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: P879575

Luminaire Tested: **MEM2-HSN-VA-130-730-U-MQ**

Issue Date: 10/01/2024

Report Generated By 670245763

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report

Test Information

Test Method:	LM-79-08
Report Number:	P879575
Test Lab:	INNOVATION CENTER(G3)
Issue Date:	10/01/2024
Manufacturer:	COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line:	STREETWORKS
Catalog Number:	MEM2-HSN-VA-130-730-U-MQ
Description:	EPIC MODERN SHORT HOUSING 130W 70CRI 3000K VISUAL COMFORT FIXTURE w/ TYPE V MEDIUM DISTRIBUTION OPTIC
Light Source:	(1) 3000K CCT, 70 CRI LEDS
Ballast/Driver:	ELECTRONIC DRIVER

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	14713.7 lumens
Efficiency:	N/A
Efficacy:	113.2 lumens/watt
Luminous Opening:	Circular (Dia: 1.12' x H: 0')
IES Classification:	Type V - Short
BUG Rating:	B3 - U0 - G3

Input Watts (W):	130
Input Voltage (V):	120
Input Current (Ain):	NR
Voltage Rise (V):	NR
Power Factor:	0.995
Total Harmonic Distortion (THDi):	8.1%
Frequency (hertz):	60
Stabilization Time:	NR
Operation Time:	NR
Ambient Temperature (°C):	NR
Test Distance:	24 FT

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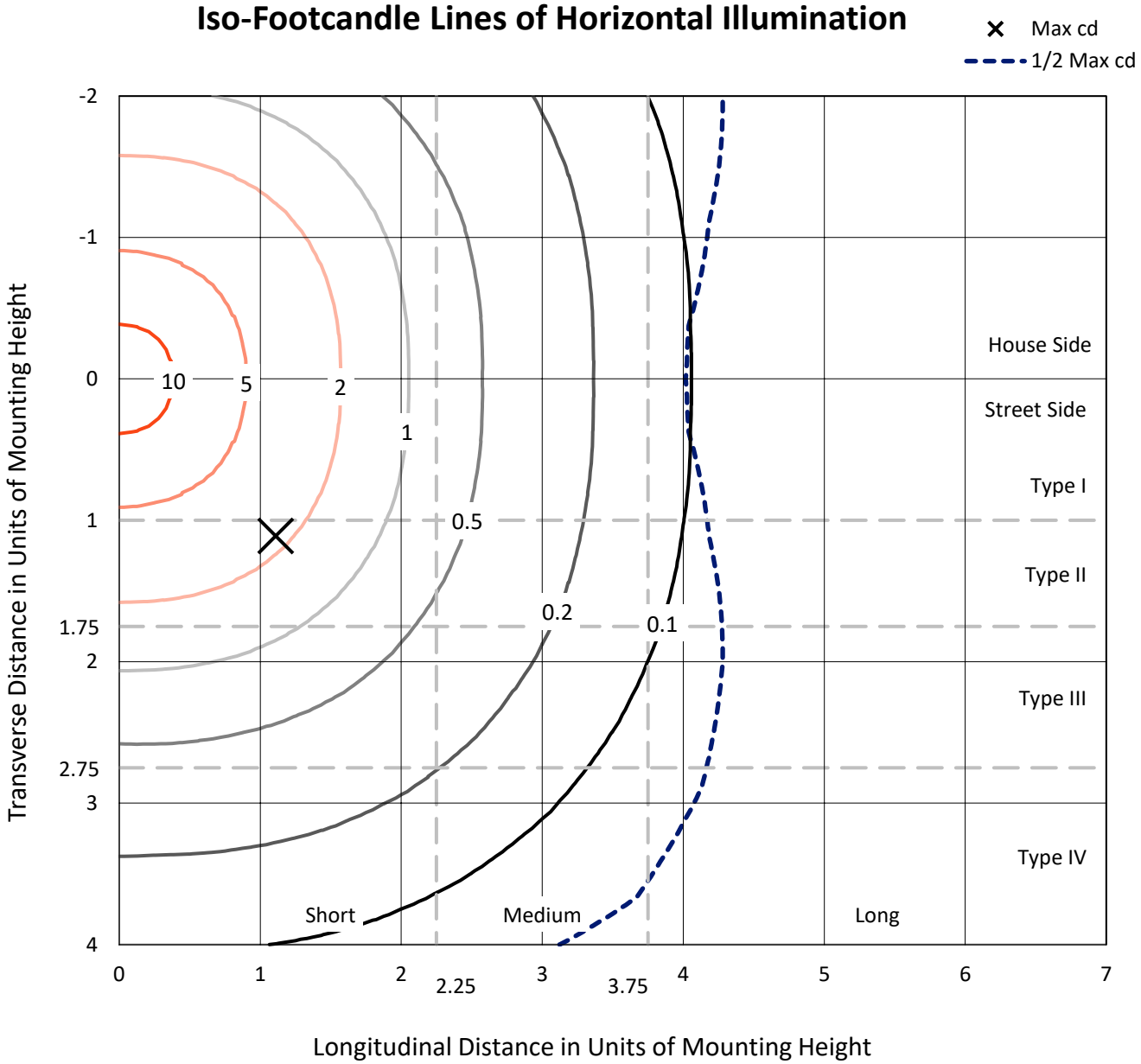
Scaled Data Report

REPORT NUMBER: P879575
CATALOG NUMBER: MEM2-HSN-VA-130-730-U-MQ

Iso-Footcandle Lines of Horizontal Illumination



Based on 15 foot mounting height. Maximum calculated value = 13.2 fc
Type V - Short - N/A

