

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: P868120

Luminaire Tested: **MEM2-HSN-SA-130-740-U-T4W**

Issue Date: 08/21/2024



**Test Information**

Test Method: LM-79-08  
Report Number: P868120  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 08/21/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: MEM2-HSN-SA-130-740-U-T4W  
Description: EPIC MODERN SHORT HOUSING DISCRETE LED ARRAYS 130W 70CRI 4000K  
FITXURE w/ TYPE IV WIDE DISTRIBUTION OPTIC  
Light Source: (30) 4000K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

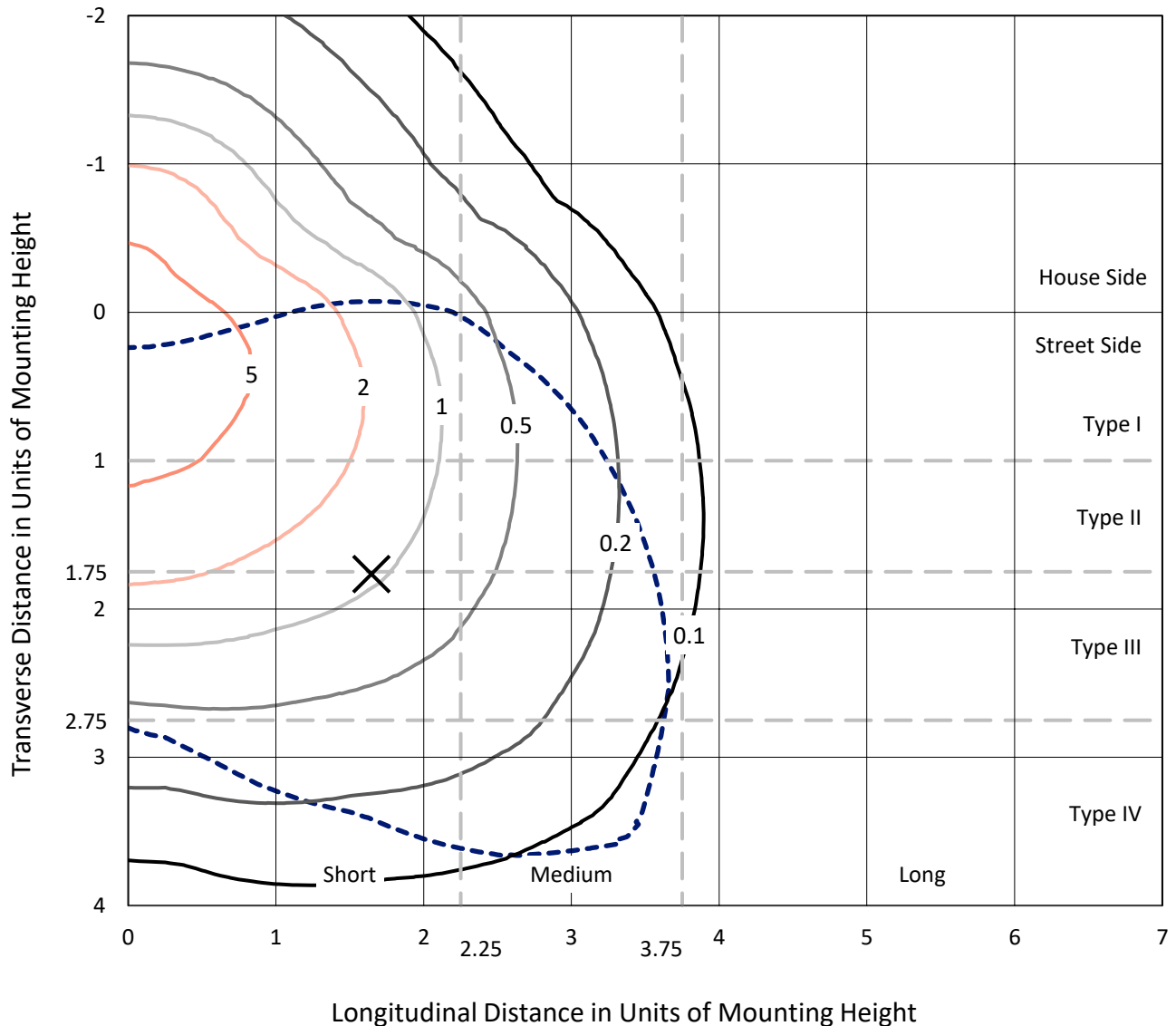
Lumens per Lamp: N/A  
Luminaire Lumens: 18795.4 lumens  
Efficiency: N/A  
Efficacy: 140.3 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 0.33' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B3 - U0 - G3

Input Watts (W): 134  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: 0.99  
Total Harmonic Distortion (THDi): 6.70%  
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-130-740-U-T4W

