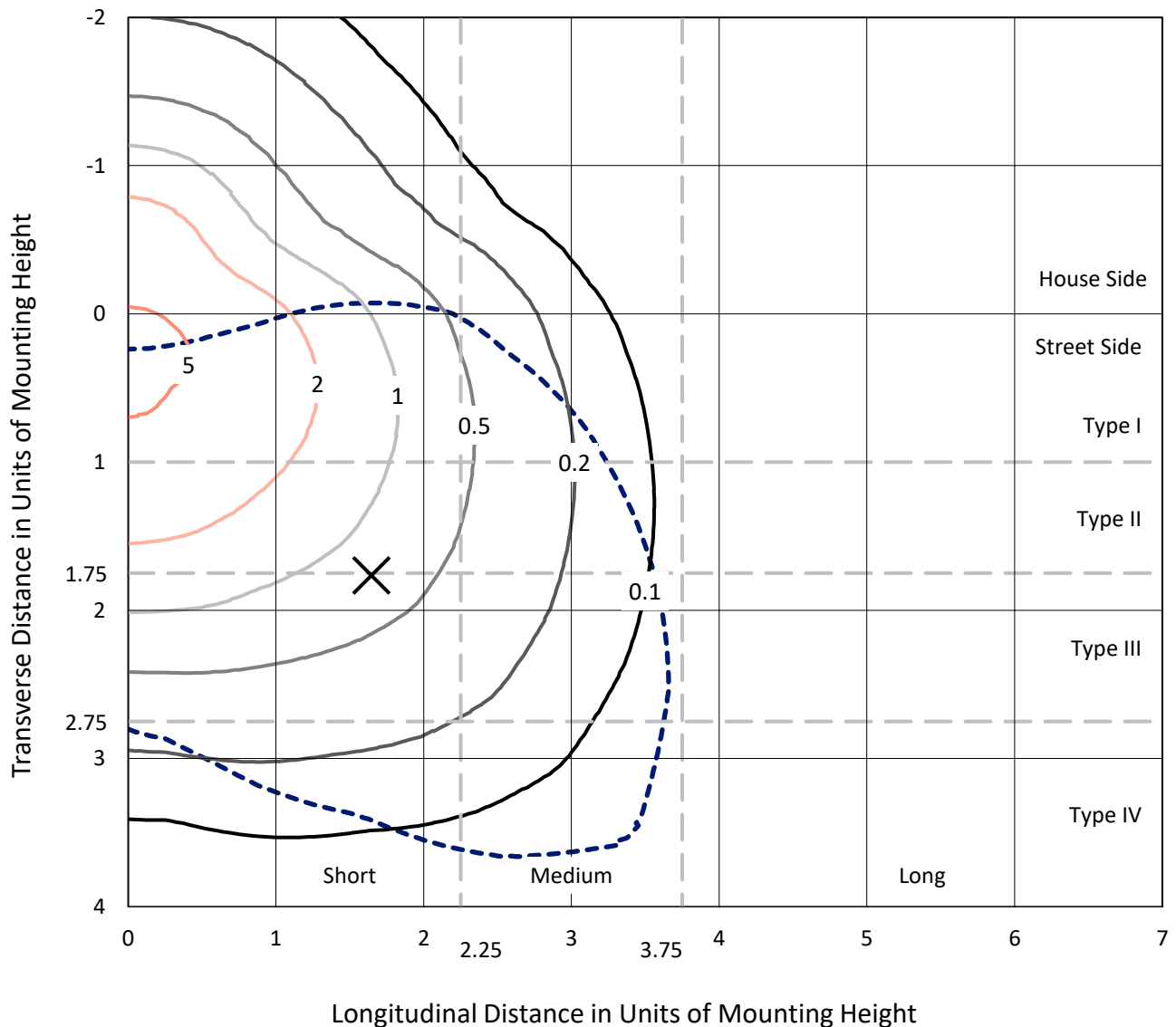
Lumens per Lamp: N/A  
Luminaire Lumens: 12652.1 lumens  
Efficiency: N/A  
Efficacy: 140.6 lumens/watt  
Luminous Opening: Rectangular (W 0.67' x L: 0.33' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B2 - U0 - G2

Input Watts (W): 90  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: 0.99  
Total Harmonic Distortion (THDi): 6.20%  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT

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 CATALOG NUMBER: MEM2-HSN-SA-90-740-U-T4W