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REPORT NUMBER: P879575
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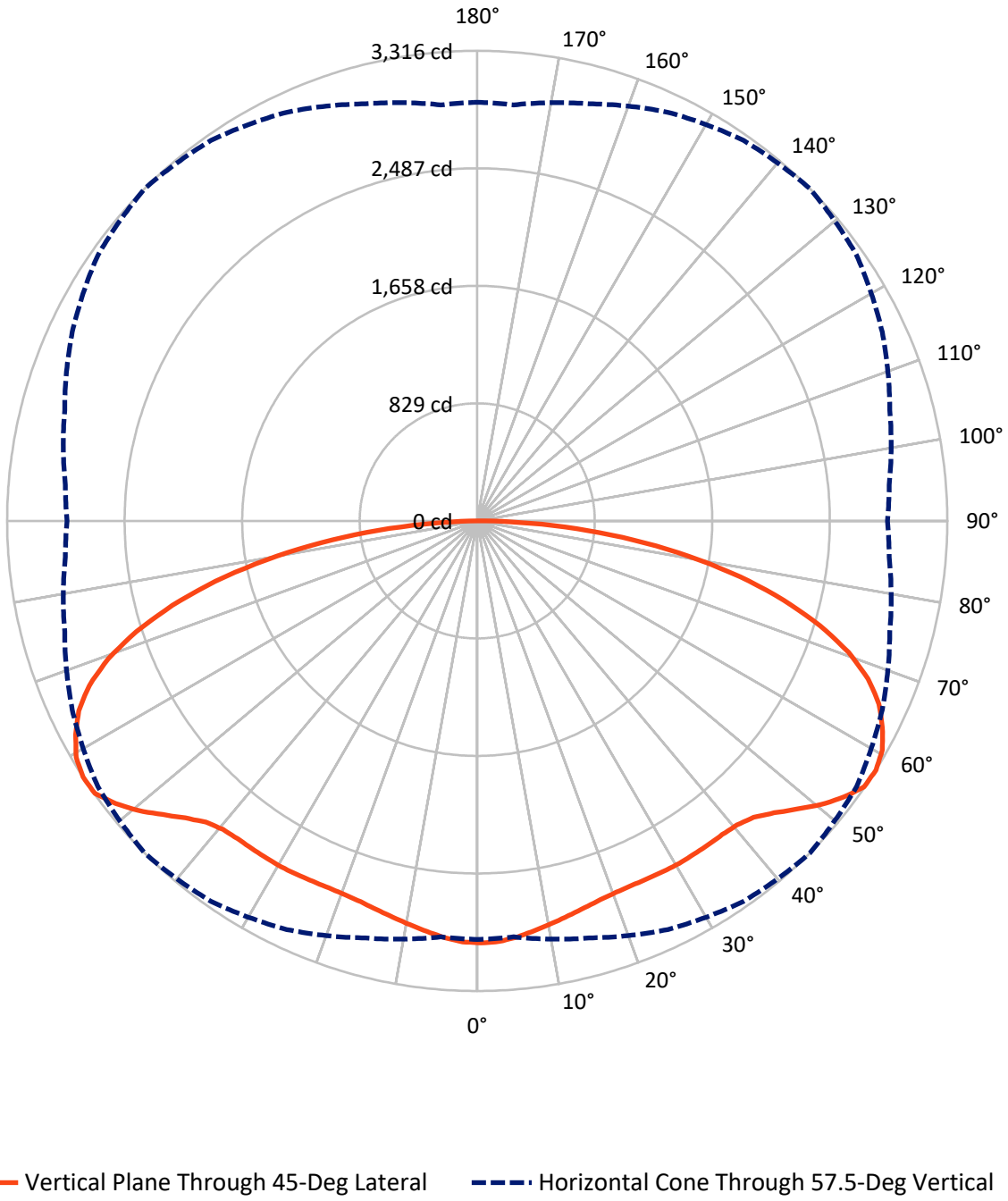
Luminous Intensity Polar Plot



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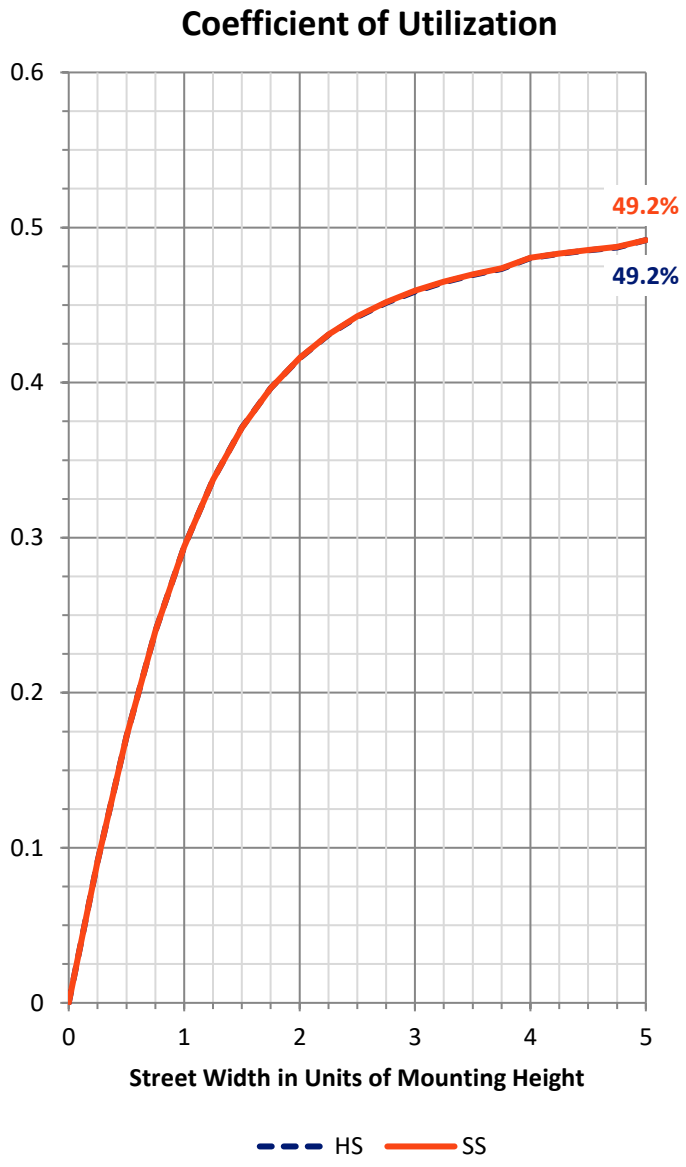
REPORT NUMBER: P879575
CATALOG NUMBER: MEM2-HSN-VA-130-730-U-MQ

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	7356.9	0.0	7356.9
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	7356.9	0.0	7356.9
	% Fixture	50.0	0.0	50.0
Total	Lumens	14713.7	0.0	14713.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	279.4	1.9
10°-20°	800.9	5.4
20°-30°	1287.1	8.7
30°-40°	1744.7	11.9
40°-50°	2228.3	15.1
50°-60°	2777.4	18.9
60°-70°	2830.1	19.2
70°-80°	2097.0	14.3
80°-90°	668.7	4.5
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°	14713.7	100.0
0°-180°	14713.7	100.0



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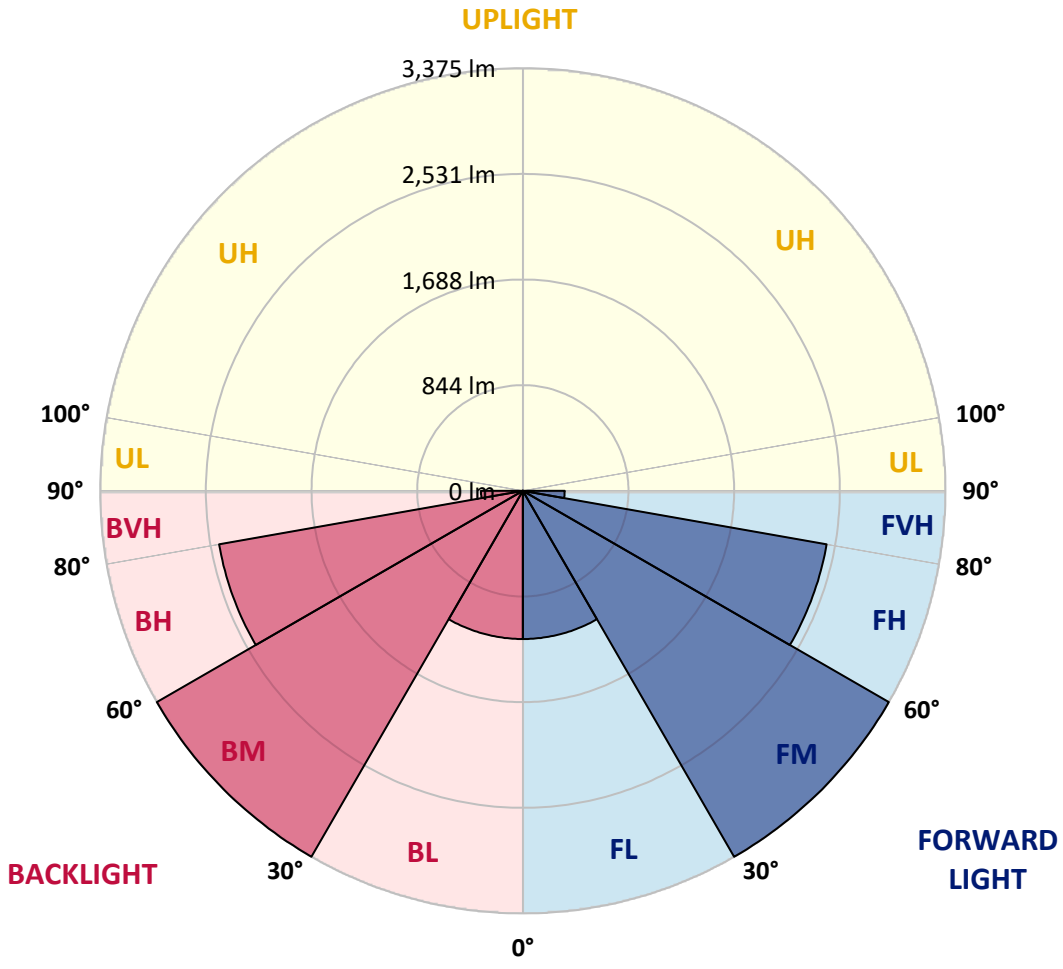
Scaled Data Report

