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: P879615

Luminaire Tested: **MEM2-HSN-VA-150-735-U-CQ**

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:	P879615
Test Lab:	INNOVATION CENTER(G3)
Issue Date:	10/01/2024
Manufacturer:	COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line:	STREETWORKS
Catalog Number:	MEM2-HSN-VA-150-735-U-CQ
Description:	EPIC MODERN SHORT HOUSING 150W 70CRI 3500K VISUAL COMFORT FIXTURE w/ TYPE V CONCENTRATED DISTRIBUTION OPTIC
Light Source:	(1) 3500K CCT, 70 CRI LEDS
Ballast/Driver:	ELECTRONIC DRIVER

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	13855.8 lumens
Efficiency:	N/A
Efficacy:	88.8 lumens/watt
Luminous Opening:	Circular (Dia: 1.12' x H: 0')
IES Classification:	Type V - Short
BUG Rating:	B3 - U0 - G2

Input Watts (W):	156
Input Voltage (V):	120
Input Current (Ain):	NR
Voltage Rise (V):	NR
Power Factor:	0.995
Total Harmonic Distortion (THDi):	6.6%
Frequency (hertz):	60
Stabilization Time:	NR
Operation Time:	NR
Ambient Temperature (°C):	NR
Test Distance:	24 FT

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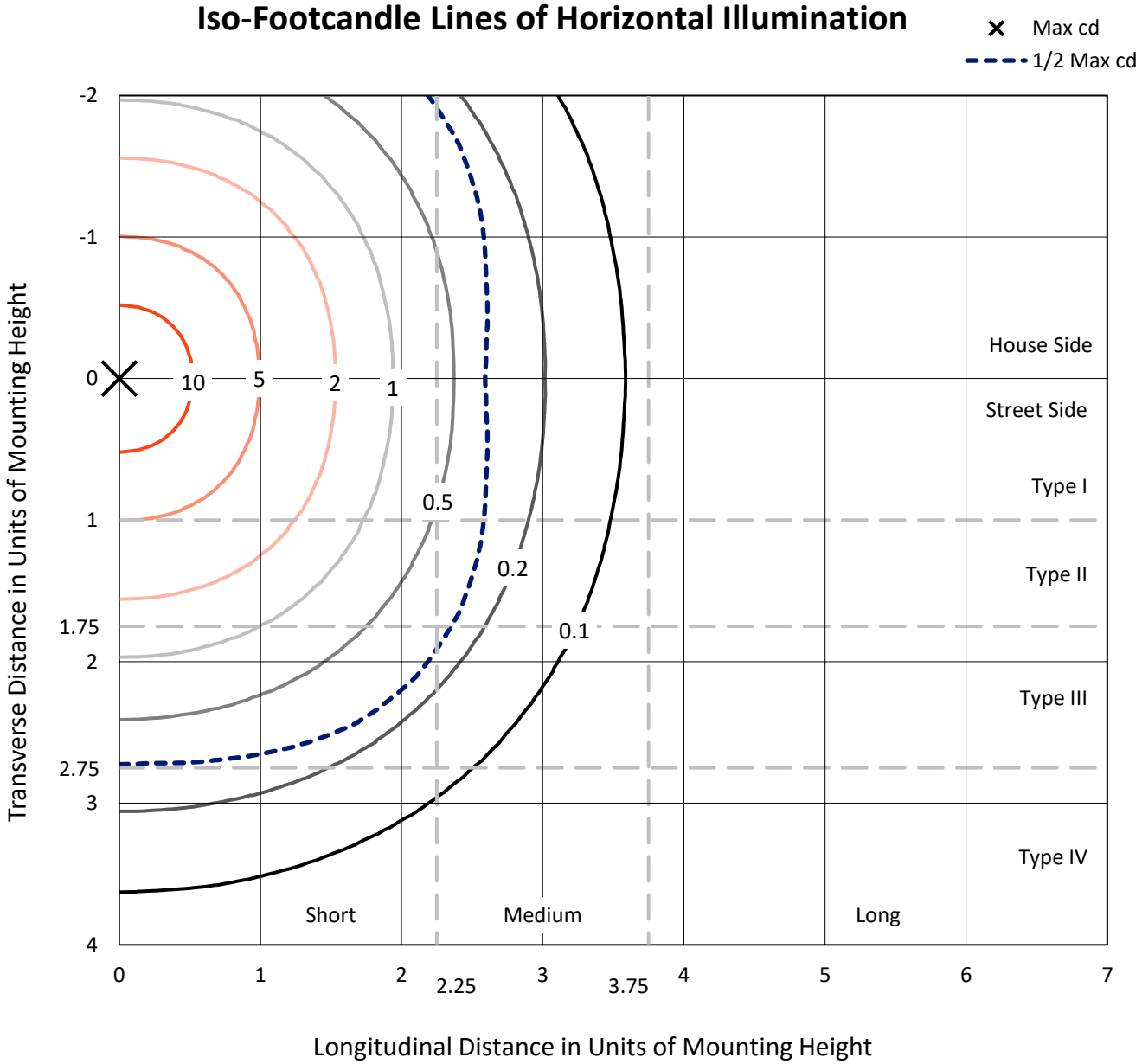
Scaled Data Report

REPORT NUMBER: P879615
CATALOG NUMBER: MEM2-HSN-VA-150-735-U-CQ

Iso-Footcandle Lines of Horizontal Illumination



Based on 15 foot mounting height. Maximum calculated value = 15.4 fc
Type V - Short - N/A