### Iso-Footcandle Lines of Horizontal Illumination

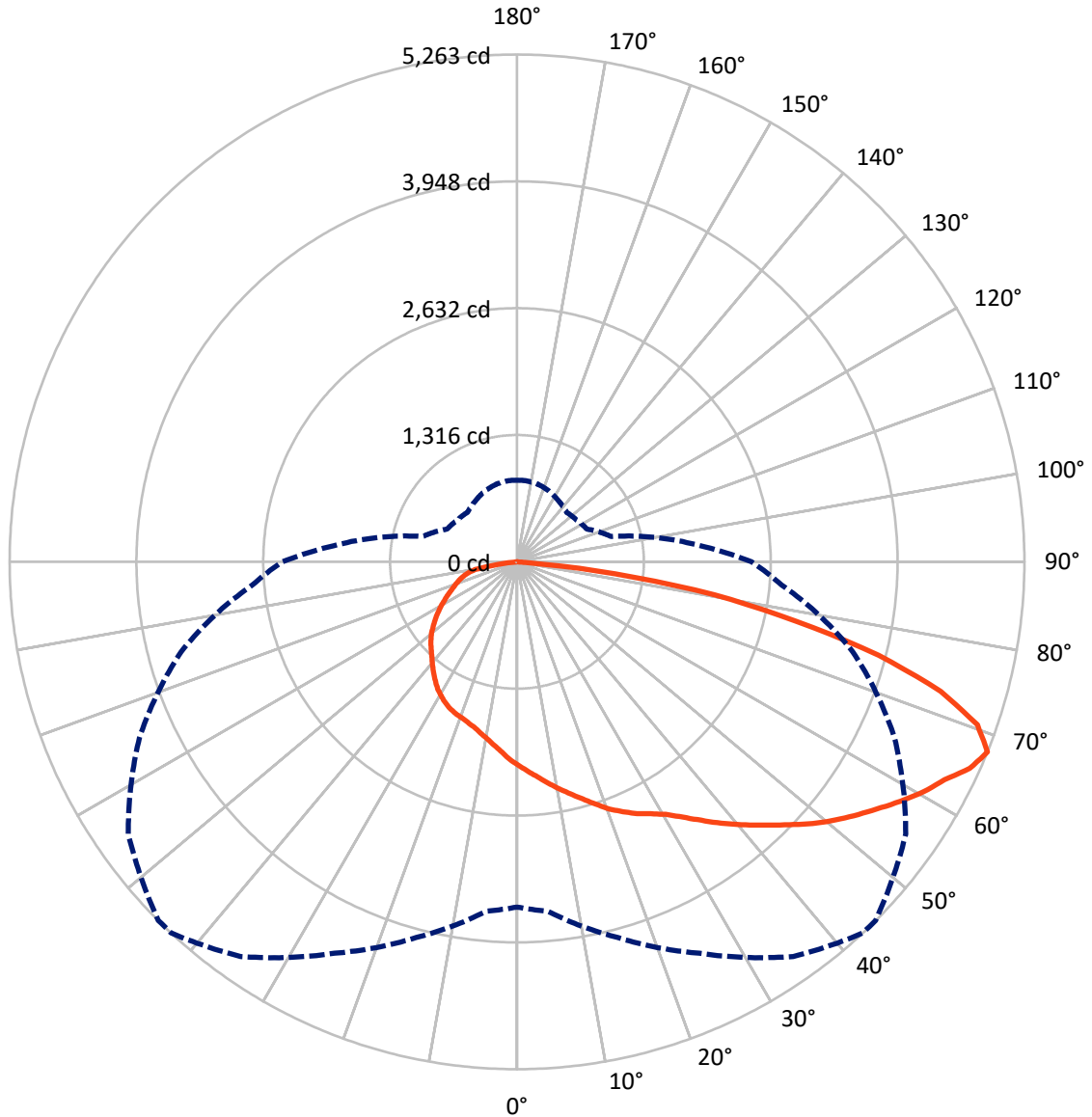
✕ Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 6 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 43-Deg Lateral    - - - Horizontal Cone Through 67.5-Deg Vertical

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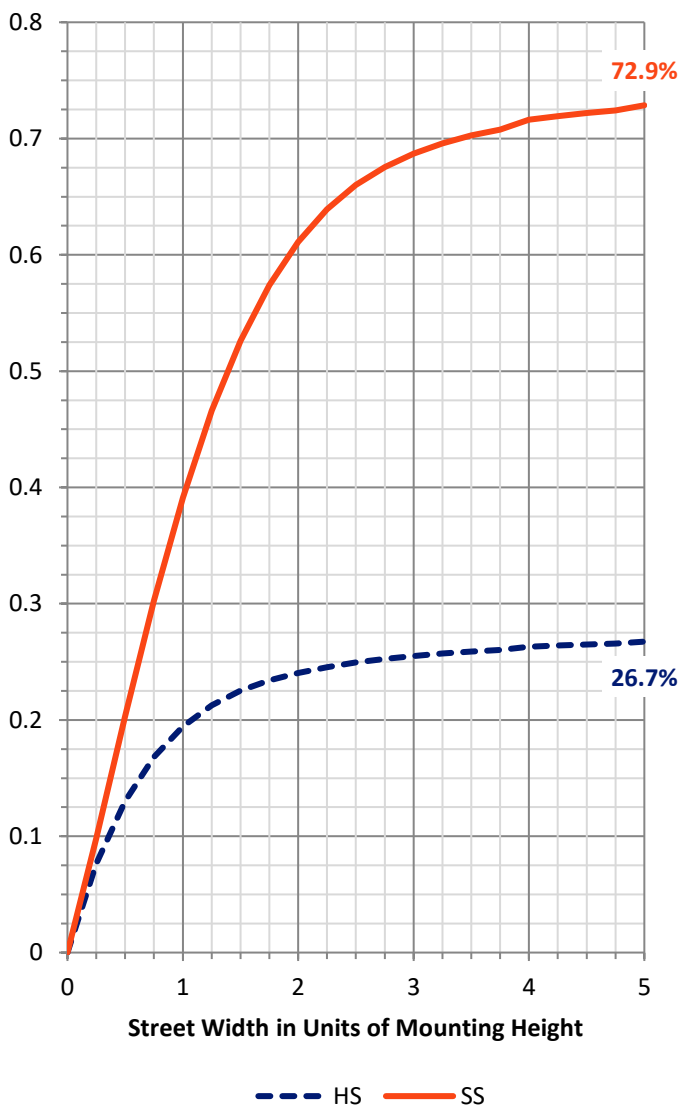
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	3403.4	0.0	3403.4
	% Fixture	26.9	0.0	26.9
<b>Street Side</b>	Lumens	9248.6	0.0	9248.6
	% Fixture	73.1	0.0	73.1
<b>Total</b>	Lumens	12652.1	0.0	12652.1
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	202.1	1.6
10°-20°	617.2	4.9
20°-30°	1053.1	8.3
30°-40°	1536.0	12.1
40°-50°	2063.4	16.3
50°-60°	2525.9	20.0
60°-70°	2658.4	21.0
70°-80°	1735.5	13.7
80°-90°	260.3	2.1
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°	12652.1	100.0
0°-180°	12652.1	100.0