REPORT NUMBER: P879575
CATALOG NUMBER: MEM2-HSN-VA-130-730-U-MQ

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	1183.7	8.0			
FM	(30°-60°)	3375.2	22.9			
FH	(60°-80°)	2463.5	16.7			G2/5000
FVH	(80°-90°)	334.3	2.3			G3/500
BL	(0°-30°)	1183.7	8.0	B3/2500		
BM	(30°-60°)	3375.2	22.9	B3/5000		
BH	(60°-80°)	2463.5	16.7	B3/2500		G2/5000
BVH	(80°-90°)	334.3	2.3			G3/500
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3
Type V Short



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REPORT NUMBER: P879575
CATALOG NUMBER: MEM2-HSN-VA-130-730-U-MQ

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	2976.5	2976.5	2976.5	2976.5	2976.5	2976.5	2976.5	2976.5	2976.5	2976.5	2976.5
2.5°	2971.4	2971.4	2970.6	2970.6	2969.9	2970.6	2971.4	2971.4	2970.6	2969.9	2969.2
5°	2950.1	2950.9	2950.9	2949.4	2947.9	2947.9	2947.9	2948.7	2947.2	2947.9	2947.2
7.5°	2919.4	2917.2	2919.4	2918.6	2919.4	2917.2	2920.8	2919.4	2917.2	2918.6	2918.6
10°	2885.0	2885.7	2886.4	2885.7	2887.9	2887.1	2886.4	2885.7	2884.2	2885.7	2883.5
12.5°	2852.7	2853.5	2855.7	2856.4	2858.6	2857.9	2858.6	2857.1	2856.4	2853.5	2852.7
15°	2822.0	2823.4	2826.4	2828.6	2830.8	2831.5	2830.0	2829.3	2825.6	2823.4	2822.0
17.5°	2796.3	2796.3	2800.7	2804.4	2808.0	2808.8	2808.0	2804.4	2799.3	2794.1	2794.9
20°	2778.8	2778.8	2783.9	2789.7	2794.9	2796.3	2794.1	2787.5	2779.5	2775.8	2775.1
22.5°	2770.7	2771.4	2776.6	2783.1	2790.5	2791.9	2787.5	2779.5	2770.7	2764.1	2763.4
25°	2771.4	2770.0	2774.4	2784.6	2792.7	2794.1	2790.5	2779.5	2769.2	2763.4	2761.2
27.5°	2769.2	2770.0	2775.1	2785.3	2795.6	2798.5	2792.7	2779.5	2765.6	2760.4	2759.0
30°	2768.5	2769.2	2770.7	2787.5	2799.3	2804.4	2795.6	2778.0	2766.3	2758.2	2757.5
32.5°	2765.6	2761.9	2772.2	2782.4	2797.1	2803.7	2794.9	2778.8	2759.7	2753.9	2750.9
35°	2753.9	2757.5	2766.3	2783.9	2800.7	2805.1	2794.9	2775.1	2758.2	2746.5	2745.8
37.5°	2751.7	2751.7	2765.6	2783.9	2800.7	2807.3	2798.5	2776.6	2753.1	2738.5	2738.5
40°	2748.7	2748.0	2766.3	2789.0	2811.0	2819.8	2808.0	2780.9	2752.4	2738.5	2731.1
42.5°	2756.8	2761.2	2782.4	2815.4	2843.2	2857.9	2841.0	2811.0	2777.3	2750.9	2750.2
45°	2794.9	2804.4	2826.4	2882.0	2919.4	2937.0	2917.2	2865.2	2812.4	2777.3	2775.1
47.5°	2854.2	2851.3	2903.3	2961.9	3016.8	3035.8	3007.3	2946.5	2870.3	2827.8	2816.8
50°	2895.2	2902.5	2956.0	3041.0	3123.0	3145.0	3103.2	3024.8	2942.1	2883.5	2873.2
52.5°	2950.9	2952.3	3020.4	3128.1	3212.3	3236.5	3196.2	3098.8	2987.5	2914.2	2909.1
55°	2957.5	2981.6	3064.4	3181.6	3282.6	3311.2	3261.4	3157.4	3027.8	2937.0	2928.2
57.5°	2952.3	2945.0	3045.3	3180.1	3275.3	3315.6	3266.5	3151.5	3012.4	2916.4	2893.0
60°	2846.9	2877.6	2988.2	3120.1	3242.4	3282.6	3225.5	3108.3	2956.0	2850.5	2841.0
62.5°	2775.1	2788.3	2889.3	3066.6	3166.9	3207.2	3163.3	3025.6	2863.0	2753.1	2739.9
65°	2663.0	2673.3	2791.9	2937.7	3077.6	3113.5	3057.1	2941.3	2767.0	2646.2	2622.0
67.5°	2484.3	2512.2	2629.3	2814.6	2911.3	2972.8	2922.3	2759.7	2601.5	2482.9	2465.3
70°	2276.3	2313.7	2434.5	2586.1	2747.3	2778.0	2708.4	2597.8	2420.6	2293.9	2263.1
72.5°	2075.6	2078.6	2191.4	2369.3	2471.1	2528.3	2488.7	2343.0	2169.4	2061.7	2042.7
75°	1795.1	1795.9	1919.6	2065.4	2194.3	2231.6	2168.7	2066.1	1911.6	1790.7	1779.0
77.5°	1469.9	1489.7	1599.6	1740.2	1842.0	1896.2	1851.5	1735.8	1591.5	1488.3	1476.5
80°	1152.8	1177.7	1255.3	1381.3	1469.2	1516.8	1468.5	1367.4	1257.5	1156.5	1157.9
82.5°	813.7	832.0	905.3	990.9	1076.6	1111.8	1091.3	1016.6	916.2	827.6	803.5
85°	454.1	477.5	526.6	602.0	659.2	704.6	678.9	620.3	533.2	477.5	476.1
87.5°	133.3	144.3	164.1	214.6	268.8	288.6	282.7	268.1	235.1	210.9	195.6
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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LM-79-2019: Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

Report Prepared for

Cooper Lighting Solutions

Streetworks

Report Number: SP1-2407-176-20

Test Date: 10/23/2024

Luminaire Tested: MEM2-HTN-VA-150-740-U-WQ

Data in this report applies to families of products including MEM2-HTN-VA-150-740-U-WQ