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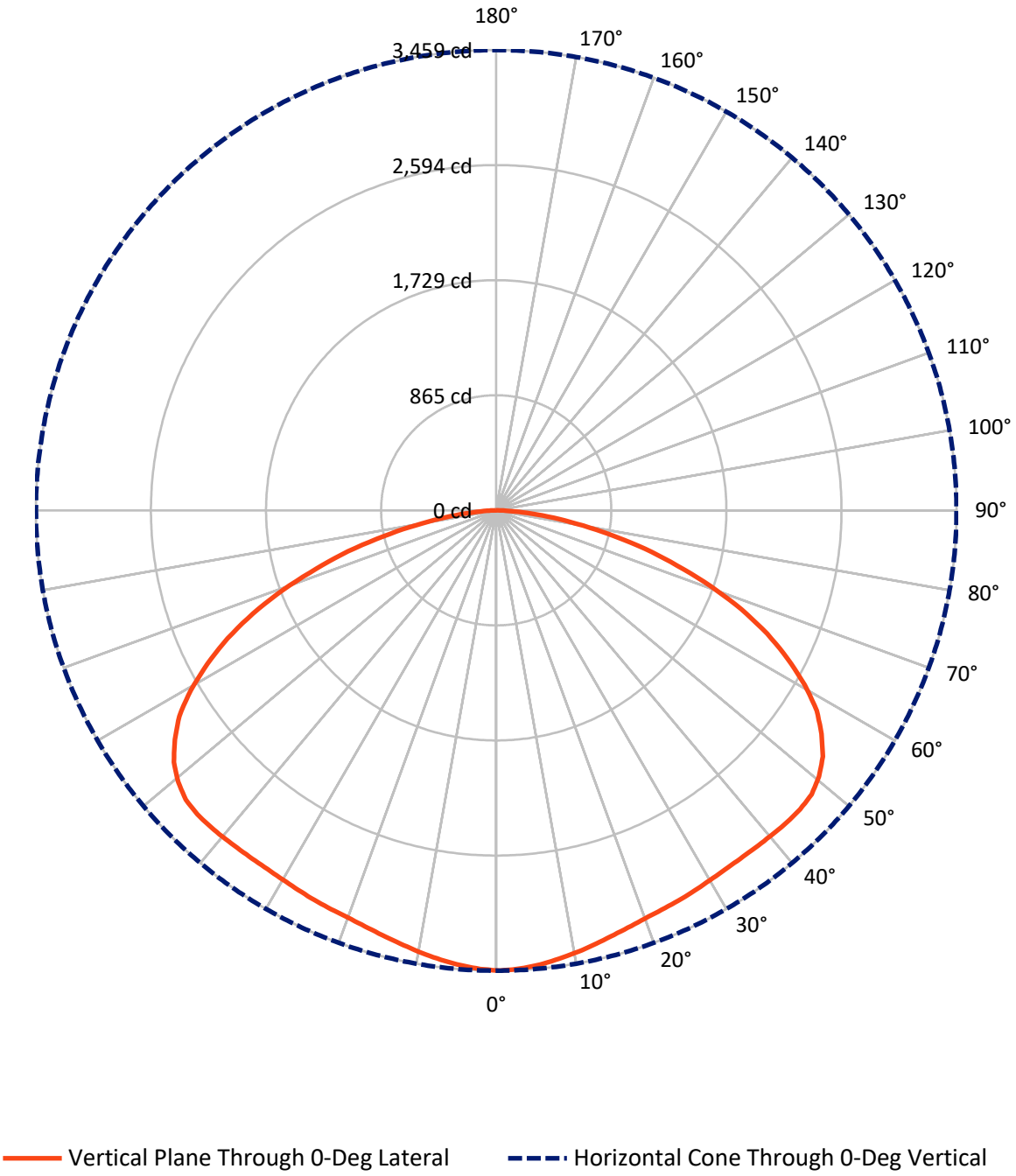
Luminous Intensity Polar Plot



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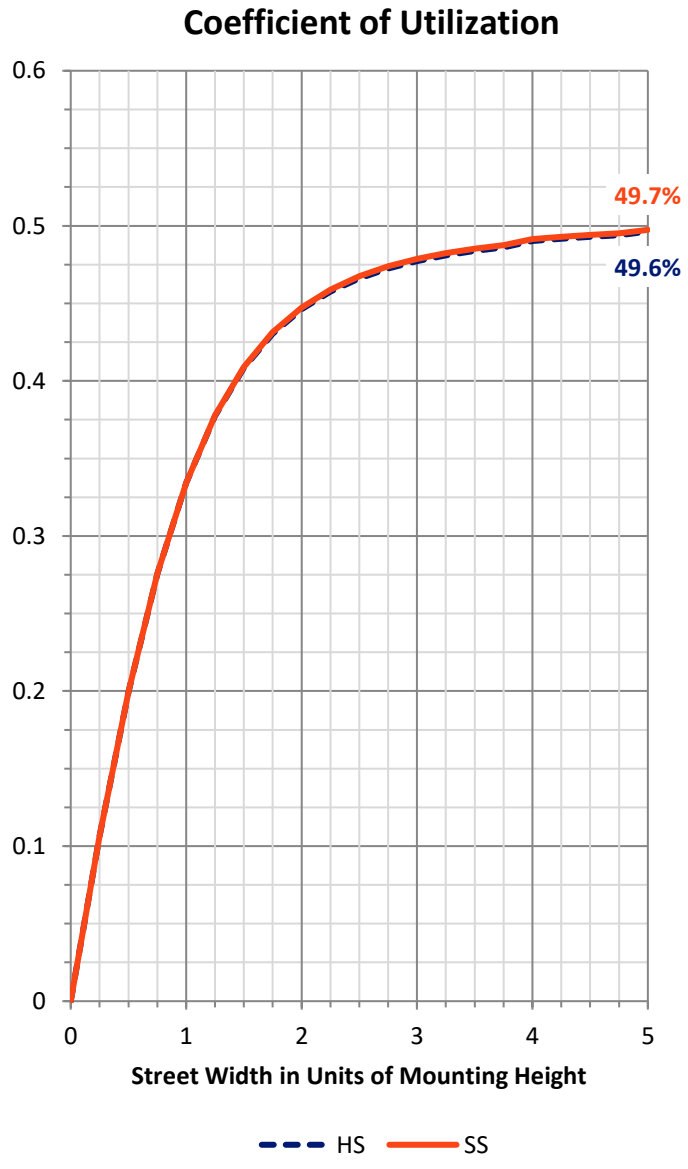
REPORT NUMBER: P879615
CATALOG NUMBER: MEM2-HSN-VA-150-735-U-CQ

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6927.9	0.0	6927.9
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	6927.9	0.0	6927.9
	% Fixture	50.0	0.0	50.0
Total	Lumens	13855.8	0.0	13855.8
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	325.9	2.4
10°-20°	940.4	6.8
20°-30°	1505.6	10.9
30°-40°	2039.6	14.7
40°-50°	2518.7	18.2
50°-60°	2706.1	19.5
60°-70°	2275.7	16.4
70°-80°	1270.7	9.2
80°-90°	273.0	2.0
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°	13855.8	100.0
0°-180°	13855.8	100.0



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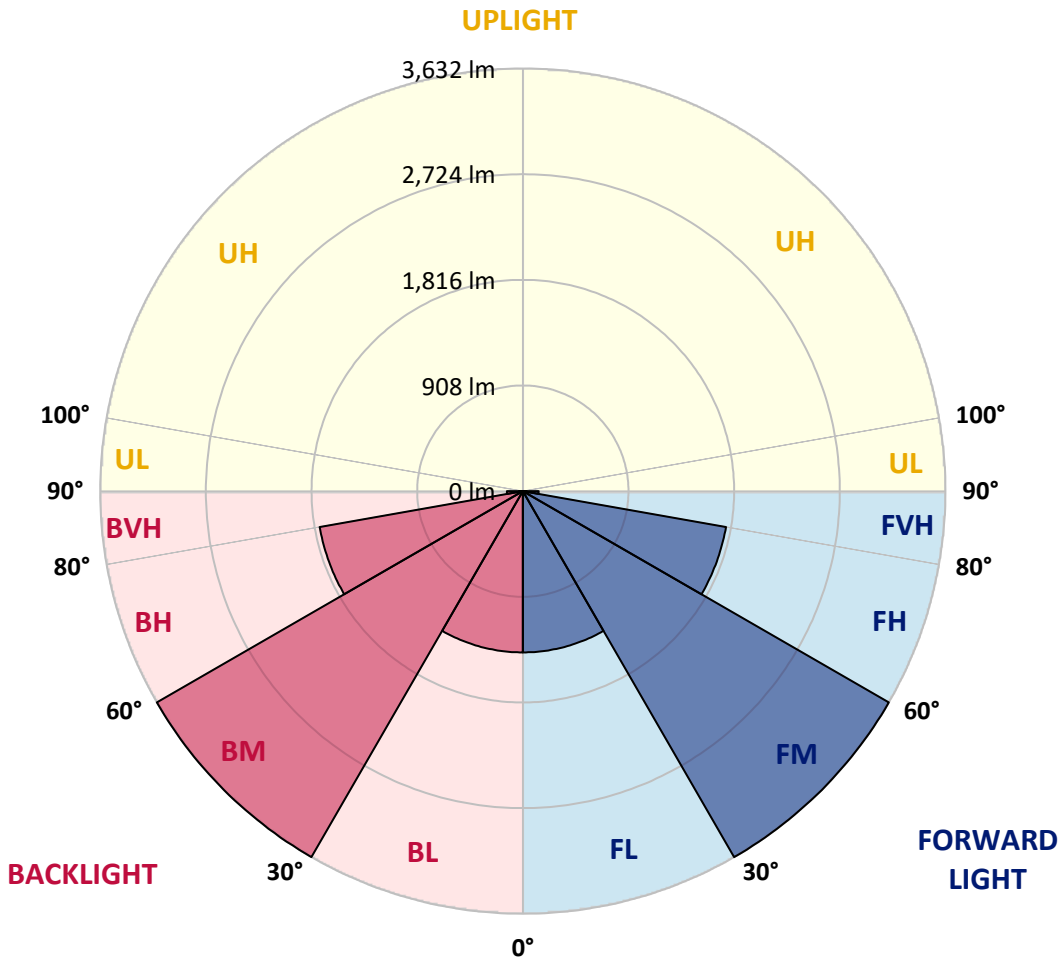
Scaled Data Report