### Iso-Footcandle Lines of Horizontal Illumination

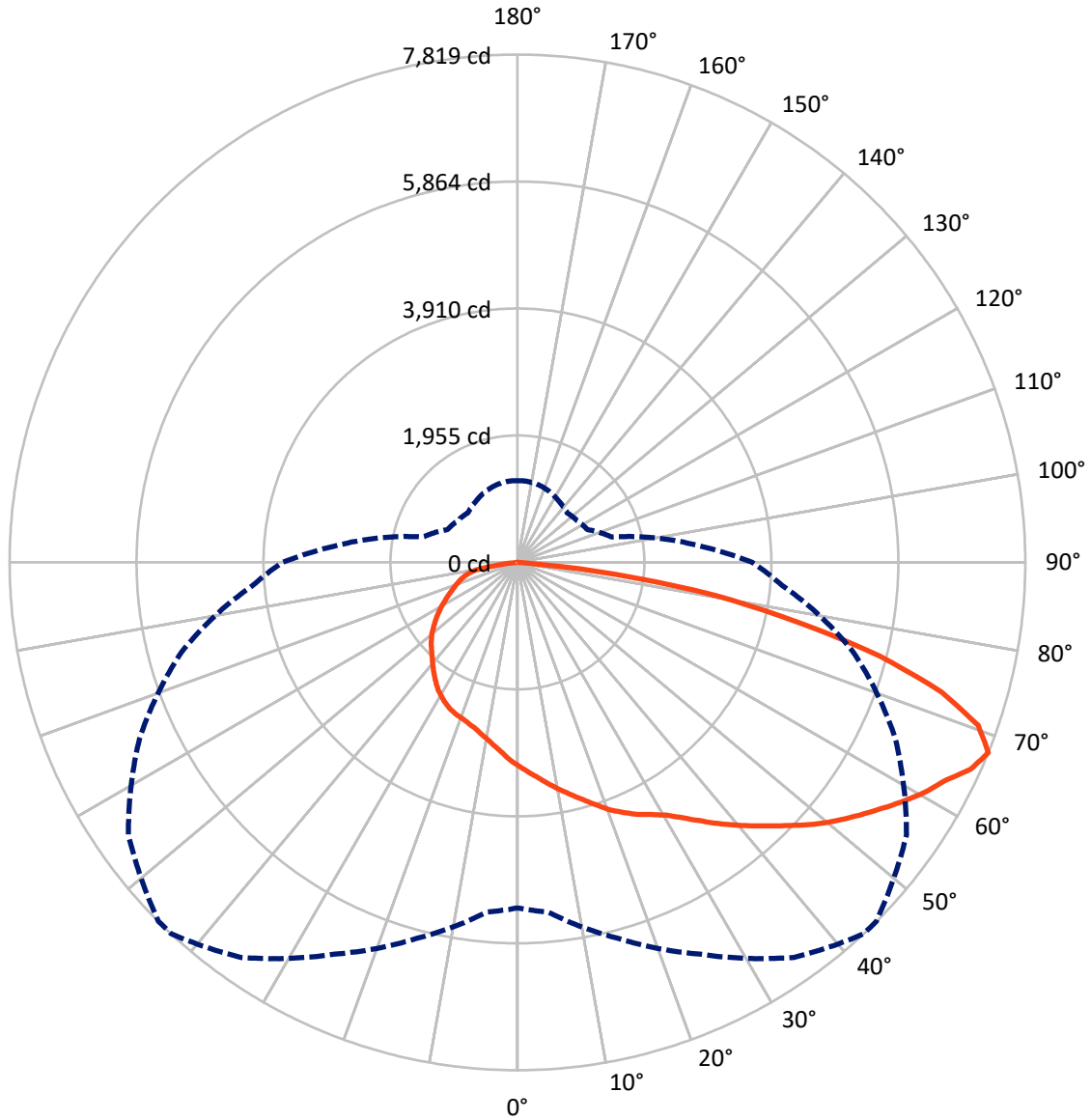
✕ Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 9 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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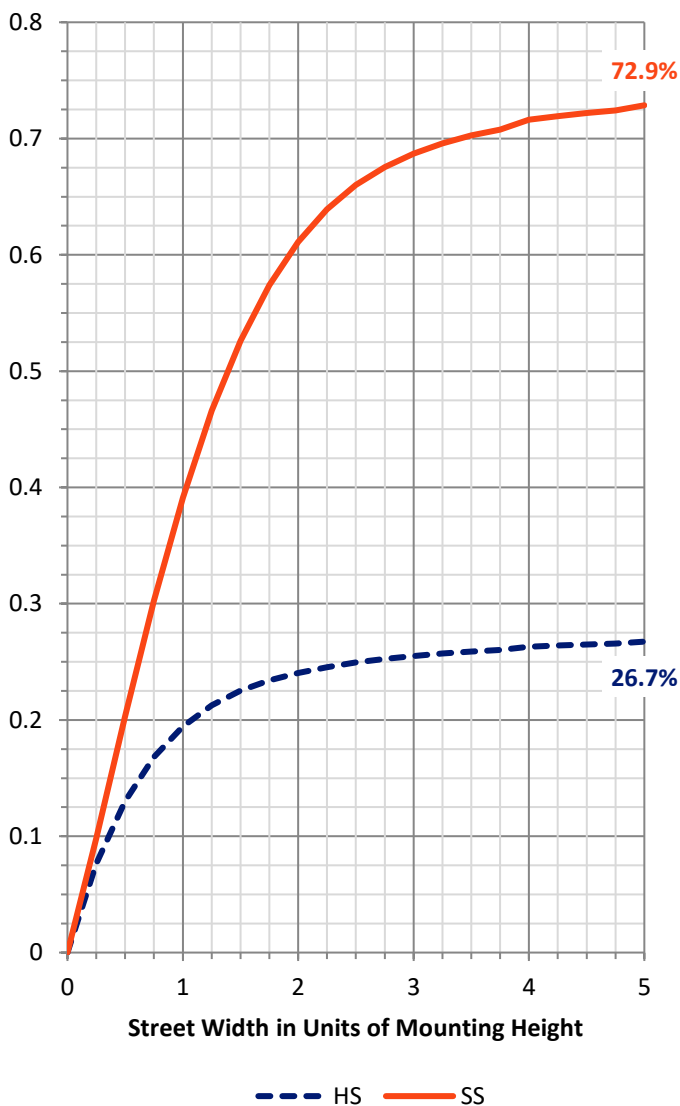
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	5056.0	0.0	5056.0
	% Fixture	26.9	0.0	26.9
<b>Street Side</b>	Lumens	13739.4	0.0	13739.4
	% Fixture	73.1	0.0	73.1
<b>Total</b>	Lumens	18795.4	0.0	18795.4
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	300.3	1.6
10°-20°	917.0	4.9
20°-30°	1564.5	8.3
30°-40°	2281.8	12.1
40°-50°	3065.3	16.3
50°-60°	3752.4	20.0
60°-70°	3949.2	21.0
70°-80°	2578.3	13.7
80°-90°	386.8	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°	18795.4	100.0
0°-180°	18795.4	100.0