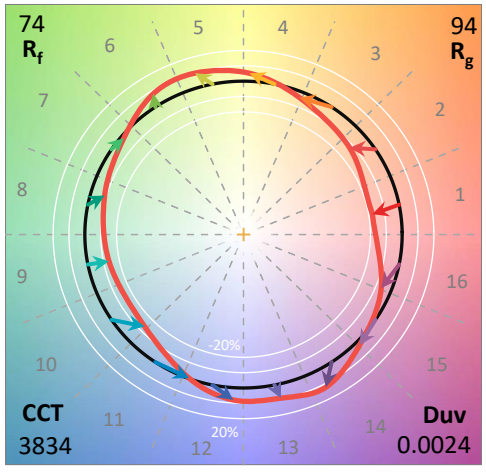
Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

Test Information

Test Method:	LM-79-2019
Report Number:	SP1-2407-176-20
Test Lab:	COOPER LIGHTING SOLUTIONS
Photometer:	SP1 - 76IN SPHERE
Measurement Geometry:	4π
Issue Date:	10/23/2024
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	Streetworks
Catalog Number:	**MEM2-HTN-VA-150-740-U-WQ**
Description:	EPIC MODERN VISUAL COMFORT 150W WAVESTREAM WIDE

Spectral Parameters

CCT (K):	3834	CRI (Ra):	71.3		
CIE u':	0.2270	R1:	67.4	R9:	-37.8
CIE v':	0.5077	R2:	78.6	R10:	50.1
Duv:	0.0024	R3:	88.2	R11:	65.6
CIE x:	0.3900	R4:	70.0	R12:	44.1
CIE y:	0.3877	R5:	67.5	R13:	69.2
CIE z:	0.2223	R6:	70.1	R14:	93.3
Peak Wavelength (nm):	585	R7:	80.0	R15:	59.4
Dominant Wavelength (nm):	578	R8:	48.5		
Purity:	33.41599				
Rf:	74.4				
Rg:	93.6				



Test Conditions

Stabilization Time:	30M
Operation Time:	1H 30M
Sphere Temperature (°C):	25.1

REPORT NUMBER: SP1-2407-176-20

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	10/22/2024	10/22/2025
DC Power Source	IN0208	10/22/2024	10/22/2025
Sphere Thermometer	IN0085	10/22/2024	10/22/2025
Room Thermometer	IN0046	10/22/2024	10/22/2025

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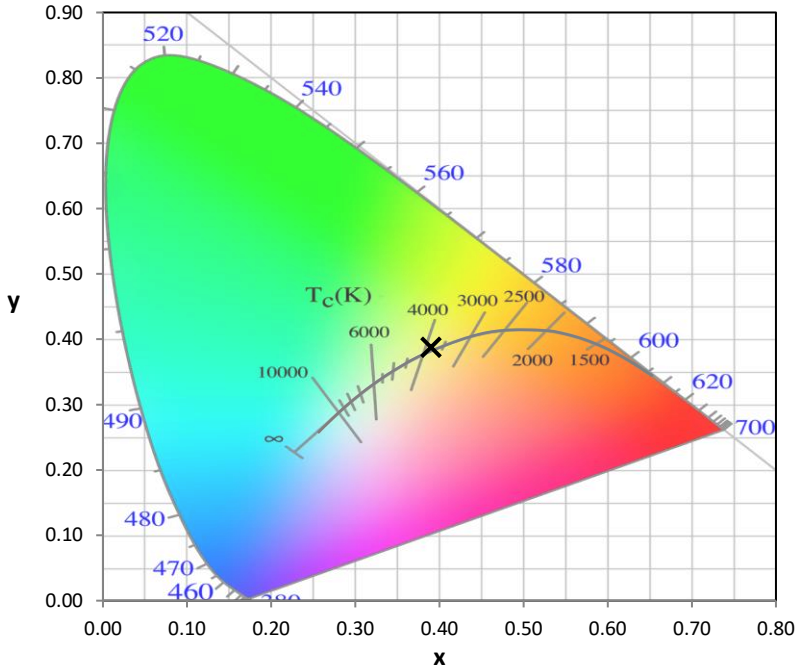
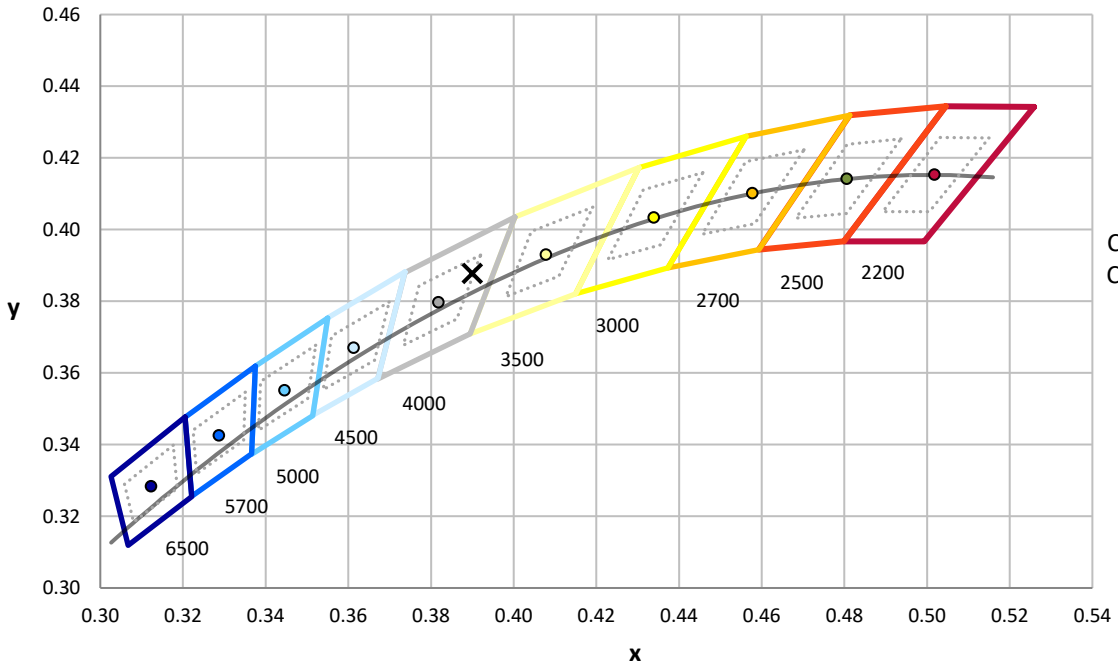
CIE 1931 Chromaticity Diagram