REPORT NUMBER: P879615
CATALOG NUMBER: MEM2-HSN-VA-150-735-U-CQ

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	1386.0	10.0			
FM	(30°-60°)	3632.2	26.2			
FH	(60°-80°)	1773.2	12.8			G1/1800
FVH	(80°-90°)	136.5	1.0			G2/225
BL	(0°-30°)	1386.0	10.0	B3/2500		
BM	(30°-60°)	3632.2	26.2	B3/5000		
BH	(60°-80°)	1773.2	12.8	B3/2500		G1/1800
BVH	(80°-90°)	136.5	1.0			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G2
Type V Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	3458.6	3458.6	3458.6	3458.6	3458.6	3458.6	3458.6	3458.6	3458.6	3458.6	3458.6
2.5°	3448.3	3451.7	3450.8	3450.8	3450.8	3452.6	3452.6	3452.6	3453.4	3453.4	3454.3
5°	3428.5	3431.1	3431.1	3431.1	3432.8	3433.7	3433.7	3434.5	3436.2	3435.4	3434.5
7.5°	3401.9	3404.5	3404.5	3404.5	3406.2	3407.9	3407.9	3407.0	3409.6	3409.6	3408.7
10°	3373.5	3374.4	3375.2	3377.0	3379.5	3380.4	3379.5	3379.5	3378.7	3379.5	3379.5
12.5°	3340.0	3344.3	3345.2	3346.9	3351.2	3352.0	3352.0	3351.2	3350.3	3350.3	3349.5
15°	3310.0	3311.7	3314.3	3317.7	3322.8	3324.6	3325.4	3322.8	3320.3	3319.4	3320.3
17.5°	3282.5	3285.0	3288.5	3291.9	3298.8	3302.2	3302.2	3298.8	3295.4	3293.6	3293.6
20°	3260.1	3262.7	3267.0	3272.2	3281.6	3285.9	3284.2	3280.7	3274.7	3272.2	3273.0
22.5°	3245.5	3249.0	3252.4	3260.1	3270.4	3275.6	3273.9	3267.9	3261.0	3256.7	3256.7
25°	3233.5	3236.1	3241.2	3251.5	3262.7	3268.7	3266.1	3258.4	3249.0	3243.8	3242.9
27.5°	3219.8	3223.2	3230.1	3243.8	3257.6	3262.7	3261.0	3249.8	3238.7	3231.8	3230.1
30°	3206.9	3210.3	3219.8	3235.2	3252.4	3260.1	3255.8	3243.8	3230.1	3221.5	3220.6
32.5°	3198.3	3202.6	3213.7	3233.5	3254.1	3265.3	3261.0	3246.4	3228.3	3217.2	3216.3
35°	3194.8	3199.1	3215.5	3239.5	3265.3	3280.7	3274.7	3256.7	3234.4	3220.6	3218.9
37.5°	3195.7	3200.9	3221.5	3253.3	3285.9	3302.2	3294.5	3271.3	3242.9	3224.0	3221.5
40°	3199.1	3205.2	3231.8	3271.3	3310.0	3325.4	3313.4	3279.0	3240.4	3213.7	3208.6
42.5°	3203.4	3212.9	3245.5	3291.9	3332.3	3345.2	3323.7	3273.0	3218.9	3184.5	3180.2
45°	3202.6	3210.3	3248.1	3303.1	3346.0	3352.9	3317.7	3254.1	3190.5	3145.9	3142.4
47.5°	3188.0	3195.7	3238.7	3299.6	3341.7	3343.5	3301.4	3228.3	3153.6	3102.1	3096.9
50°	3142.4	3152.7	3200.9	3267.9	3315.1	3316.0	3269.6	3188.8	3102.1	3041.9	3033.3
52.5°	3072.9	3080.6	3136.4	3208.6	3261.8	3268.7	3218.0	3124.4	3025.6	2961.2	2955.2
55°	2964.6	2980.1	3039.4	3114.9	3173.4	3181.1	3130.4	3029.0	2927.7	2853.8	2846.9
57.5°	2839.2	2841.8	2904.5	2986.9	3047.9	3056.5	3001.6	2898.5	2792.8	2724.1	2706.9
60°	2662.2	2672.5	2731.8	2812.6	2877.0	2888.2	2835.8	2736.1	2626.1	2548.0	2547.1
62.5°	2457.8	2469.8	2529.9	2615.8	2681.1	2692.3	2636.5	2539.4	2429.4	2362.4	2338.4
65°	2236.1	2239.6	2299.7	2384.7	2444.0	2450.0	2406.2	2314.3	2200.9	2132.2	2116.7
67.5°	1987.0	1990.4	2036.8	2116.7	2180.3	2188.9	2144.2	2060.0	1957.8	1885.6	1877.9
70°	1711.2	1712.1	1757.6	1822.9	1886.5	1904.5	1864.2	1783.4	1685.5	1627.9	1612.5
72.5°	1420.9	1428.6	1469.0	1536.9	1591.0	1595.3	1562.6	1493.0	1413.2	1365.9	1357.3
75°	1155.4	1150.3	1184.6	1225.9	1268.0	1281.7	1255.1	1207.8	1134.0	1092.7	1101.3
77.5°	867.6	869.4	896.0	933.8	960.4	984.5	954.4	932.1	872.8	825.6	827.3
80°	613.4	611.7	636.6	654.6	684.7	688.1	671.8	641.7	603.9	584.2	582.4
82.5°	388.3	380.6	399.5	422.7	435.5	429.5	433.0	413.2	383.1	372.8	363.4
85°	198.4	196.7	207.0	215.6	225.1	225.1	219.9	204.5	198.4	186.4	183.0
87.5°	67.9	70.4	73.9	71.3	75.6	73.9	72.2	61.0	54.1	50.7	47.2
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: SP1-2407-176-8

Test Date: 09/25/2024

Luminaire Tested: MEM2-HTN-VA-130-735-U-RW

Data in this report applies to families of products including MEM2-HTN-VA-130-735-U-RW

Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

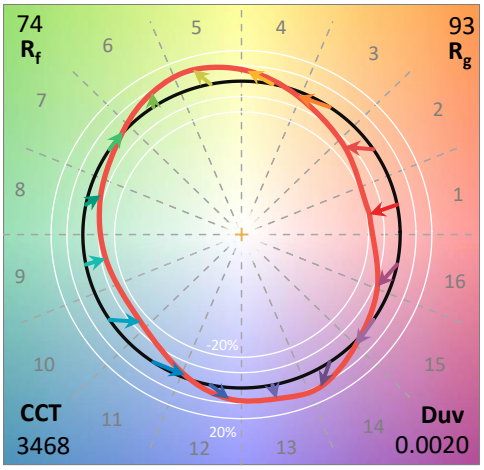
Test Information

Test Method:	LM-79-2019
Report Number:	SP1-2407-176-8
Test Lab:	COOPER LIGHTING SOLUTIONS
Photometer:	SP1 - 76IN SPHERE
Measurement Geometry:	4π
Issue Date:	09/27/2024
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	Streetworks
Catalog Number:	**MEM2-HTN-VA-130-735-U-RW**
Description:	EPIC MODERN VISUAL COMFORT 130W WAVESTREAM RECTANGULAR WIDE

Spectral Parameters

CCT (K):	3468	CRI (Ra):	70.6		
CIE u':	0.2356	R1:	66.2	R9:	-41.3
CIE v':	0.5145	R2:	79.1	R10:	52.2
Duv:	0.0020	R3:	90.8	R11:	63.6
CIE x:	0.4092	R4:	68.4	R12:	47.5
CIE y:	0.3972	R5:	66.3	R13:	68.3
CIE z:	0.1936	R6:	71.1	R14:	94.8
Peak Wavelength (nm):	590	R7:	78.4	R15:	57.6
Dominant Wavelength (nm):	580	R8:	44.5		
Purity:	42.03411				

Rf:	74.1
Rg:	93.4



Test Conditions

Stabilization Time:	46M
Operation Time:	1H 46M
Sphere Temperature (°C):	25.2

REPORT NUMBER: SP1-2407-176-8

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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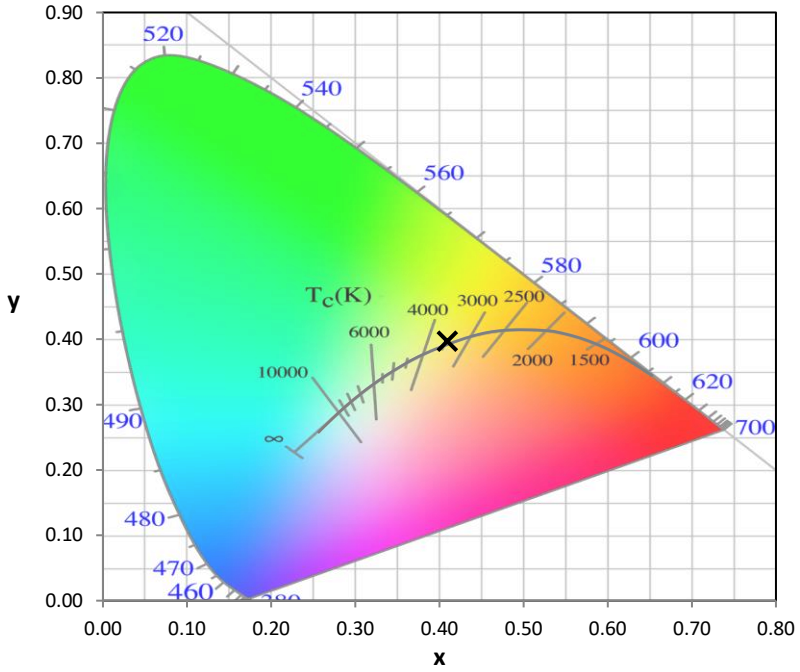
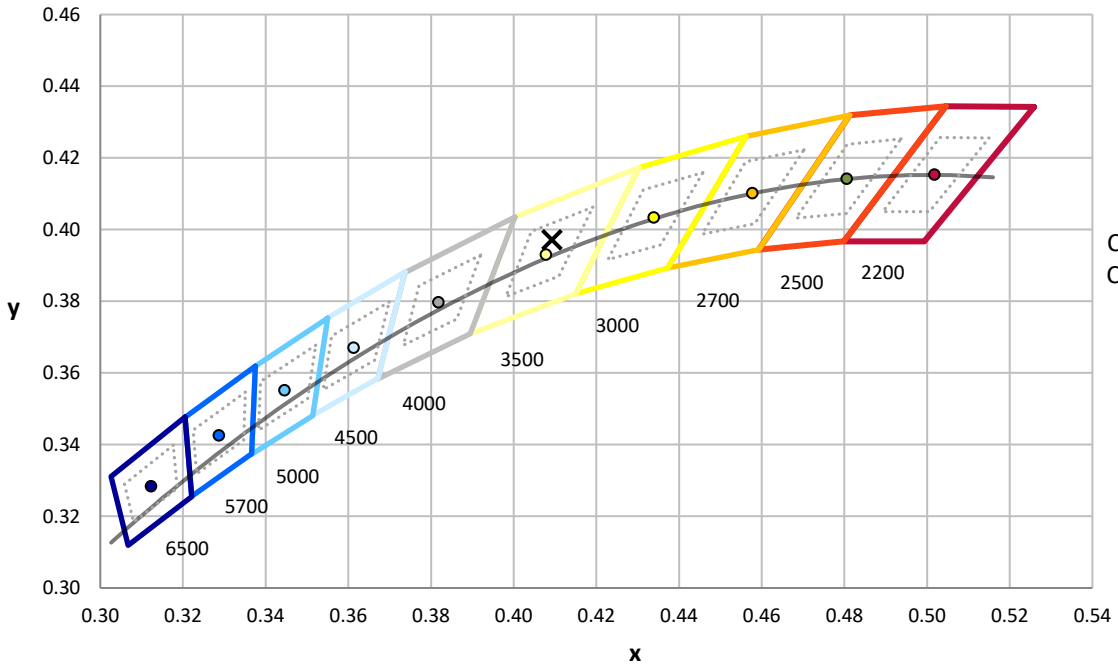
CIE 1931 Chromaticity Diagram



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



CCT = 3468K
CIE x = 0.4092
CIE y = 0.3972
Duv = 0.0020

Point lies inside the ANSI 3500K 4-step quadrangle

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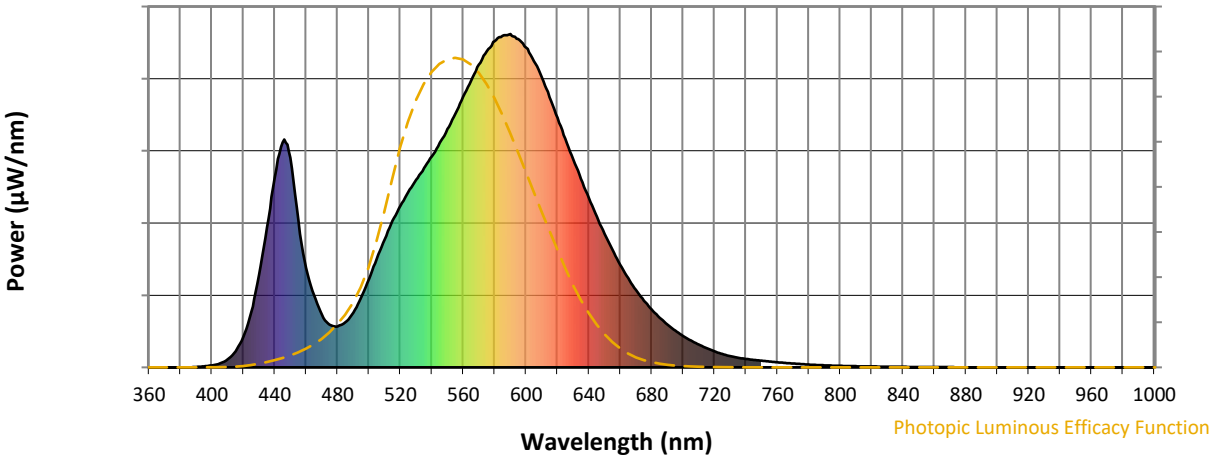
Photopic Flux vs. Wavelength