**Coefficient of Utilization**



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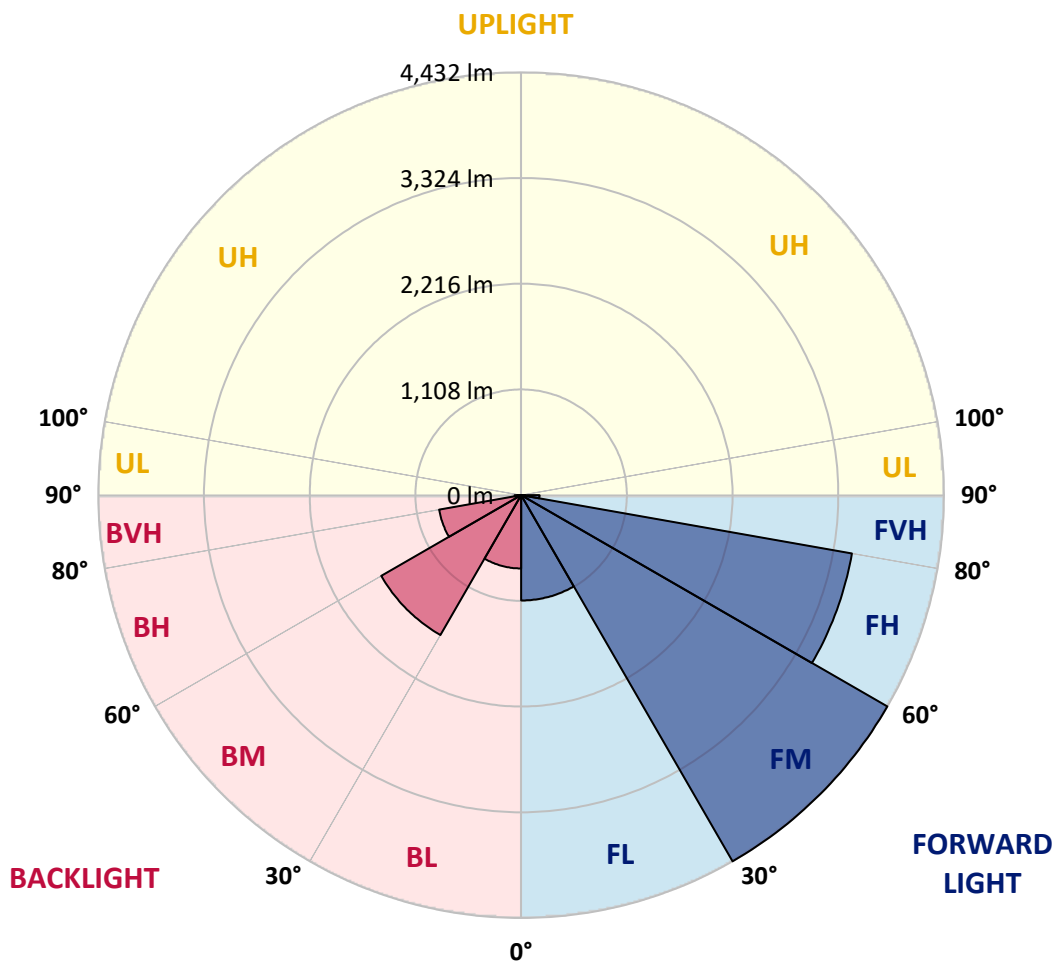
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1104.1	8.7			
FM (30°-60°)	4431.9	35.0			
FH (60°-80°)	3520.5	27.8			G2/5000
FVH (80°-90°)	192.1	1.5			G2/225
BL (0°-30°)	768.4	6.1	B2/1000		
BM (30°-60°)	1693.4	13.4	B2/2500		
BH (60°-80°)	873.4	6.9	B2/1000		G2/1000
BVH (80°-90°)	68.3	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 IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	43°	45°	55°	65°	75°	85°
0°	2112.0	2112.0	2112.0	2112.0	2112.0	2112.0	2112.0	2112.0	2112.0	2112.0	2112.0
2.5°	2209.3	2206.7	2199.0	2193.9	2178.6	2176.0	2176.0	2160.6	2142.7	2132.5	2122.2
5°	2309.1	2296.3	2291.2	2281.0	2255.4	2240.0	2245.1	2217.0	2181.1	2155.5	2127.4
7.5°	2398.7	2393.6	2375.7	2362.9	2332.2	2316.8	2311.7	2268.2	2222.1	2183.7	2137.6
10°	2506.3	2493.5	2483.2	2457.6	2416.7	2393.6	2385.9	2329.6	2270.7	2219.5	2158.1
12.5°	2603.5	2588.2	2575.4	2549.8	2508.8	2470.4	2460.2	2396.2	2321.9	2252.8	2176.0
15°	2677.8	2680.3	2667.5	2644.5	2598.4	2552.3	2544.7	2460.2	2370.6	2286.1	2193.9
17.5°	2746.9	2757.1	2749.5	2734.1	2688.0	2641.9	2634.3	2539.5	2432.0	2324.5	2214.4
20°	2813.5	2813.5	2810.9	2800.7	2767.4	2736.7	2721.3	2626.6	2490.9	2365.5	2242.6
22.5°	2851.9	2862.1	2862.1	2862.1	2841.6	2816.0	2810.9	2718.7	2570.3	2416.7	2268.2
25°	2910.7	2923.5	2923.5	2918.4	2900.5	2892.8	2885.1	2798.1	2647.1	2475.5	2296.3
27.5°	3036.2	3033.6	3013.1	2987.5	2961.9	2959.4	2949.1	2887.7	2736.7	2539.5	2334.7
30°	3210.3	3215.4	3189.8	3110.4	3051.5	3038.7	3041.3	2987.5	2841.6	2613.8	2378.3
32.5°	3476.5	3476.5	3376.7	3274.3	3189.8	3156.5	3148.8	3102.7	2949.1	2695.7	2426.9
35°	3676.2	3668.5	3612.2	3491.9	3386.9	3292.2	3279.4	3217.9	3069.5	2787.9	2480.7
37.5°	3827.2	3842.6	3799.1	3706.9	3604.5	3440.7	3415.1	3328.0	3179.5	2877.5	2534.4
40°	4119.1	4080.7	3975.7	3891.2	3768.3	3586.6	3563.5	3456.0	3292.2	2977.3	2601.0
42.5°	4331.5	4277.8	4157.5	4044.8	3891.2	3732.5	3712.0	3594.3	3422.7	3089.9	2670.1
45°	4636.2	4515.9	4349.5	4249.6	4032.0	3891.2	3865.6	3737.6	3558.4	3210.3	2757.1
47.5°	4930.6	4720.7	4544.0	4497.9	4185.6	4062.7	4042.3	3893.8	3704.3	3340.8	2841.6
50°	4892.2	4753.9	4695.1	4651.5	4318.7	4224.0	4203.5	4052.5	3852.8	3479.1	2926.1
52.5°	4794.9	4807.7	4810.3	4705.3	4444.2	4375.1	4354.6	4224.0	4006.4	3599.4	3008.0
55°	4897.3	4912.7	4910.1	4751.4	4590.1	4526.1	4513.3	4398.1	4154.9	3712.0	3066.9
57.5°	5053.5	5002.3	4994.6	4866.6	4746.3	4687.4	4672.0	4572.2	4280.3	3793.9	3113.0
60°	5081.6	4979.2	5012.5	4892.2	4864.0	4846.1	4841.0	4723.2	4398.1	3860.5	3130.9
62.5°	4766.7	4748.8	4879.4	4830.7	4925.5	4976.7	4979.2	4830.7	4462.1	3886.1	3113.0
65°	4229.1	4300.8	4582.4	4723.2	5017.6	5163.5	5158.4	4894.7	4454.4	3811.9	3002.9
67.5°	3581.5	3637.8	4034.6	4480.0	4997.1	5263.4	5260.8	4922.9	4321.3	3607.1	2754.6
70°	2716.2	2892.8	3456.0	4042.3	4720.7	5066.3	5109.8	4764.2	4016.7	3233.3	2378.3
72.5°	2065.9	2094.1	2775.1	3389.5	4226.6	4597.8	4590.1	4257.3	3507.2	2723.9	1981.4
75°	1466.9	1528.3	2089.0	2626.6	3463.7	3875.9	3857.9	3491.9	2798.1	2119.7	1515.5
77.5°	1093.1	1116.2	1528.3	1948.2	2590.7	2961.9	2954.3	2580.5	2058.2	1556.5	1129.0
80°	798.7	837.1	1100.8	1359.4	1756.2	2076.2	2065.9	1712.6	1321.0	1088.0	824.3