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



CCT = 3834K
CIE x = 0.3900
CIE y = 0.3877
Duv = 0.0024

Point lies inside the ANSI 4000K 4-step quadrangle

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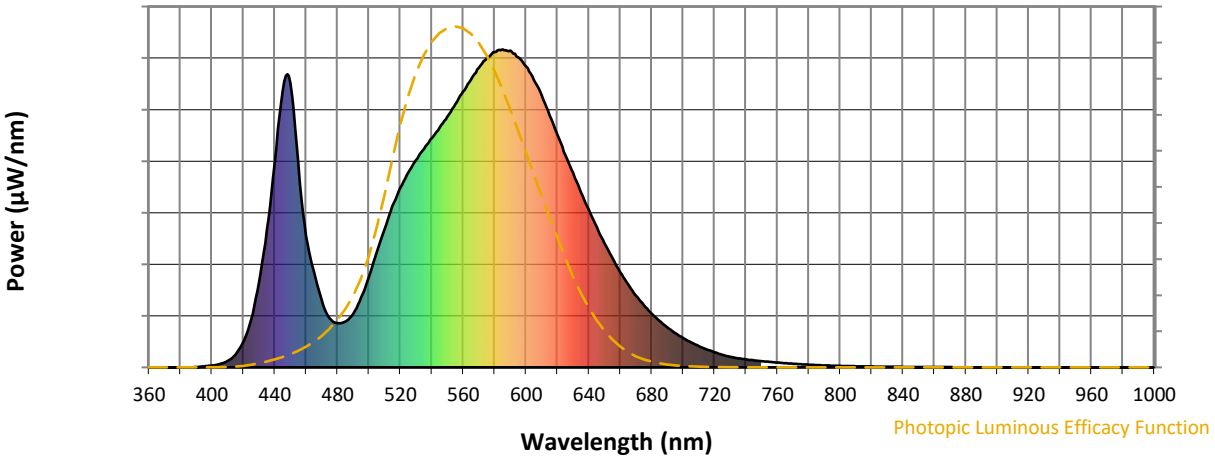
Photopic Flux vs. Wavelength

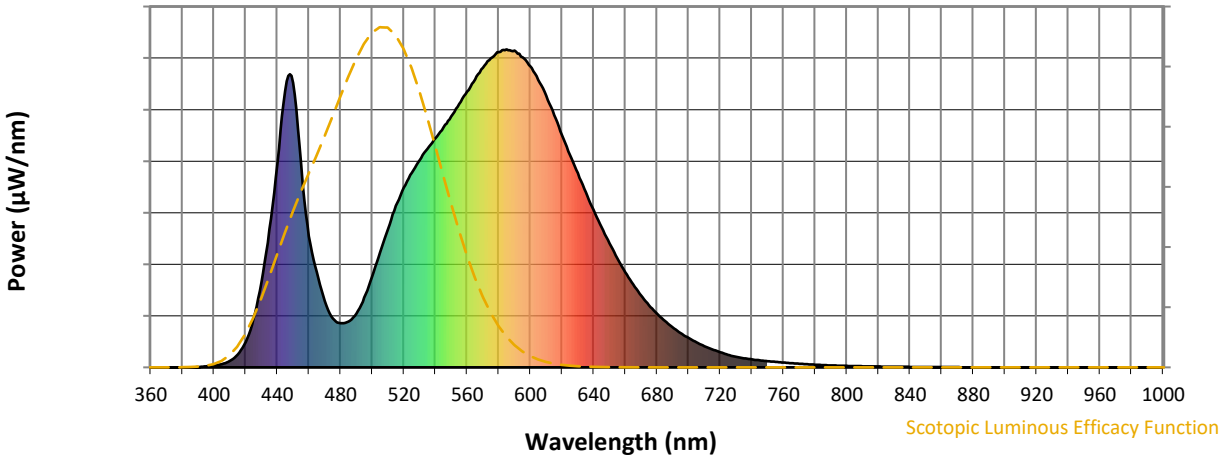


Photopic Lumens: NR

λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)
360	0	NR	490	169	NR	620	731	NR	750	20	NR	880	0	NR
365	0	NR	495	219	NR	625	668	NR	755	17	NR	885	0	NR
370	0	NR	500	285	NR	630	611	NR	760	15	NR	890	0	NR
375	0	NR	505	362	NR	635	550	NR	765	13	NR	895	0	NR
380	0	NR	510	435	NR	640	495	NR	770	11	NR	900	0	NR
385	0	NR	515	508	NR	645	440	NR	775	10	NR	905	0	NR
390	1	NR	520	565	NR	650	390	NR	780	8	NR	910	0	NR
395	3	NR	525	612	NR	655	343	NR	785	7	NR	915	0	NR
400	6	NR	530	652	NR	660	299	NR	790	6	NR	920	0	NR
405	10	NR	535	687	NR	665	261	NR	795	5	NR	925	0	NR
410	20	NR	540	720	NR	670	226	NR	800	5	NR	930	0	NR
415	40	NR	545	755	NR	675	195	NR	805	4	NR	935	0	NR
420	80	NR	550	789	NR	680	169	NR	810	3	NR	940	0	NR
425	152	NR	555	828	NR	685	146	NR	815	3	NR	945	0	NR
430	266	NR	560	867	NR	690	126	NR	820	3	NR	950	0	NR
435	435	NR	565	905	NR	695	108	NR	825	2	NR	955	0	NR
440	641	NR	570	942	NR	700	92	NR	830	2	NR	960	0	NR
445	869	NR	575	972	NR	705	79	NR	835	2	NR	965	0	NR
450	894	NR	580	991	NR	710	67	NR	840	2	NR	970	0	NR
455	640	NR	585	1000	NR	715	56	NR	845	1	NR	975	0	NR
460	413	NR	590	996	NR	720	47	NR	850	1	NR	980	0	NR
465	300	NR	595	975	NR	725	40	NR	855	1	NR	985	0	NR
470	208	NR	600	946	NR	730	33	NR	860	1	NR	990	0	NR
475	154	NR	605	903	NR	735	29	NR	865	1	NR	995	0	NR
480	139	NR	610	854	NR	740	25	NR	870	1	NR	1000	0	NR
485	144	NR	615	793	NR	745	22	NR	875	0	NR			

REPORT NUMBER: SP1-2407-176-20

Scotopic Flux vs. Wavelength



Scotopic Lumens: NR **S/P: 1.47**

λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)
360	0	NR	490	169	NR	620	731	NR	750	20	NR	880	0	NR
365	0	NR	495	219	NR	625	668	NR	755	17	NR	885	0	NR
370	0	NR	500	285	NR	630	611	NR	760	15	NR	890	0	NR
375	0	NR	505	362	NR	635	550	NR	765	13	NR	895	0	NR
380	0	NR	510	435	NR	640	495	NR	770	11	NR	900	0	NR
385	0	NR	515	508	NR	645	440	NR	775	10	NR	905	0	NR
390	1	NR	520	565	NR	650	390	NR	780	8	NR	910	0	NR
395	3	NR	525	612	NR	655	343	NR	785	7	NR	915	0	NR
400	6	NR	530	652	NR	660	299	NR	790	6	NR	920	0	NR
405	10	NR	535	687	NR	665	261	NR	795	5	NR	925	0	NR
410	20	NR	540	720	NR	670	226	NR	800	5	NR	930	0	NR
415	40	NR	545	755	NR	675	195	NR	805	4	NR	935	0	NR
420	80	NR	550	789	NR	680	169	NR	810	3	NR	940	0	NR
425	152	NR	555	828	NR	685	146	NR	815	3	NR	945	0	NR
430	266	NR	560	867	NR	690	126	NR	820	3	NR	950	0	NR
435	435	NR	565	905	NR	695	108	NR	825	2	NR	955	0	NR
440	641	NR	570	942	NR	700	92	NR	830	2	NR	960	0	NR
445	869	NR	575	972	NR	705	79	NR	835	2	NR	965	0	NR
450	894	NR	580	991	NR	710	67	NR	840	2	NR	970	0	NR
455	640	NR	585	1000	NR	715	56	NR	845	1	NR	975	0	NR
460	413	NR	590	996	NR	720	47	NR	850	1	NR	980	0	NR
465	300	NR	595	975	NR	725	40	NR	855	1	NR	985	0	NR
470	208	NR	600	946	NR	730	33	NR	860	1	NR	990	0	NR
475	154	NR	605	903	NR	735	29	NR	865	1	NR	995	0	NR
480	139	NR	610	854	NR	740	25	NR	870	1	NR	1000	0	NR
485	144	NR	615	793	NR	745	22	NR	875	0	NR			