**Coefficient of Utilization**



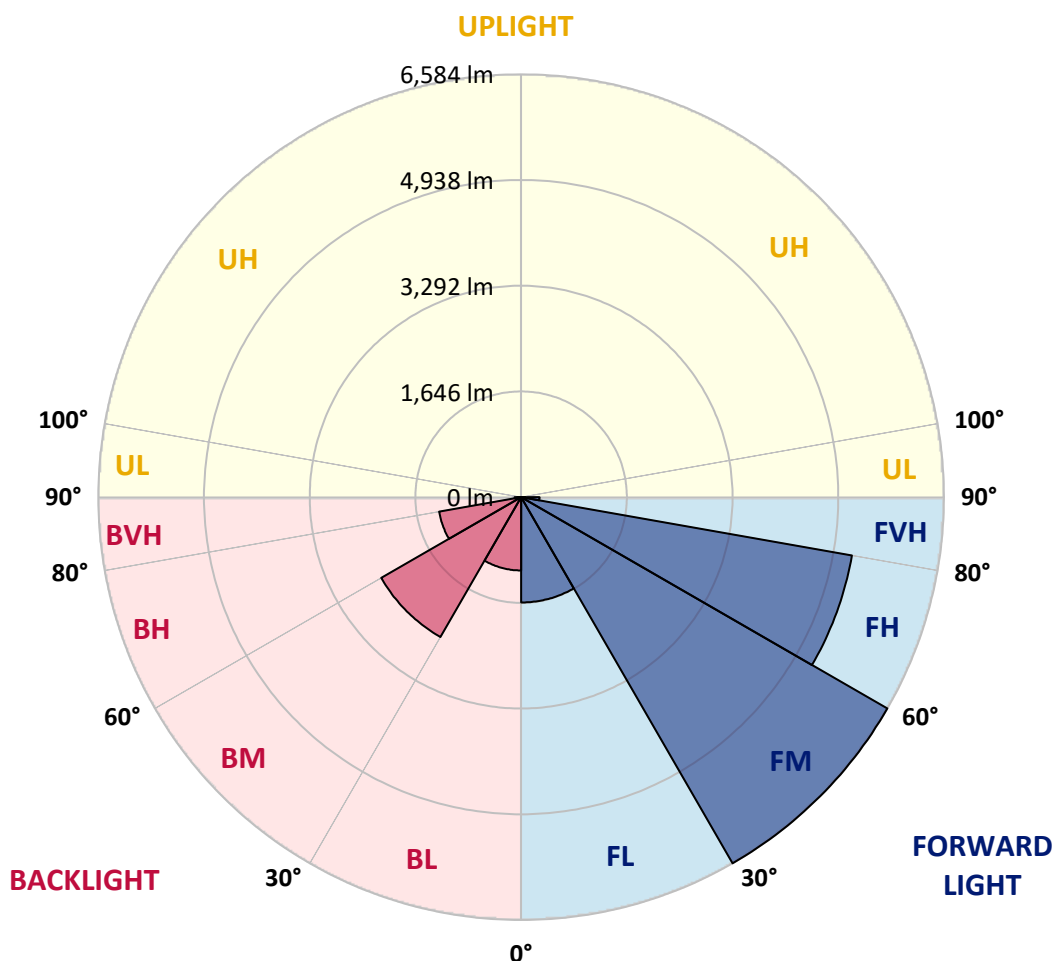
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1640.3	8.7			
FM (30°-60°)	6583.9	35.0			
FH (60°-80°)	5229.9	27.8			G3/7500
FVH (80°-90°)	285.3	1.5			G3/500
BL (0°-30°)	1141.4	6.1	B3/2500		
BM (30°-60°)	2515.6	13.4	B3/5000		
BH (60°-80°)	1297.6	6.9	B3/2500		G3/2500
BVH (80°-90°)	101.4	0.5			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