82.5°	448.0	476.2	640.0	821.8	926.7	1026.6	983.0	821.8	601.6	468.5	404.5
85°	12.8	15.4	23.0	28.2	48.6	81.9	89.6	79.4	94.7	58.9	64.0
87.5°	5.1	5.1	5.1	5.1	5.1	7.7	7.7	7.7	7.7	7.7	7.7
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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**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2112.0	2112.0	2112.0	2112.0	2112.0	2112.0	2112.0	2112.0	2112.0	2112.0	2112.0
2.5°	2117.1	2106.9	2086.4	2073.6	2065.9	2055.7	2040.3	2030.1	2022.4	2032.6	2030.1
5°	2114.6	2094.1	2058.2	2032.6	2007.0	1986.6	1963.5	1945.6	1935.4	1940.5	1937.9
7.5°	2114.6	2089.0	2032.6	1991.7	1953.3	1922.6	1897.0	1873.9	1863.7	1866.2	1863.7
10°	2124.8	2089.0	2014.7	1955.8	1904.6	1868.8	1840.6	1820.2	1812.5	1820.2	1822.7
12.5°	2135.0	2089.0	1999.4	1925.1	1858.6	1820.2	1794.6	1781.8	1786.9	1789.4	1792.0
15°	2140.2	2086.4	1984.0	1889.3	1815.0	1774.1	1758.7	1756.2	1769.0	1781.8	1784.3
17.5°	2153.0	2083.8	1961.0	1853.4	1776.6	1743.4	1735.7	1745.9	1771.5	1789.4	1794.6
20°	2168.3	2089.0	1935.4	1809.9	1738.2	1712.6	1725.4	1748.5	1779.2	1804.8	1809.9
22.5°	2183.7	2091.5	1912.3	1771.5	1697.3	1692.2	1720.3	1753.6	1789.4	1815.0	1820.2
25°	2201.6	2091.5	1881.6	1722.9	1656.3	1664.0	1707.5	1751.0	1784.3	1817.6	1822.7
27.5°	2219.5	2096.6	1848.3	1669.1	1605.1	1628.2	1681.9	1735.7	1771.5	1804.8	1812.5
30°	2250.2	2106.9	1820.2	1623.0	1553.9	1584.6	1648.6	1710.1	1748.5	1784.3	1792.0
32.5°	2281.0	2122.2	1797.1	1574.4	1502.7	1538.6	1610.2	1679.4	1720.3	1753.6	1758.7
35°	2321.9	2142.7	1779.2	1525.8	1451.5	1479.7	1556.5	1633.3	1679.4	1705.0	1717.8
37.5°	2365.5	2170.9	1763.8	1482.2	1395.2	1420.8	1502.7	1584.6	1633.3	1658.9	1664.0
40°	2419.2	2209.3	1753.6	1441.3	1341.4	1361.9	1443.8	1533.4	1579.5	1597.4	1607.7
42.5°	2478.1	2250.2	1745.9	1400.3	1282.6	1303.0	1390.1	1477.1	1523.2	1538.6	1546.2
45°	2552.3	2304.0	1740.8	1356.8	1233.9	1251.8	1338.9	1425.9	1464.3	1484.8	1492.5
47.5°	2621.5	2357.8	1725.4	1305.6	1180.2	1205.8	1285.1	1361.9	1405.4	1418.2	1425.9
50°	2690.6	2403.9	1694.7	1249.3	1131.5	1154.6	1226.2	1282.6	1315.8	1331.2	1336.3
52.5°	2757.1	2437.1	1646.1	1190.4	1080.3	1095.7	1154.6	1208.3	1231.4	1236.5	1251.8
55°	2800.7	2455.1	1577.0	1121.3	1029.1	1034.2	1077.8	1126.4	1139.2	1141.8	1141.8
57.5°	2831.4	2444.8	1495.0	1052.2	977.9	977.9	1003.5	1041.9	1047.0	1049.6	1054.7
60°	2836.5	2409.0	1390.1	988.2	921.6	913.9	939.5	962.6	965.1	970.2	975.4
62.5°	2798.1	2329.6	1277.4	926.7	867.8	849.9	873.0	896.0	908.8	916.5	921.6
65°	2680.3	2168.3	1149.4	865.3	816.6	785.9	814.1	852.5	878.1	880.6	880.6
67.5°	2434.6	1907.2	1013.8	801.3	755.2	727.0	762.9	803.8	834.6	847.4	844.8
70°	2063.4	1617.9	888.3	734.7	693.8	675.8	714.2	760.3	785.9	796.2	801.3
72.5°	1661.4	1295.4	778.2	668.2	640.0	629.8	668.2	714.2	750.1	765.4	768.0
75°	1292.8	1018.9	686.1	599.0	576.0	578.6	619.5	665.6	704.0	711.7	688.6
77.5°	1003.5	811.5	599.0	517.1	504.3	522.2	563.2	611.8	634.9	642.6	627.2
80°	724.5	622.1	483.8	407.0	407.0	435.2	471.0	527.4	535.0	524.8	529.9
82.5°	343.0	302.1	238.1	197.1	184.3	204.8	217.6	235.5	256.0	261.1	248.3
85°	46.1	30.7	23.0	25.6	23.0	15.4	10.2	10.2	10.2	7.7	7.7
87.5°	7.7	7.7	5.1	5.1	5.1	5.1	5.1	5.1	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