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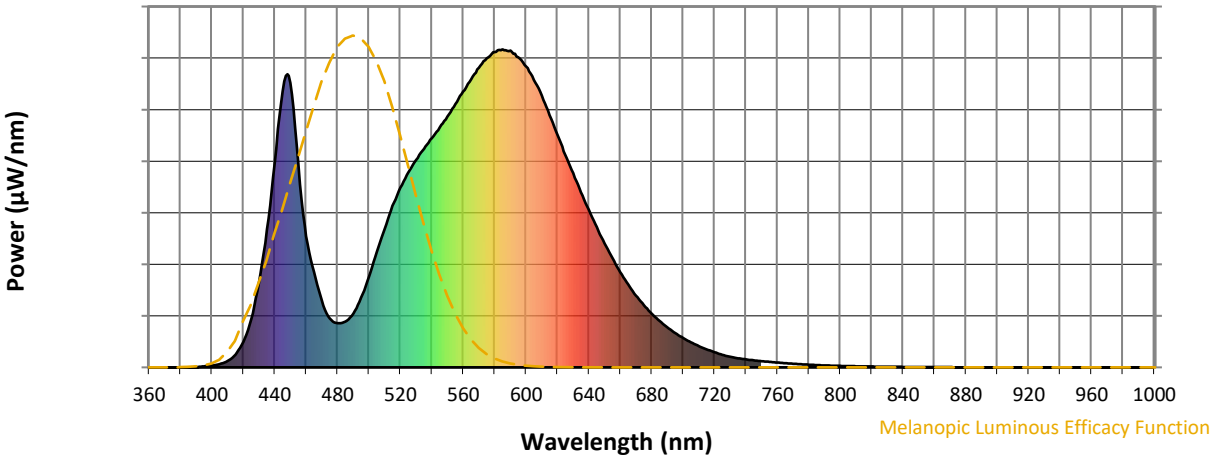
Melanopic Flux vs. Wavelength



Melanopic Lumens: NR **M/P: 2.83**

λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)
360	0	NR	490	169	NR	620	731	NR	750	20	NR	880	0	NR
365	0	NR	495	219	NR	625	668	NR	755	17	NR	885	0	NR
370	0	NR	500	285	NR	630	611	NR	760	15	NR	890	0	NR
375	0	NR	505	362	NR	635	550	NR	765	13	NR	895	0	NR
380	0	NR	510	435	NR	640	495	NR	770	11	NR	900	0	NR
385	0	NR	515	508	NR	645	440	NR	775	10	NR	905	0	NR
390	1	NR	520	565	NR	650	390	NR	780	8	NR	910	0	NR
395	3	NR	525	612	NR	655	343	NR	785	7	NR	915	0	NR
400	6	NR	530	652	NR	660	299	NR	790	6	NR	920	0	NR
405	10	NR	535	687	NR	665	261	NR	795	5	NR	925	0	NR
410	20	NR	540	720	NR	670	226	NR	800	5	NR	930	0	NR
415	40	NR	545	755	NR	675	195	NR	805	4	NR	935	0	NR
420	80	NR	550	789	NR	680	169	NR	810	3	NR	940	0	NR
425	152	NR	555	828	NR	685	146	NR	815	3	NR	945	0	NR
430	266	NR	560	867	NR	690	126	NR	820	3	NR	950	0	NR
435	435	NR	565	905	NR	695	108	NR	825	2	NR	955	0	NR
440	641	NR	570	942	NR	700	92	NR	830	2	NR	960	0	NR
445	869	NR	575	972	NR	705	79	NR	835	2	NR	965	0	NR
450	894	NR	580	991	NR	710	67	NR	840	2	NR	970	0	NR
455	640	NR	585	1000	NR	715	56	NR	845	1	NR	975	0	NR
460	413	NR	590	996	NR	720	47	NR	850	1	NR	980	0	NR
465	300	NR	595	975	NR	725	40	NR	855	1	NR	985	0	NR
470	208	NR	600	946	NR	730	33	NR	860	1	NR	990	0	NR
475	154	NR	605	903	NR	735	29	NR	865	1	NR	995	0	NR
480	139	NR	610	854	NR	740	25	NR	870	1	NR	1000	0	NR
485	144	NR	615	793	NR	745	22	NR	875	0	NR			

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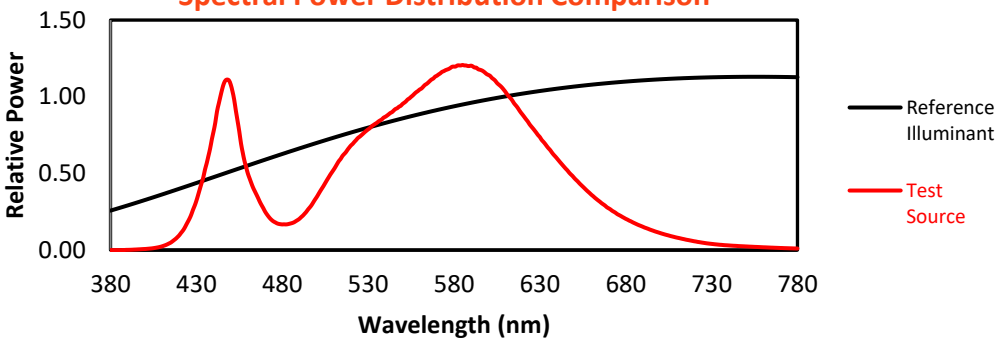
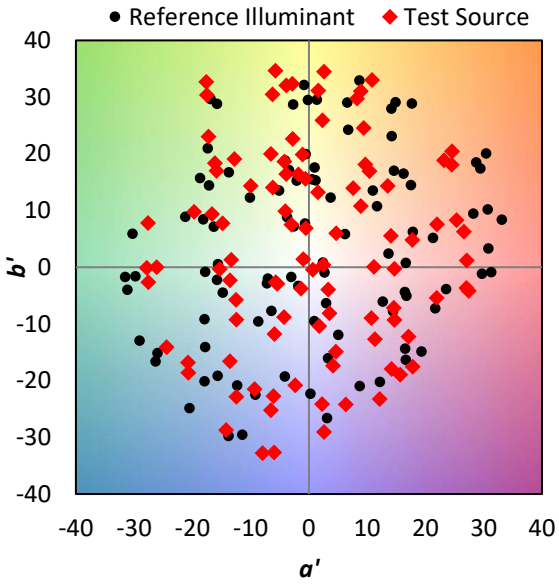
Summary

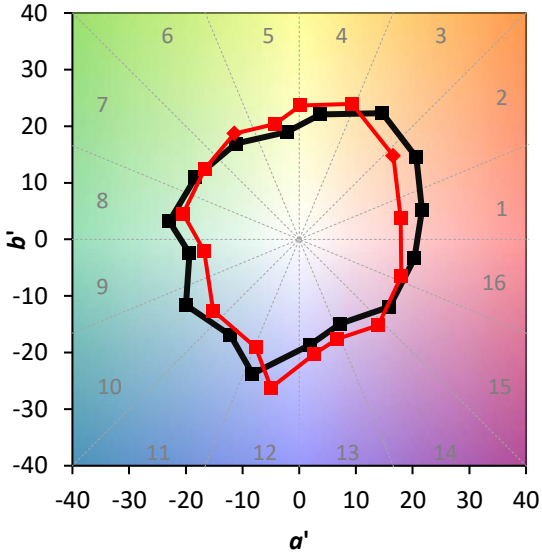
R_f = 74.4
R_g = 93.6
CIE R_a = 71.3
R_9 = -37.8