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

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	43°	45°	55°	65°	75°	85°
0°	3137.5	3137.5	3137.5	3137.5	3137.5	3137.5	3137.5	3137.5	3137.5	3137.5	3137.5
2.5°	3282.0	3278.2	3266.8	3259.2	3236.4	3232.6	3232.6	3209.8	3183.2	3167.9	3152.7
5°	3430.4	3411.3	3403.7	3388.5	3350.5	3327.7	3335.3	3293.4	3240.2	3202.2	3160.3
7.5°	3563.5	3555.9	3529.2	3510.2	3464.6	3441.8	3434.2	3369.5	3301.1	3244.0	3175.5
10°	3723.2	3704.2	3689.0	3650.9	3590.1	3555.9	3544.4	3460.8	3373.3	3297.2	3206.0
12.5°	3867.7	3844.9	3825.9	3787.8	3727.0	3669.9	3654.7	3559.7	3449.4	3346.7	3232.6
15°	3978.0	3981.8	3962.8	3928.6	3860.1	3791.6	3780.2	3654.7	3521.6	3396.1	3259.2
17.5°	4080.7	4095.9	4084.5	4061.7	3993.2	3924.8	3913.3	3772.6	3612.9	3453.2	3289.6
20°	4179.6	4179.6	4175.8	4160.5	4111.1	4065.5	4042.6	3901.9	3700.4	3514.0	3331.5
22.5°	4236.6	4251.8	4251.8	4251.8	4221.4	4183.4	4175.8	4038.8	3818.3	3590.1	3369.5
25°	4324.1	4343.1	4343.1	4335.5	4308.9	4297.5	4286.0	4156.7	3932.4	3677.6	3411.3
27.5°	4510.4	4506.6	4476.2	4438.2	4400.1	4396.3	4381.1	4289.8	4065.5	3772.6	3468.4
30°	4769.0	4776.6	4738.6	4620.7	4533.2	4514.2	4518.0	4438.2	4221.4	3882.9	3533.0
32.5°	5164.5	5164.5	5016.2	4864.1	4738.6	4689.2	4677.8	4609.3	4381.1	4004.6	3605.3
35°	5461.2	5449.8	5366.1	5187.4	5031.4	4890.7	4871.7	4780.4	4559.9	4141.5	3685.2
37.5°	5685.6	5708.4	5643.7	5506.8	5354.7	5111.3	5073.3	4944.0	4723.4	4274.6	3765.0
40°	6119.1	6062.1	5906.1	5780.6	5598.1	5328.1	5293.9	5134.1	4890.7	4423.0	3863.9
42.5°	6434.8	6354.9	6176.2	6008.8	5780.6	5544.9	5514.4	5339.5	5084.7	4590.3	3966.6
45°	6887.3	6708.6	6461.4	6313.1	5989.8	5780.6	5742.6	5552.5	5286.2	4769.0	4095.9
47.5°	7324.7	7012.8	6750.4	6682.0	6218.0	6035.4	6005.0	5784.4	5503.0	4963.0	4221.4
50°	7267.6	7062.3	6974.8	6910.1	6415.8	6275.0	6244.6	6020.2	5723.6	5168.4	4346.9
52.5°	7123.1	7142.1	7145.9	6990.0	6602.1	6499.4	6469.0	6275.0	5951.8	5347.1	4468.6
55°	7275.2	7298.1	7294.3	7058.5	6818.9	6723.8	6704.8	6533.6	6172.4	5514.4	4556.1
57.5°	7507.2	7431.2	7419.8	7229.6	7050.9	6963.4	6940.6	6792.3	6358.7	5636.1	4624.5
60°	7549.1	7396.9	7446.4	7267.6	7225.8	7199.2	7191.6	7016.6	6533.6	5735.0	4651.1
62.5°	7081.3	7054.7	7248.6	7176.4	7317.1	7393.1	7396.9	7176.4	6628.7	5773.0	4624.5
65°	6282.6	6389.1	6807.5	7016.6	7454.0	7670.8	7663.2	7271.4	6617.3	5662.7	4461.0
67.5°	5320.5	5404.1	5993.6	6655.3	7423.6	7819.1	7815.3	7313.3	6419.6	5358.5	4092.1
70°	4035.0	4297.5	5134.1	6005.0	7012.8	7526.2	7590.9	7077.5	5967.0	4803.3	3533.0
72.5°	3069.1	3110.9	4122.5	5035.2	6278.8	6830.3	6818.9	6324.5	5210.2	4046.4	2943.6
75°	2179.1	2270.4	3103.3	3901.9	5145.5	5757.8	5731.2	5187.4	4156.7	3148.9	2251.4
77.5°	1623.9	1658.1	2270.4	2894.1	3848.7	4400.1	4388.7	3833.5	3057.7	2312.3	1677.1
80°	1186.6	1243.6	1635.3	2019.4	2608.9	3084.3	3069.1	2544.2	1962.4	1616.3	1224.6
82.5°	665.5	707.4	950.8	1220.8	1376.7	1525.0	1460.4	1220.8	893.7	696.0	600.9
85°	19.0	22.8	34.2	41.8	72.3	121.7	133.1	117.9	140.7	87.5	95.1
87.5°	7.6	7.6	7.6	7.6	7.6	11.4	11.4	11.4	11.4	11.4	11.4
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: P868120