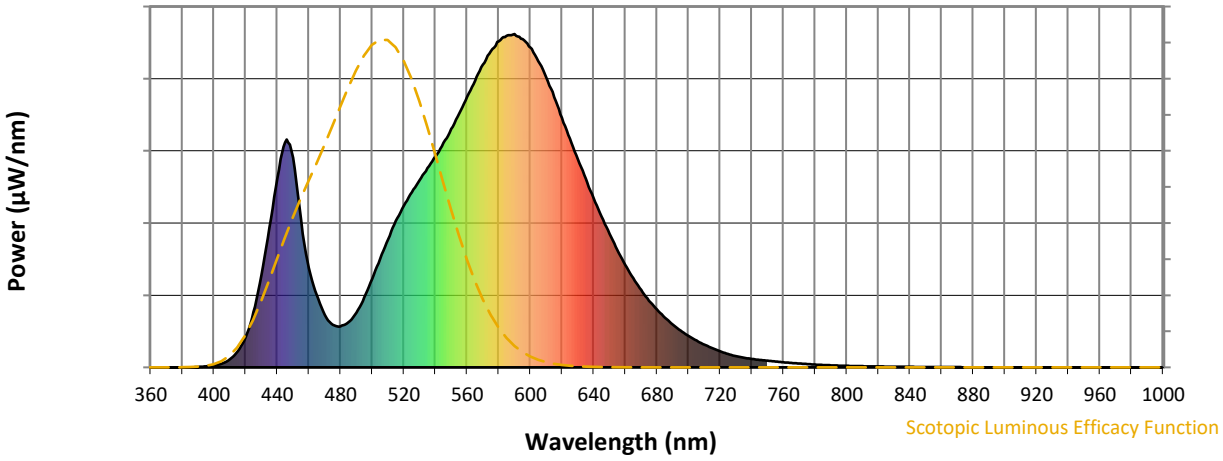


Photopic Lumens: NR

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	164	NR	620	749	NR	750	20	NR	880	0	NR
365	0	NR	495	209	NR	625	686	NR	755	17	NR	885	0	NR
370	0	NR	500	265	NR	630	624	NR	760	15	NR	890	0	NR
375	0	NR	505	325	NR	635	566	NR	765	13	NR	895	0	NR
380	0	NR	510	384	NR	640	508	NR	770	11	NR	900	0	NR
385	0	NR	515	439	NR	645	452	NR	775	10	NR	905	0	NR
390	1	NR	520	485	NR	650	401	NR	780	8	NR	910	0	NR
395	3	NR	525	526	NR	655	353	NR	785	7	NR	915	0	NR
400	6	NR	530	562	NR	660	308	NR	790	6	NR	920	0	NR
405	11	NR	535	598	NR	665	268	NR	795	5	NR	925	0	NR
410	24	NR	540	633	NR	670	232	NR	800	5	NR	930	0	NR
415	48	NR	545	674	NR	675	200	NR	805	4	NR	935	0	NR
420	91	NR	550	715	NR	680	174	NR	810	3	NR	940	0	NR
425	166	NR	555	761	NR	685	149	NR	815	3	NR	945	0	NR
430	276	NR	560	812	NR	690	129	NR	820	3	NR	950	0	NR
435	420	NR	565	860	NR	695	110	NR	825	2	NR	955	0	NR
440	568	NR	570	908	NR	700	94	NR	830	2	NR	960	0	NR
445	675	NR	575	948	NR	705	80	NR	835	2	NR	965	0	NR
450	629	NR	580	978	NR	710	68	NR	840	2	NR	970	0	NR
455	443	NR	585	994	NR	715	58	NR	845	1	NR	975	0	NR
460	299	NR	590	1000	NR	720	48	NR	850	1	NR	980	0	NR
465	217	NR	595	985	NR	725	40	NR	855	1	NR	985	0	NR
470	157	NR	600	959	NR	730	34	NR	860	1	NR	990	0	NR
475	127	NR	605	918	NR	735	29	NR	865	1	NR	995	0	NR
480	123	NR	610	869	NR	740	25	NR	870	1	NR	1000	0	NR
485	135	NR	615	810	NR	745	22	NR	875	0	NR			

REPORT NUMBER: SP1-2407-176-8

Scotopic Flux vs. Wavelength



Scotopic Lumens: NR **S/P: 1.35**

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	164	NR	620	749	NR	750	20	NR	880	0	NR
365	0	NR	495	209	NR	625	686	NR	755	17	NR	885	0	NR
370	0	NR	500	265	NR	630	624	NR	760	15	NR	890	0	NR
375	0	NR	505	325	NR	635	566	NR	765	13	NR	895	0	NR
380	0	NR	510	384	NR	640	508	NR	770	11	NR	900	0	NR
385	0	NR	515	439	NR	645	452	NR	775	10	NR	905	0	NR
390	1	NR	520	485	NR	650	401	NR	780	8	NR	910	0	NR
395	3	NR	525	526	NR	655	353	NR	785	7	NR	915	0	NR
400	6	NR	530	562	NR	660	308	NR	790	6	NR	920	0	NR
405	11	NR	535	598	NR	665	268	NR	795	5	NR	925	0	NR
410	24	NR	540	633	NR	670	232	NR	800	5	NR	930	0	NR
415	48	NR	545	674	NR	675	200	NR	805	4	NR	935	0	NR
420	91	NR	550	715	NR	680	174	NR	810	3	NR	940	0	NR
425	166	NR	555	761	NR	685	149	NR	815	3	NR	945	0	NR
430	276	NR	560	812	NR	690	129	NR	820	3	NR	950	0	NR
435	420	NR	565	860	NR	695	110	NR	825	2	NR	955	0	NR
440	568	NR	570	908	NR	700	94	NR	830	2	NR	960	0	NR
445	675	NR	575	948	NR	705	80	NR	835	2	NR	965	0	NR
450	629	NR	580	978	NR	710	68	NR	840	2	NR	970	0	NR
455	443	NR	585	994	NR	715	58	NR	845	1	NR	975	0	NR
460	299	NR	590	1000	NR	720	48	NR	850	1	NR	980	0	NR
465	217	NR	595	985	NR	725	40	NR	855	1	NR	985	0	NR
470	157	NR	600	959	NR	730	34	NR	860	1	NR	990	0	NR
475	127	NR	605	918	NR	735	29	NR	865	1	NR	995	0	NR
480	123	NR	610	869	NR	740	25	NR	870	1	NR	1000	0	NR
485	135	NR	615	810	NR	745	22	NR	875	0	NR			