LM-79-2019: Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

Report Prepared for

Cooper Lighting Solutions

Streetworks

Report Number: SP1-2407-157-5

Test Date: 08/07/2024

Luminaire Tested: MEM2-HTN-SA-30-740-U-5WQ-2

Data in this report applies to families of products including MEM2-HTN-SA-30-740-U-5WQ-2

**Test Information**

Test Method: LM-79-2019  
 Report Number: SP1-2407-157-5  
 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-30-740-U-5WQ-2**  
 Description: Epic Modern Light Square 30W 5WQ Optic and Flare Trim

**Spectral Parameters**

CCT (K): 3915  
 CIE u': 0.2262  
 CIE v': 0.5044  
 Duv: 0.0010  
 CIE x: 0.3850  
 CIE y: 0.3816  
 CIE z: 0.2334  
 Peak Wavelength (nm): 449  
 Dominant Wavelength (nm): 578  
 Purity: 30.05482  
 Rf: 73.2  
 Rg: 93.9

CRI (Ra):	71.0		
R1:	67.6	R9:	-38.4
R2:	78.3	R10:	48.9
R3:	87.1	R11:	65.3
R4:	69.7	R12:	40.4
R5:	67.4	R13:	69.3
R6:	69.3	R14:	92.6
R7:	79.7	R15:	59.9
R8:	48.7		



**Test Conditions**

Stabilization Time: 21M  
 Operation Time: 1H 21M  
 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**



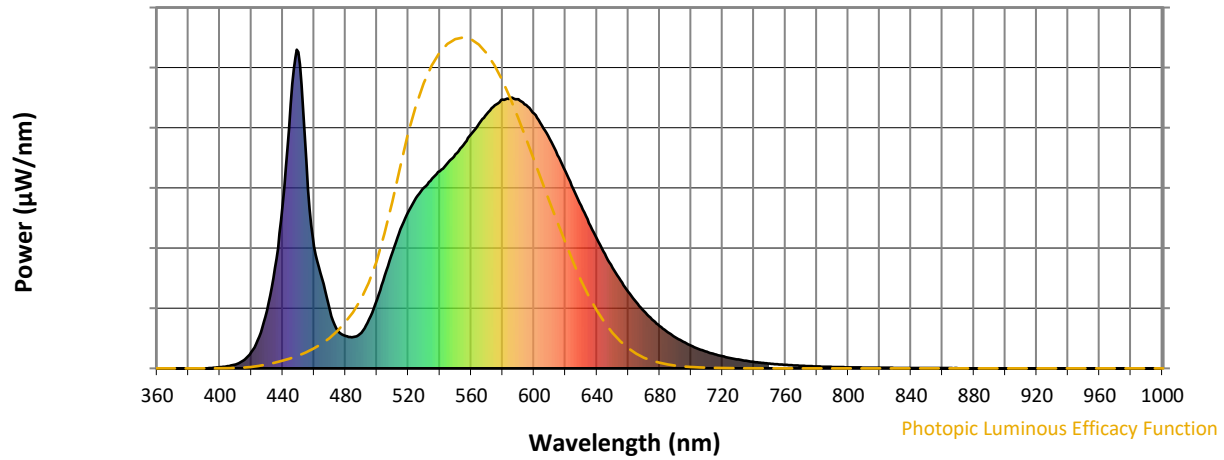
**CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles**