CATALOG NUMBER: MEM2-HSN-SA-130-740-U-T4W

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3137.5	3137.5	3137.5	3137.5	3137.5	3137.5	3137.5	3137.5	3137.5	3137.5	3137.5
2.5°	3145.1	3129.9	3099.5	3080.5	3069.1	3053.9	3031.0	3015.8	3004.4	3019.6	3015.8
5°	3141.3	3110.9	3057.7	3019.6	2981.6	2951.2	2916.9	2890.3	2875.1	2882.7	2878.9
7.5°	3141.3	3103.3	3019.6	2958.8	2901.7	2856.1	2818.1	2783.8	2768.6	2772.4	2768.6
10°	3156.5	3103.3	2993.0	2905.5	2829.5	2776.2	2734.4	2704.0	2692.6	2704.0	2707.8
12.5°	3171.7	3103.3	2970.2	2859.9	2761.0	2704.0	2665.9	2646.9	2654.5	2658.3	2662.1
15°	3179.4	3099.5	2947.4	2806.7	2696.4	2635.5	2612.7	2608.9	2627.9	2646.9	2650.7
17.5°	3198.4	3095.7	2913.1	2753.4	2639.3	2589.9	2578.5	2593.7	2631.7	2658.3	2665.9
20°	3221.2	3103.3	2875.1	2688.8	2582.3	2544.2	2563.3	2597.5	2643.1	2681.2	2688.8
22.5°	3244.0	3107.1	2840.9	2631.7	2521.4	2513.8	2555.7	2605.1	2658.3	2696.4	2704.0
25°	3270.6	3107.1	2795.2	2559.5	2460.6	2472.0	2536.6	2601.3	2650.7	2700.2	2707.8
27.5°	3297.2	3114.7	2745.8	2479.6	2384.5	2418.7	2498.6	2578.5	2631.7	2681.2	2692.6
30°	3342.9	3129.9	2704.0	2411.1	2308.5	2354.1	2449.2	2540.4	2597.5	2650.7	2662.1
32.5°	3388.5	3152.7	2669.7	2338.9	2232.4	2285.6	2392.1	2494.8	2555.7	2605.1	2612.7
35°	3449.4	3183.2	2643.1	2266.6	2156.3	2198.2	2312.3	2426.3	2494.8	2532.8	2551.8
37.5°	3514.0	3225.0	2620.3	2202.0	2072.7	2110.7	2232.4	2354.1	2426.3	2464.4	2472.0
40°	3593.9	3282.0	2605.1	2141.1	1992.8	2023.2	2144.9	2278.0	2346.5	2373.1	2388.3
42.5°	3681.4	3342.9	2593.7	2080.3	1905.3	1935.8	2065.1	2194.4	2262.8	2285.6	2297.0
45°	3791.6	3422.7	2586.1	2015.6	1833.1	1859.7	1989.0	2118.3	2175.3	2205.8	2217.2
47.5°	3894.3	3502.6	2563.3	1939.6	1753.2	1791.2	1909.1	2023.2	2087.9	2106.9	2118.3
50°	3997.0	3571.1	2517.6	1855.9	1680.9	1715.2	1821.7	1905.3	1954.8	1977.6	1985.2
52.5°	4095.9	3620.5	2445.4	1768.4	1604.9	1627.7	1715.2	1795.0	1829.3	1836.9	1859.7
55°	4160.5	3647.1	2342.7	1665.7	1528.8	1536.4	1601.1	1673.3	1692.4	1696.2	1696.2
57.5°	4206.2	3631.9	2221.0	1563.1	1452.8	1452.8	1490.8	1547.8	1555.4	1559.3	1566.9
60°	4213.8	3578.7	2065.1	1468.0	1369.1	1357.7	1395.7	1429.9	1433.8	1441.4	1449.0
62.5°	4156.7	3460.8	1897.7	1376.7	1289.2	1262.6	1296.8	1331.1	1350.1	1361.5	1369.1
65°	3981.8	3221.2	1707.6	1285.4	1213.2	1167.5	1209.4	1266.4	1304.4	1308.3	1308.3
67.5°	3616.7	2833.3	1506.0	1190.4	1121.9	1080.1	1133.3	1194.2	1239.8	1258.8	1255.0
70°	3065.3	2403.5	1319.7	1091.5	1030.6	1004.0	1061.1	1129.5	1167.5	1182.7	1190.4
72.5°	2468.2	1924.3	1156.1	992.6	950.8	935.6	992.6	1061.1	1114.3	1137.1	1140.9
75°	1920.5	1513.6	1019.2	889.9	855.7	859.5	920.3	988.8	1045.8	1057.2	1023.0
77.5°	1490.8	1205.6	889.9	768.2	749.2	775.8	836.7	908.9	943.2	954.6	931.7
80°	1076.3	924.1	718.8	604.7	604.7	646.5	699.8	783.4	794.8	779.6	787.2
82.5°	509.6	448.8	353.7	292.8	273.8	304.2	323.3	349.9	380.3	387.9	368.9
85°	68.5	45.6	34.2	38.0	34.2	22.8	15.2	15.2	15.2	11.4	11.4
87.5°	11.4	11.4	7.6	7.6	7.6	7.6	7.6	7.6	3.8	3.8	3.8
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**