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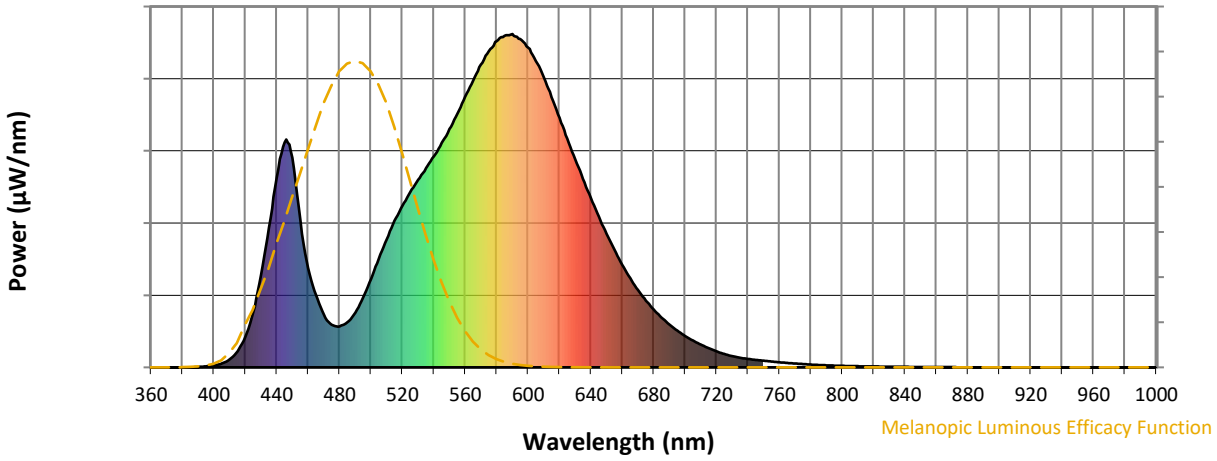
Melanopic Flux vs. Wavelength



Melanopic Lumens: NR **M/P: 2.54**

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	164	NR	620	749	NR	750	20	NR	880	0	NR
365	0	NR	495	209	NR	625	686	NR	755	17	NR	885	0	NR
370	0	NR	500	265	NR	630	624	NR	760	15	NR	890	0	NR
375	0	NR	505	325	NR	635	566	NR	765	13	NR	895	0	NR
380	0	NR	510	384	NR	640	508	NR	770	11	NR	900	0	NR
385	0	NR	515	439	NR	645	452	NR	775	10	NR	905	0	NR
390	1	NR	520	485	NR	650	401	NR	780	8	NR	910	0	NR
395	3	NR	525	526	NR	655	353	NR	785	7	NR	915	0	NR
400	6	NR	530	562	NR	660	308	NR	790	6	NR	920	0	NR
405	11	NR	535	598	NR	665	268	NR	795	5	NR	925	0	NR
410	24	NR	540	633	NR	670	232	NR	800	5	NR	930	0	NR
415	48	NR	545	674	NR	675	200	NR	805	4	NR	935	0	NR
420	91	NR	550	715	NR	680	174	NR	810	3	NR	940	0	NR
425	166	NR	555	761	NR	685	149	NR	815	3	NR	945	0	NR
430	276	NR	560	812	NR	690	129	NR	820	3	NR	950	0	NR
435	420	NR	565	860	NR	695	110	NR	825	2	NR	955	0	NR
440	568	NR	570	908	NR	700	94	NR	830	2	NR	960	0	NR
445	675	NR	575	948	NR	705	80	NR	835	2	NR	965	0	NR
450	629	NR	580	978	NR	710	68	NR	840	2	NR	970	0	NR
455	443	NR	585	994	NR	715	58	NR	845	1	NR	975	0	NR
460	299	NR	590	1000	NR	720	48	NR	850	1	NR	980	0	NR
465	217	NR	595	985	NR	725	40	NR	855	1	NR	985	0	NR
470	157	NR	600	959	NR	730	34	NR	860	1	NR	990	0	NR
475	127	NR	605	918	NR	735	29	NR	865	1	NR	995	0	NR
480	123	NR	610	869	NR	740	25	NR	870	1	NR	1000	0	NR
485	135	NR	615	810	NR	745	22	NR	875	0	NR			

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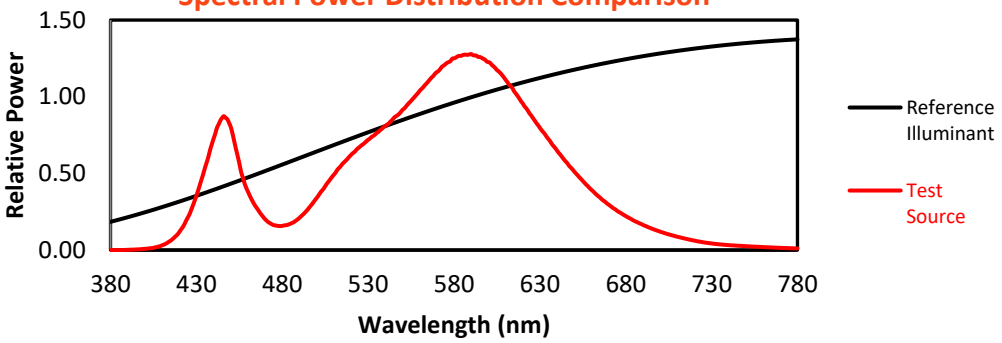
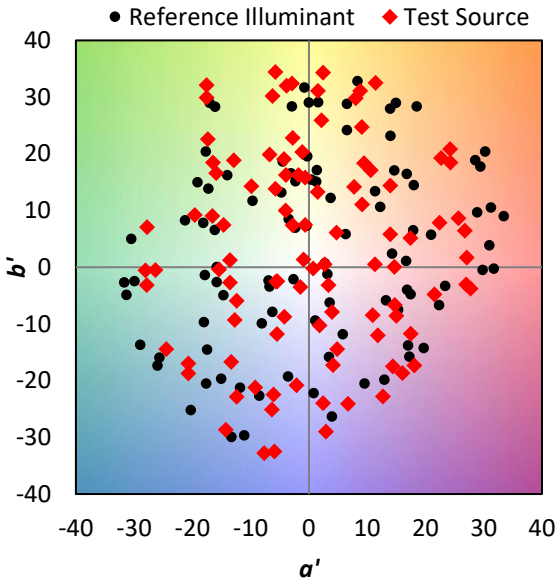
Summary

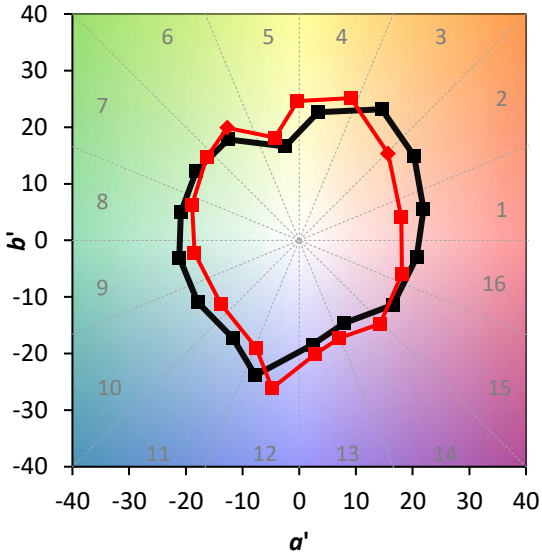
R_f = 74.1
R_g = 93.4
CIE R_a = 70.6
R_9 = -41.3