Point lies inside the ANSI 4000K 4-step quadrangle

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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	112	NR	620	618	NR	750	15	NR	880	0	NR
365	0	NR	495	153	NR	625	563	NR	755	13	NR	885	0	NR
370	0	NR	500	216	NR	630	510	NR	760	11	NR	890	0	NR
375	0	NR	505	291	NR	635	456	NR	765	9	NR	895	0	NR
380	0	NR	510	366	NR	640	407	NR	770	8	NR	900	0	NR
385	0	NR	515	436	NR	645	359	NR	775	7	NR	905	0	NR
390	0	NR	520	492	NR	650	316	NR	780	6	NR	910	0	NR
395	2	NR	525	536	NR	655	277	NR	785	5	NR	915	0	NR
400	4	NR	530	567	NR	660	240	NR	790	4	NR	920	0	NR
405	7	NR	535	596	NR	665	208	NR	795	4	NR	925	0	NR
410	12	NR	540	619	NR	670	179	NR	800	3	NR	930	0	NR
415	25	NR	545	644	NR	675	154	NR	805	3	NR	935	0	NR
420	51	NR	550	671	NR	680	133	NR	810	3	NR	940	0	NR
425	100	NR	555	701	NR	685	114	NR	815	2	NR	945	0	NR
430	180	NR	560	735	NR	690	98	NR	820	2	NR	950	0	NR
435	315	NR	565	768	NR	695	83	NR	825	2	NR	955	0	NR
440	514	NR	570	798	NR	700	71	NR	830	1	NR	960	0	NR
445	828	NR	575	825	NR	705	61	NR	835	1	NR	965	0	NR
450	992	NR	580	843	NR	710	52	NR	840	1	NR	970	0	NR
455	652	NR	585	848	NR	715	44	NR	845	1	NR	975	0	NR
460	382	NR	590	844	NR	720	38	NR	850	1	NR	980	0	NR
465	282	NR	595	826	NR	725	32	NR	855	1	NR	985	0	NR
470	180	NR	600	800	NR	730	28	NR	860	1	NR	990	0	NR
475	119	NR	605	762	NR	735	24	NR	865	1	NR	995	0	NR
480	101	NR	610	719	NR	740	20	NR	870	1	NR	1000	0	NR
485	98	NR	615	669	NR	745	17	NR	875	0	NR			

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**Scotopic Flux vs. Wavelength**



**Scotopic Lumens: NR**

**S/P: 1.49**

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	112	NR	620	618	NR	750	15	NR	880	0	NR
365	0	NR	495	153	NR	625	563	NR	755	13	NR	885	0	NR
370	0	NR	500	216	NR	630	510	NR	760	11	NR	890	0	NR
375	0	NR	505	291	NR	635	456	NR	765	9	NR	895	0	NR
380	0	NR	510	366	NR	640	407	NR	770	8	NR	900	0	NR
385	0	NR	515	436	NR	645	359	NR	775	7	NR	905	0	NR
390	0	NR	520	492	NR	650	316	NR	780	6	NR	910	0	NR
395	2	NR	525	536	NR	655	277	NR	785	5	NR	915	0	NR
400	4	NR	530	567	NR	660	240	NR	790	4	NR	920	0	NR
405	7	NR	535	596	NR	665	208	NR	795	4	NR	925	0	NR
410	12	NR	540	619	NR	670	179	NR	800	3	NR	930	0	NR
415	25	NR	545	644	NR	675	154	NR	805	3	NR	935	0	NR
420	51	NR	550	671	NR	680	133	NR	810	3	NR	940	0	NR
425	100	NR	555	701	NR	685	114	NR	815	2	NR	945	0	NR
430	180	NR	560	735	NR	690	98	NR	820	2	NR	950	0	NR
435	315	NR	565	768	NR	695	83	NR	825	2	NR	955	0	NR
440	514	NR	570	798	NR	700	71	NR	830	1	NR	960	0	NR
445	828	NR	575	825	NR	705	61	NR	835	1	NR	965	0	NR
450	992	NR	580	843	NR	710	52	NR	840	1	NR	970	0	NR
455	652	NR	585	848	NR	715	44	NR	845	1	NR	975	0	NR
460	382	NR	590	844	NR	720	38	NR	850	1	NR	980	0	NR
465	282	NR	595	826	NR	725	32	NR	855	1	NR	985	0	NR
470	180	NR	600	800	NR	730	28	NR	860	1	NR	990	0	NR
475	119	NR	605	762	NR	735	24	NR	865	1	NR	995	0	NR
480	101	NR	610	719	NR	740	20	NR	870	1	NR	1000	0	NR
485	98	NR	615	669	NR	745	17	NR	875	0	NR			

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**Melanopic Flux vs. Wavelength**