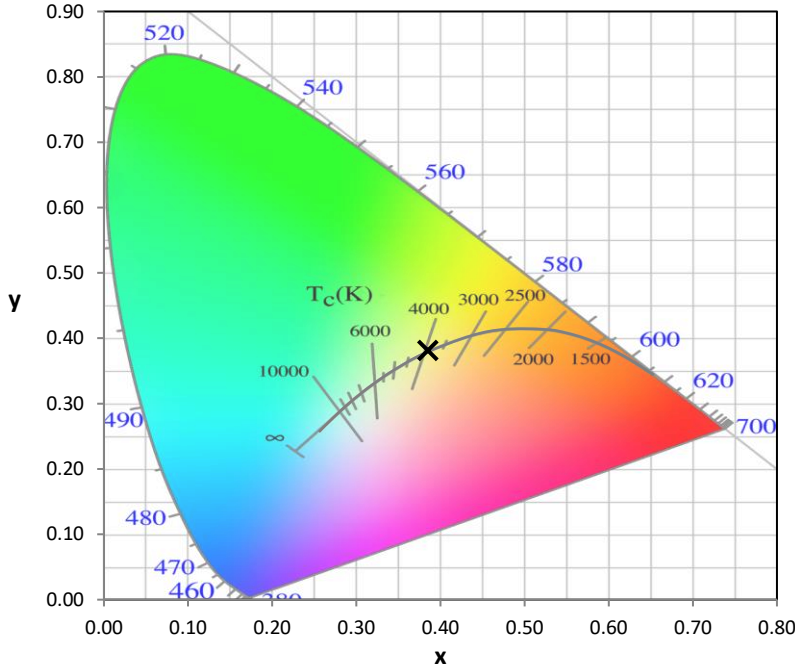
Stabilization Time: 21M  
 Operation Time: 1H 21M  
 Sphere Temperature (°C): 24.2

REPORT NUMBER: SP1-2407-157-5

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



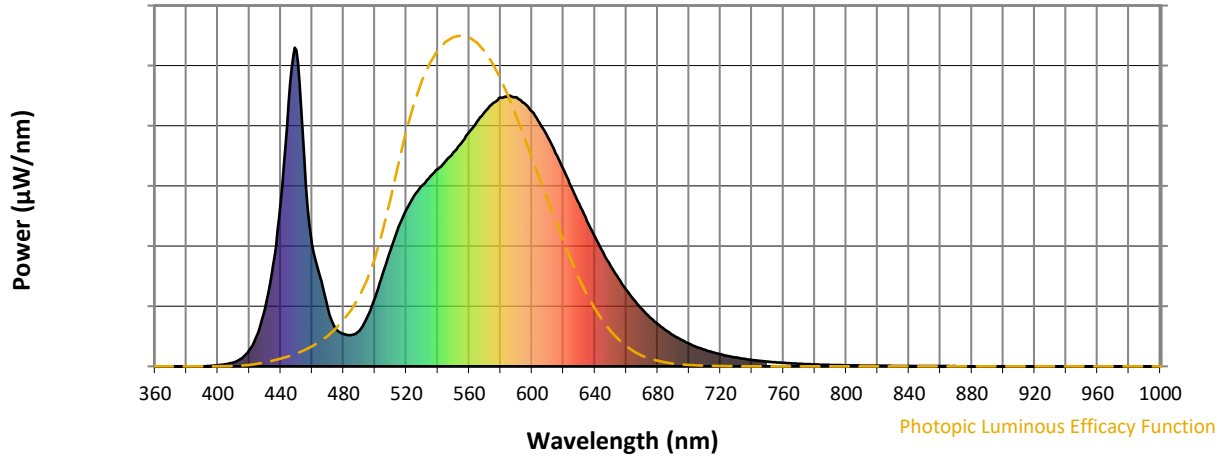
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 4000K 4-step quadrangle