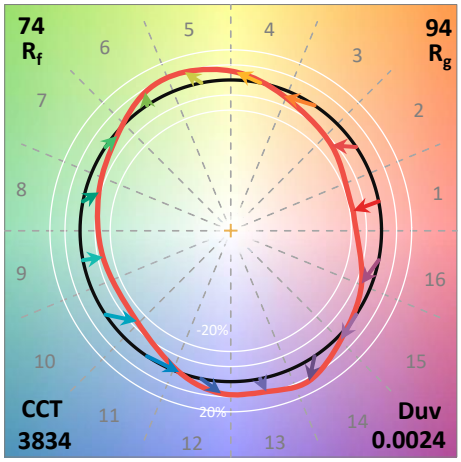
Spectral Power Distribution Comparison

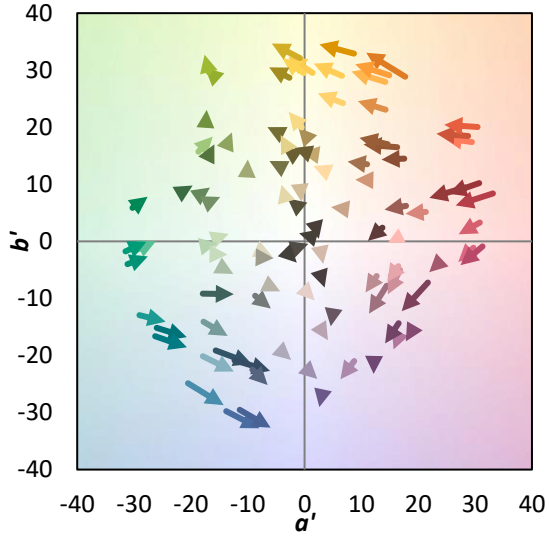


Color Vector Graphics









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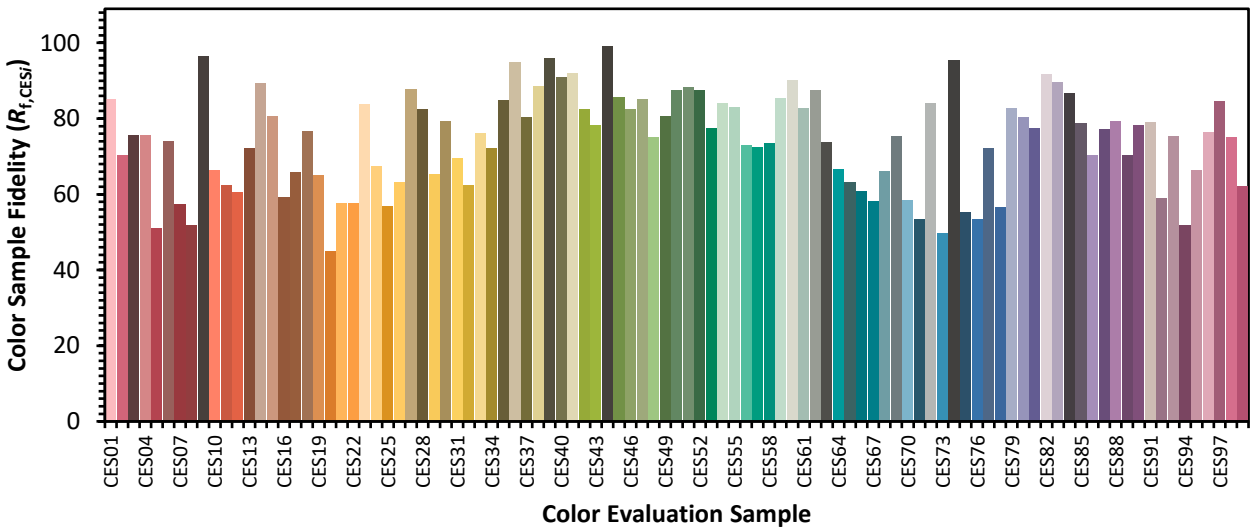
Individual Sample Fidelity Index ($R_{f,i}$)

CES01 = 85	CES26 = 63	CES51 = 88	CES76 = 54
CES02 = 61	CES27 = 88	CES52 = 87	CES77 = 72
CES03 = 30	CES28 = 83	CES53 = 77	CES78 = 57
CES04 = 70	CES29 = 65	CES54 = 84	CES79 = 83
CES05 = 47	CES30 = 79	CES55 = 83	CES80 = 80
CES06 = 50	CES31 = 69	CES56 = 73	CES81 = 78
CES07 = 40	CES32 = 62	CES57 = 72	CES82 = 92
CES08 = 39	CES33 = 76	CES58 = 74	CES83 = 90
CES09 = 29	CES34 = 72	CES59 = 85	CES84 = 87
CES10 = 74	CES35 = 85	CES60 = 90	CES85 = 79
CES11 = 57	CES36 = 95	CES61 = 83	CES86 = 70
CES12 = 63	CES37 = 80	CES62 = 88	CES87 = 77
CES13 = 42	CES38 = 89	CES63 = 74	CES88 = 79
CES14 = 74	CES39 = 96	CES64 = 67	CES89 = 70
CES15 = 71	CES40 = 91	CES65 = 63	CES90 = 78
CES16 = 46	CES41 = 92	CES66 = 61	CES91 = 79
CES17 = 49	CES42 = 83	CES67 = 58	CES92 = 59
CES18 = 56	CES43 = 78	CES68 = 66	CES93 = 75
CES19 = 72	CES44 = 99	CES69 = 75	CES94 = 52
CES20 = 65	CES45 = 86	CES70 = 59	CES95 = 67
CES21 = 86	CES46 = 82	CES71 = 54	CES96 = 76
CES22 = 78	CES47 = 85	CES72 = 84	CES97 = 85
CES23 = 92	CES48 = 75	CES73 = 50	CES98 = 75
CES24 = 91	CES49 = 81	CES74 = 96	CES99 = 62
CES25 = 72	CES50 = 88	CES75 = 55	