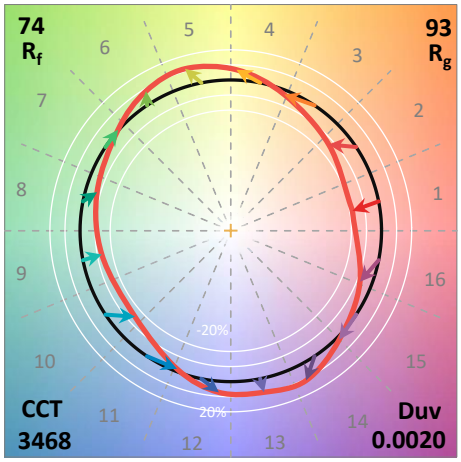
Spectral Power Distribution Comparison

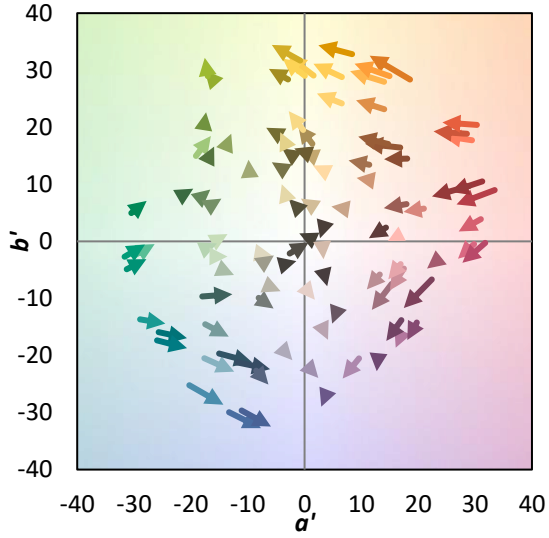


Color Vector Graphics









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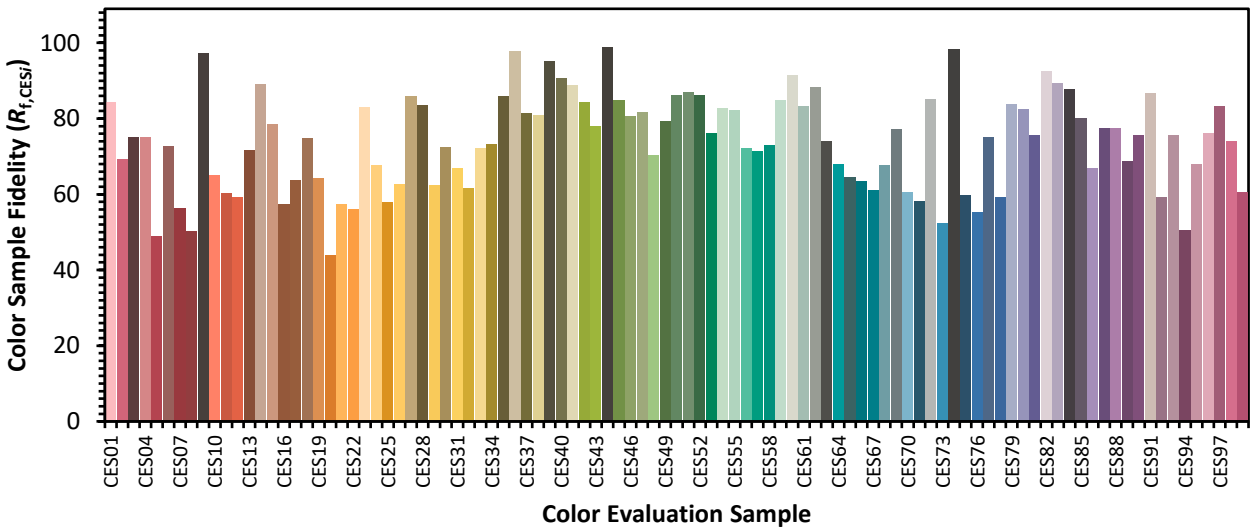
Individual Sample Fidelity Index ($R_{f,i}$)

CES01 = 86	CES26 = 63	CES51 = 87	CES76 = 55
CES02 = 61	CES27 = 86	CES52 = 86	CES77 = 75
CES03 = 31	CES28 = 84	CES53 = 76	CES78 = 59
CES04 = 70	CES29 = 62	CES54 = 83	CES79 = 84
CES05 = 48	CES30 = 72	CES55 = 82	CES80 = 82
CES06 = 51	CES31 = 67	CES56 = 72	CES81 = 76
CES07 = 40	CES32 = 62	CES57 = 71	CES82 = 93
CES08 = 39	CES33 = 72	CES58 = 73	CES83 = 89
CES09 = 29	CES34 = 73	CES59 = 85	CES84 = 88
CES10 = 75	CES35 = 86	CES60 = 92	CES85 = 80
CES11 = 58	CES36 = 98	CES61 = 83	CES86 = 67
CES12 = 64	CES37 = 82	CES62 = 88	CES87 = 78
CES13 = 42	CES38 = 81	CES63 = 74	CES88 = 77
CES14 = 74	CES39 = 95	CES64 = 68	CES89 = 69
CES15 = 71	CES40 = 91	CES65 = 64	CES90 = 76
CES16 = 47	CES41 = 89	CES66 = 63	CES91 = 87
CES17 = 50	CES42 = 84	CES67 = 61	CES92 = 59
CES18 = 56	CES43 = 78	CES68 = 68	CES93 = 76
CES19 = 72	CES44 = 99	CES69 = 77	CES94 = 50
CES20 = 65	CES45 = 85	CES70 = 61	CES95 = 68
CES21 = 87	CES46 = 81	CES71 = 58	CES96 = 76
CES22 = 79	CES47 = 82	CES72 = 85	CES97 = 83
CES23 = 92	CES48 = 70	CES73 = 52	CES98 = 74
CES24 = 91	CES49 = 79	CES74 = 98	CES99 = 61
CES25 = 72	CES50 = 86	CES75 = 60	