REPORT NUMBER: SP1-2407-157-5

**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



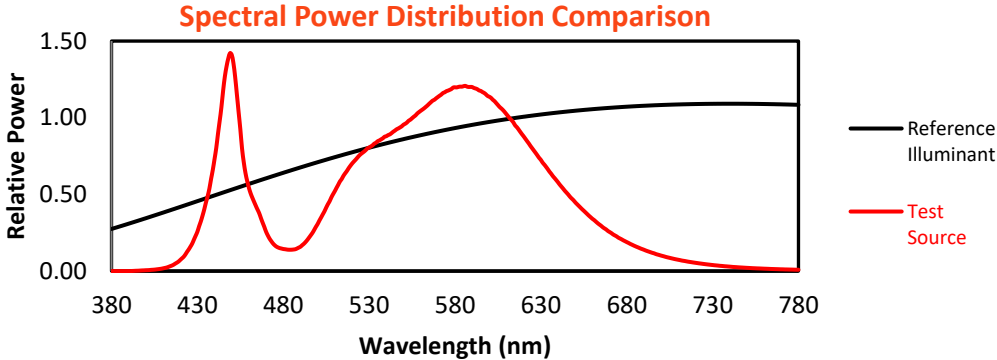
Melanopic Lumens: NR

M/P: 2.88

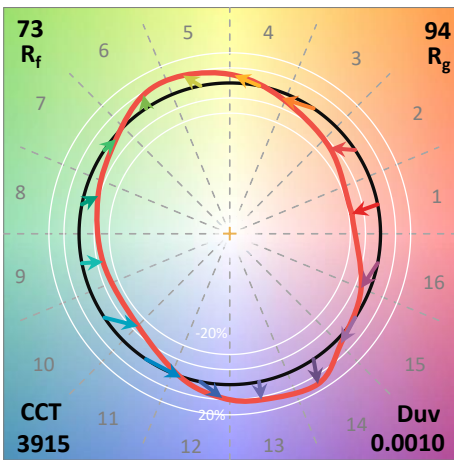
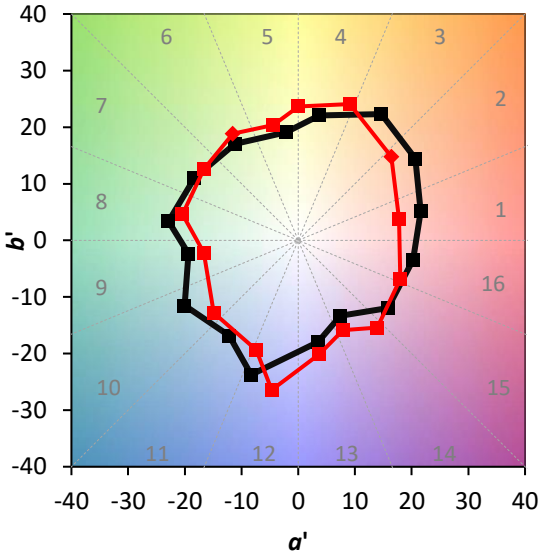
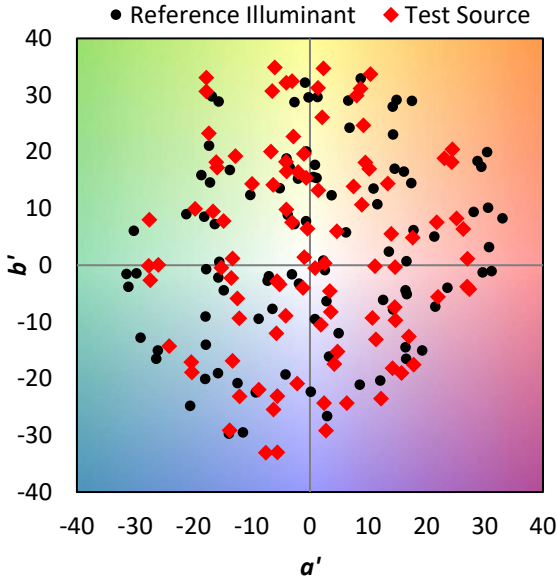
λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)
360	0	NR	490	112	NR	620	618	NR	750	15	NR	880	0	NR
365	0	NR	495	153	NR	625	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**