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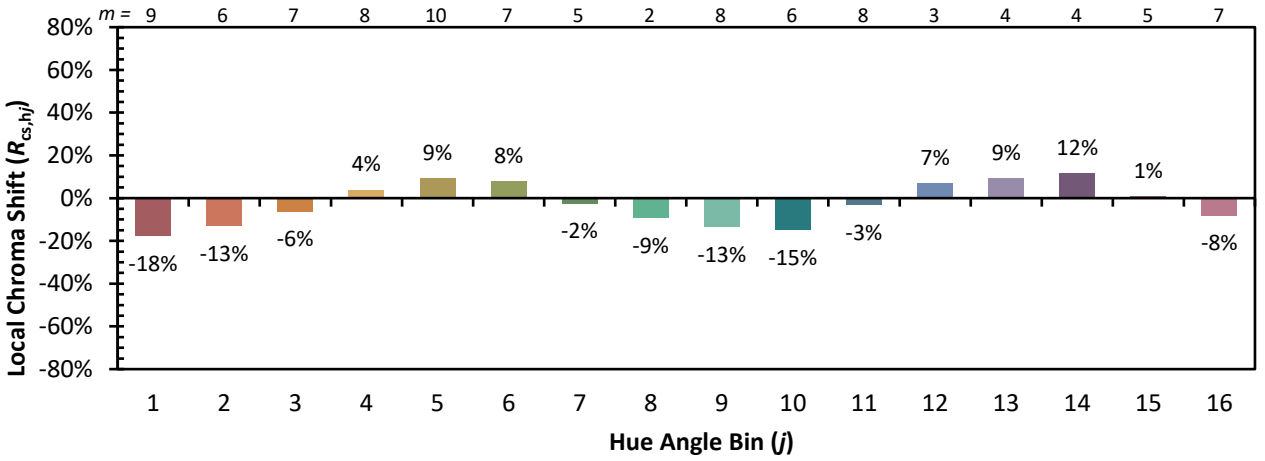
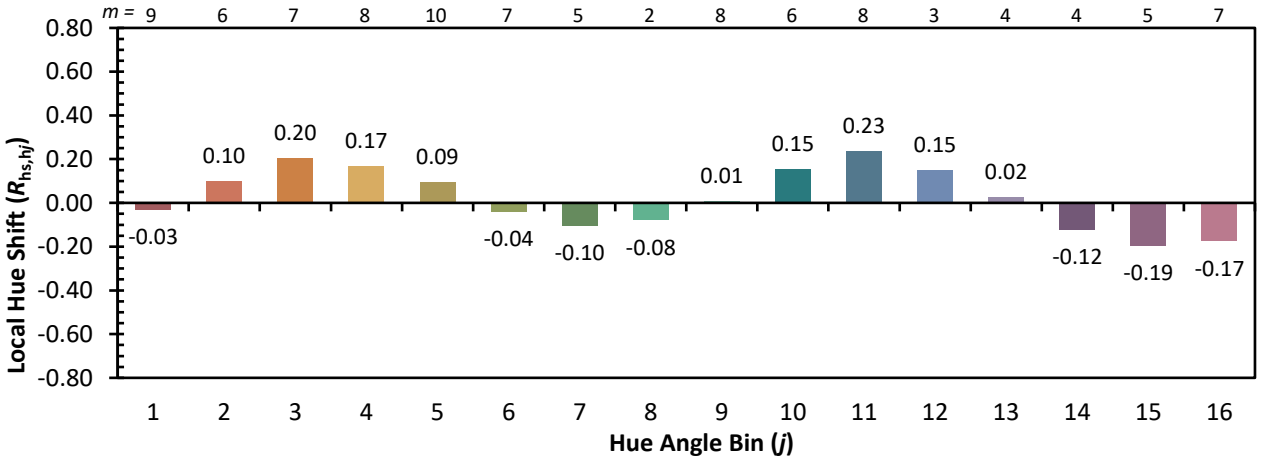
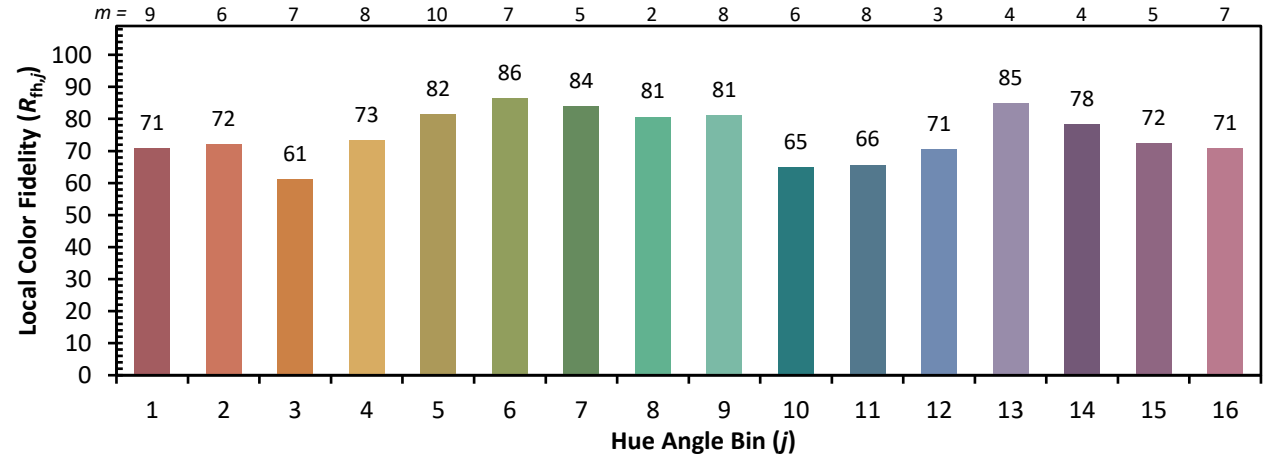
Color Rendition by Hue-Angle Bin







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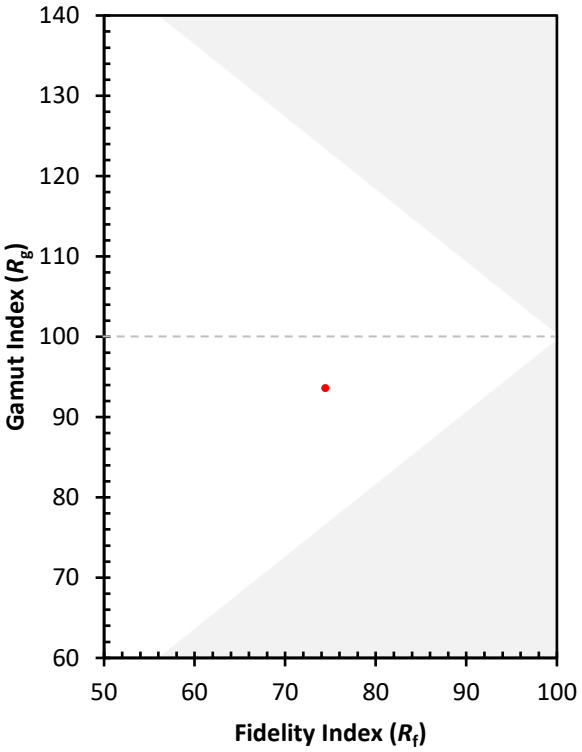
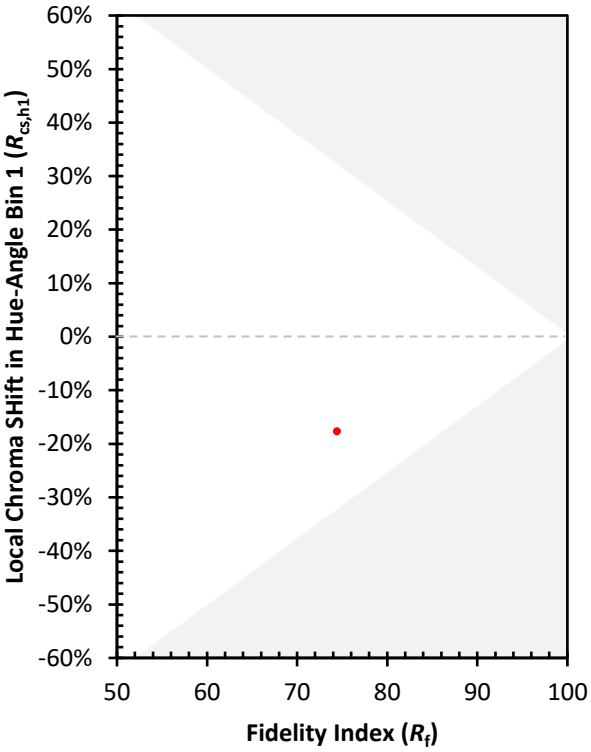
Measure Comparisons





(END OF REPORT)