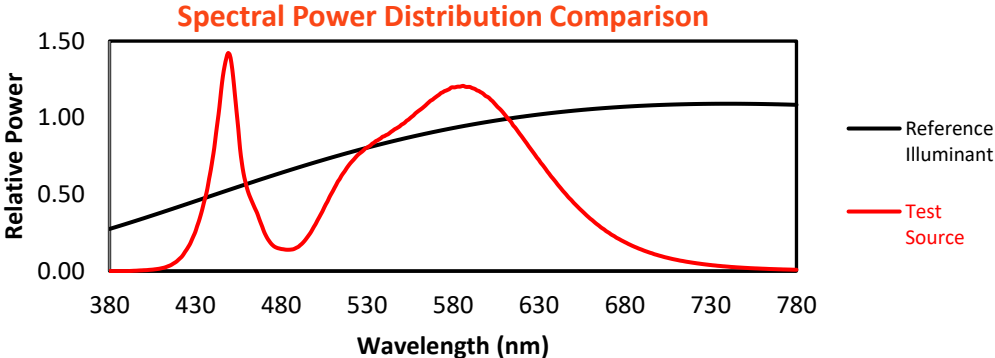
**Melanopic Lumens: NR**

**M/P: 2.88**

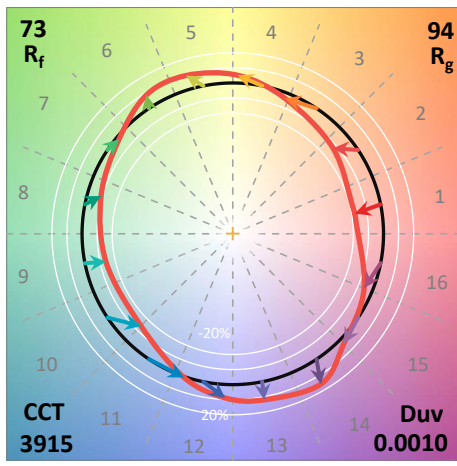
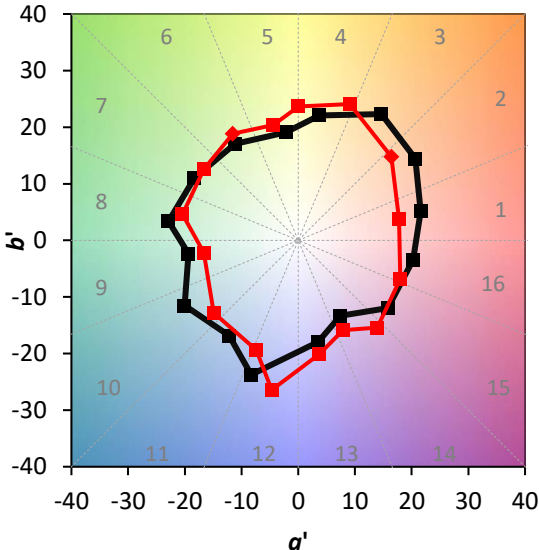
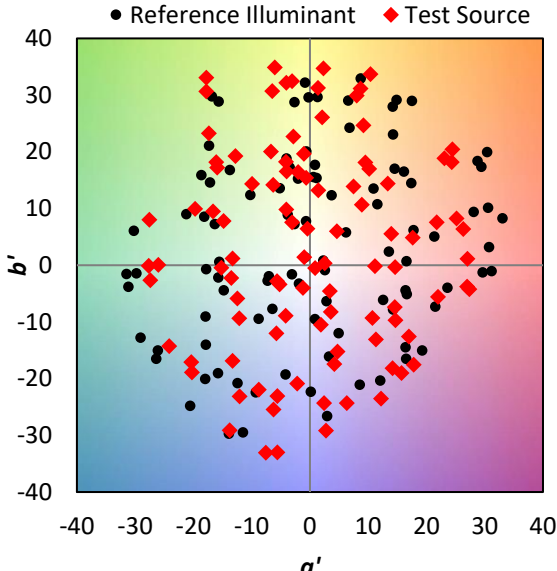
λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)
360	0	NR	490	112	NR	620	618	NR	750	15	NR	880	0	NR
365	0	NR	495	153	NR	625	563	NR	755	13	NR	885	0	NR
370	0	NR	500	216	NR	630	510	NR	760	11	NR	890	0	NR
375	0	NR	505	291	NR	635	456	NR	765	9	NR	895	0	NR
380	0	NR	510	366	NR	640	407	NR	770	8	NR	900	0	NR
385	0	NR	515	436	NR	645	359	NR	775	7	NR	905	0	NR
390	0	NR	520	492	NR	650	316	NR	780	6	NR	910	0	NR
395	2	NR	525	536	NR	655	277	NR	785	5	NR	915	0	NR
400	4	NR	530	567	NR	660	240	NR	790	4	NR	920	0	NR
405	7	NR	535	596	NR	665	208	NR	795	4	NR	925	0	NR
410	12	NR	540	619	NR	670	179	NR	800	3	NR	930	0	NR
415	25	NR	545	644	NR	675	154	NR	805	3	NR	935	0	NR
420	51	NR	550	671	NR	680	133	NR	810	3	NR	940	0	NR
425	100	NR	555	701	NR	685	114	NR	815	2	NR	945	0	NR
430	180	NR	560	735	NR	690	98	NR	820	2	NR	950	0	NR
435	315	NR	565	768	NR	695	83	NR	825	2	NR	955	0	NR
440	514	NR	570	798	NR	700	71	NR	830	1	NR	960	0	NR
445	828	NR	575	825	NR	705	61	NR	835	1	NR	965	0	NR
450	992	NR	580	843	NR	710	52	NR	840	1	NR	970	0	NR
455	652	NR	585	848	NR	715	44	NR	845	1	NR	975	0	NR
460	382	NR	590	844	NR	720	38	NR	850	1	NR	980	0	NR
465	282	NR	595	826	NR	725	32	NR	855	1	NR	985	0	NR
470	180	NR	600	800	NR	730	28	NR	860	1	NR	990	0	NR
475	119	NR	605	762	NR	735	24	NR	865	1	NR	995	0	NR
480	101	NR	610	719	NR	740	20	NR	870	1	NR	1000	0	NR
485	98	NR	615	669	NR	745	17	NR	875	0	NR			