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



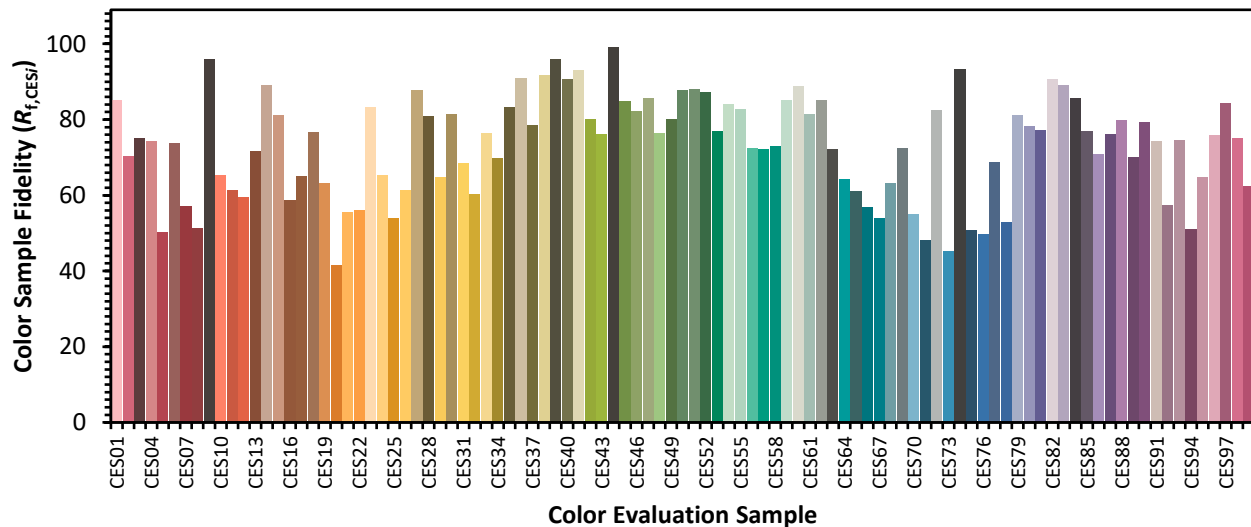
**Color Vector Graphics**



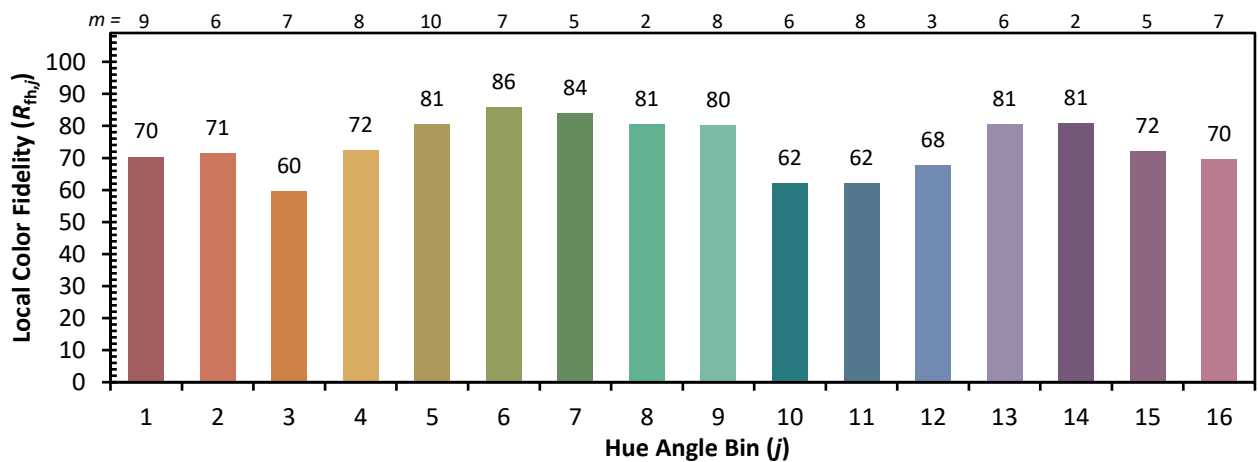
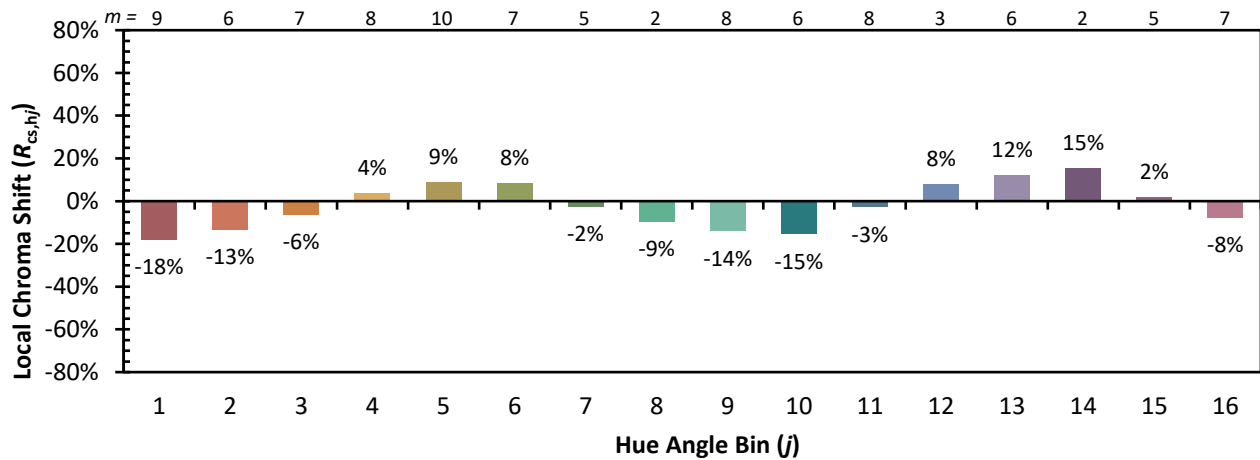


**Individual Sample Fidelity Index ( $R_{f,i}$ )**

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)