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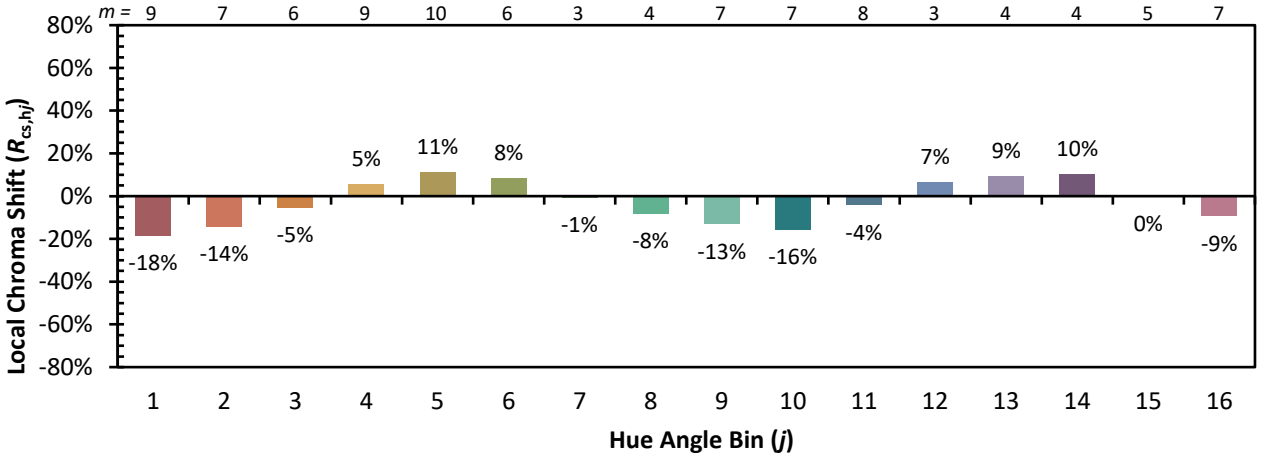
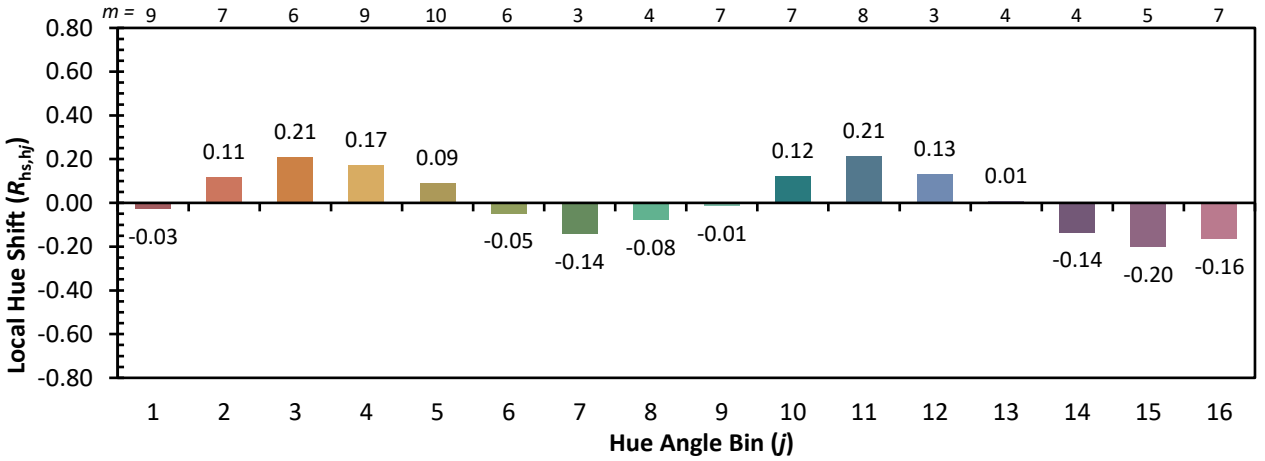
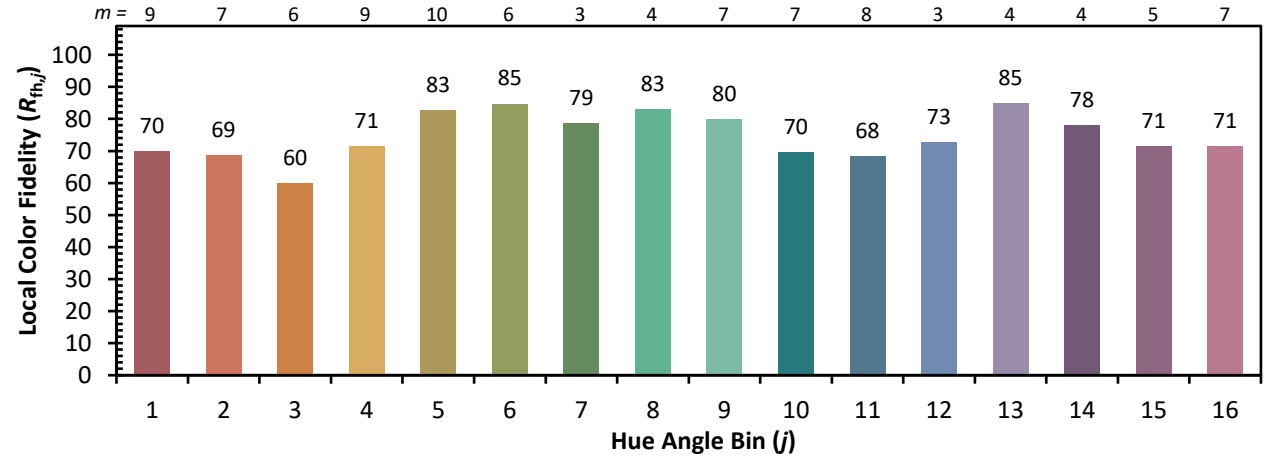
Color Rendition by Hue-Angle Bin







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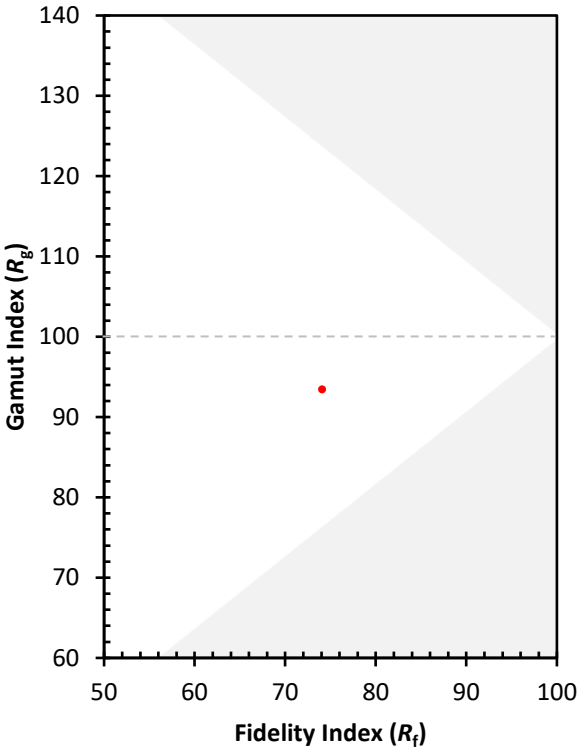
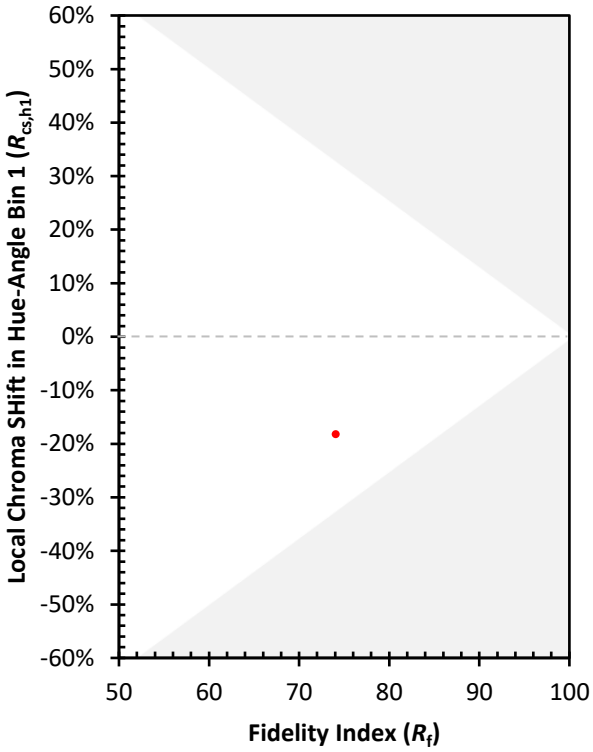
Measure Comparisons





(END OF REPORT)