**Summary**

$R_f = 73.2$   
 $R_g = 93.9$   
 $CIE R_a = 71.0$   
 $R_g = -38.4$



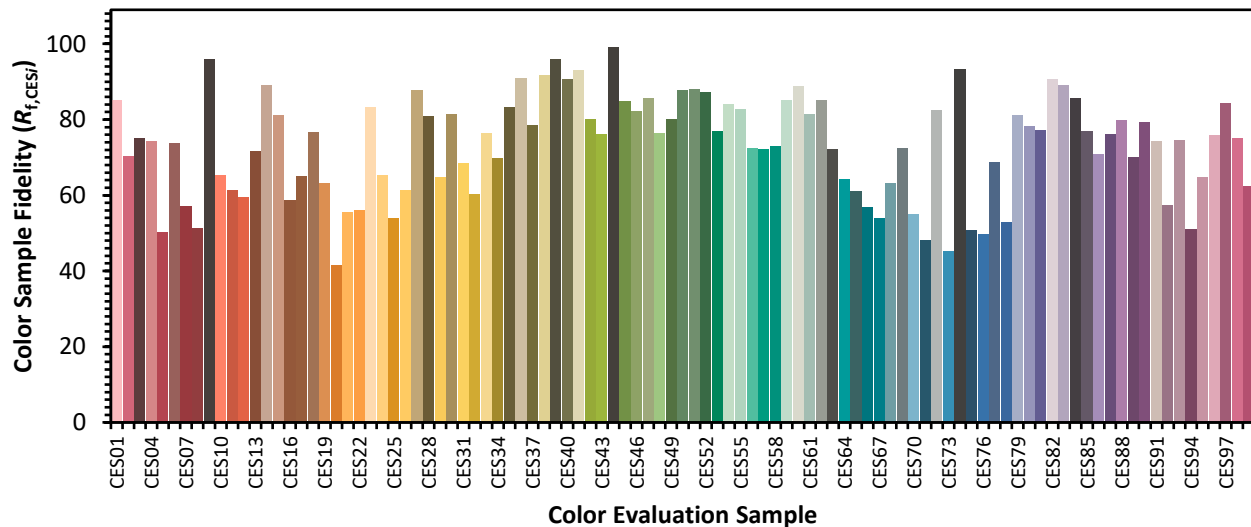
**Color Vector Graphics**



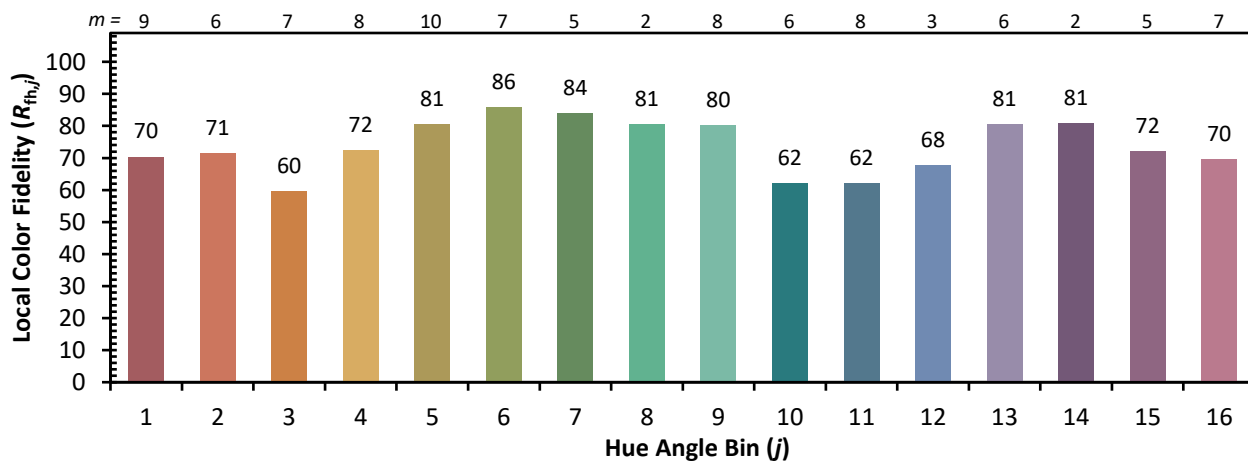
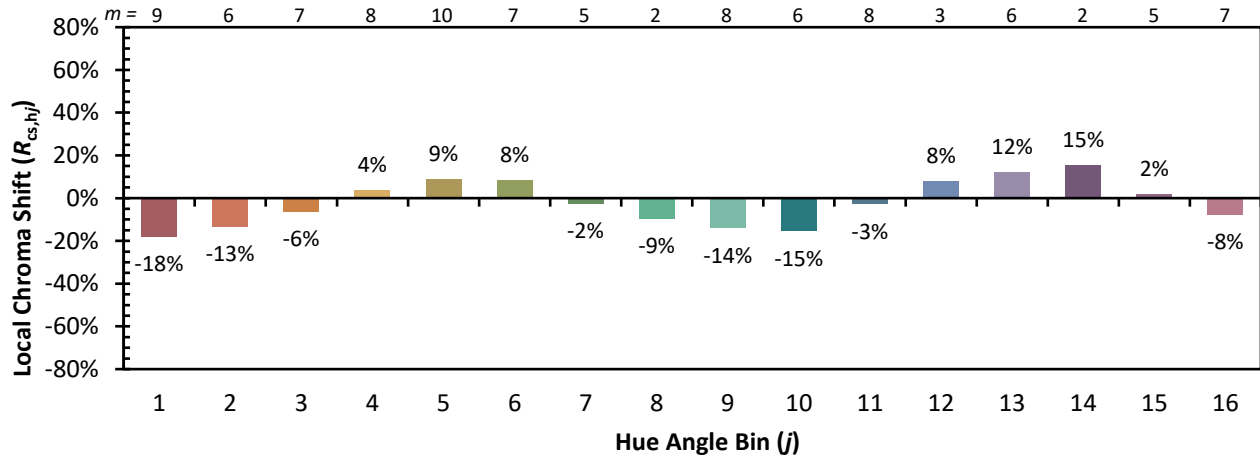


**Individual Sample Fidelity Index ( $R_{f,i}$ )**

CES01 = 85	CES26 = 61	CES51 = 88	CES76 = 50
CES02 = 61	CES27 = 88	CES52 = 87	CES77 = 69
CES03 = 30	CES28 = 81	CES53 = 77	CES78 = 53
CES04 = 70	CES29 = 65	CES54 = 84	CES79 = 81
CES05 = 47	CES30 = 81	CES55 = 83	CES80 = 78
CES06 = 50	CES31 = 69	CES56 = 73	CES81 = 77
CES07 = 40	CES32 = 60	CES57 = 72	CES82 = 91
CES08 = 39	CES33 = 76	CES58 = 73	CES83 = 89
CES09 = 29	CES34 = 70	CES59 = 85	CES84 = 86
CES10 = 74	CES35 = 83	CES60 = 89	CES85 = 77
CES11 = 57	CES36 = 91	CES61 = 81	CES86 = 71
CES12 = 63	CES37 = 79	CES62 = 85	CES87 = 76
CES13 = 42	CES38 = 92	CES63 = 72	CES88 = 80
CES14 = 74	CES39 = 96	CES64 = 64	CES89 = 70
CES15 = 71	CES40 = 91	CES65 = 61	CES90 = 79
CES16 = 46	CES41 = 93	CES66 = 57	CES91 = 74
CES17 = 49	CES42 = 80	CES67 = 54	CES92 = 57
CES18 = 56	CES43 = 76	CES68 = 63	CES93 = 74
CES19 = 72	CES44 = 99	CES69 = 73	CES94 = 51
CES20 = 65	CES45 = 85	CES70 = 55	CES95 = 65
CES21 = 86	CES46 = 82	CES71 = 48	CES96 = 76
CES22 = 78	CES47 = 86	CES72 = 83	CES97 = 84
CES23 = 92	CES48 = 77	CES73 = 45	CES98 = 75
CES24 = 91	CES49 = 80	CES74 = 93	CES99 = 62
CES25 = 72	CES50 = 88	CES75 = 51	



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)