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: P879574

Luminaire Tested: **MEM2-HSN-VA-170-727-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:	P879574
Test Lab:	INNOVATION CENTER(G3)
Issue Date:	10/01/2024
Manufacturer:	COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line:	STREETWORKS
Catalog Number:	MEM2-HSN-VA-170-727-U-MQ
Description:	EPIC MODERN SHORT HOUSING 170W 70CRI 2700K VISUAL COMFORT FIXTURE w/ TYPE V MEDIUM DISTRIBUTION OPTIC
Light Source:	(1) 2700K CCT, 70 CRI LEDS
Ballast/Driver:	ELECTRONIC DRIVER

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	16696.5 lumens
Efficiency:	N/A
Efficacy:	98.2 lumens/watt
Luminous Opening:	Circular (Dia: 1.12' x H: 0')
IES Classification:	Type V - Short
BUG Rating:	B4 - U0 - G3

Input Watts (W):	170
Input Voltage (V):	120
Input Current (Ain):	NR
Voltage Rise (V):	NR
Power Factor:	0.995
Total Harmonic Distortion (THDi):	5.9%
Frequency (hertz):	60
Stabilization Time:	NR
Operation Time:	NR
Ambient Temperature (°C):	NR
Test Distance:	24 FT

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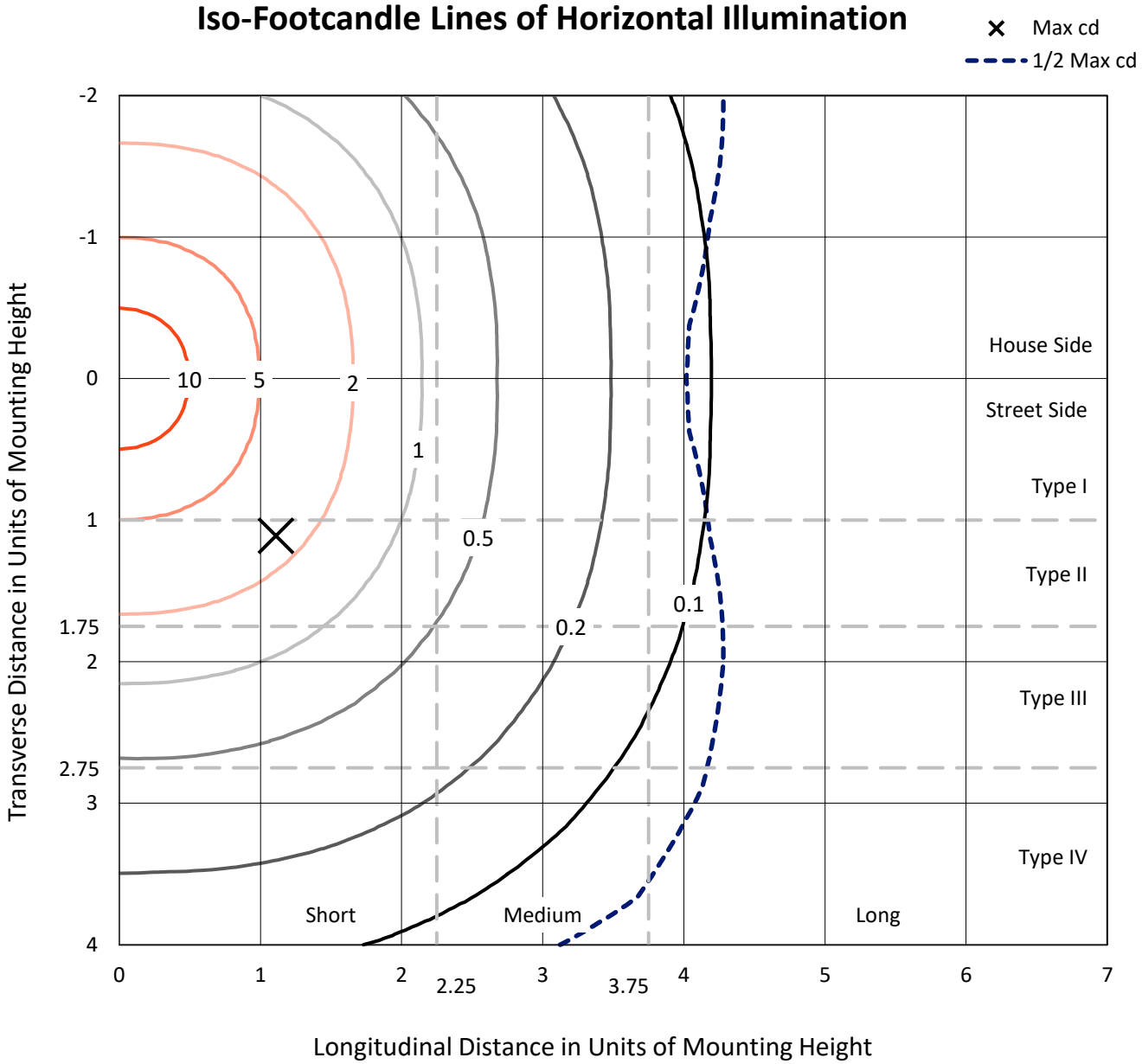
REPORT NUMBER: P879574
CATALOG NUMBER: MEM2-HSN-VA-170-727-U-MQ

Iso-Footcandle Lines of Horizontal Illumination



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

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REPORT NUMBER: P879574
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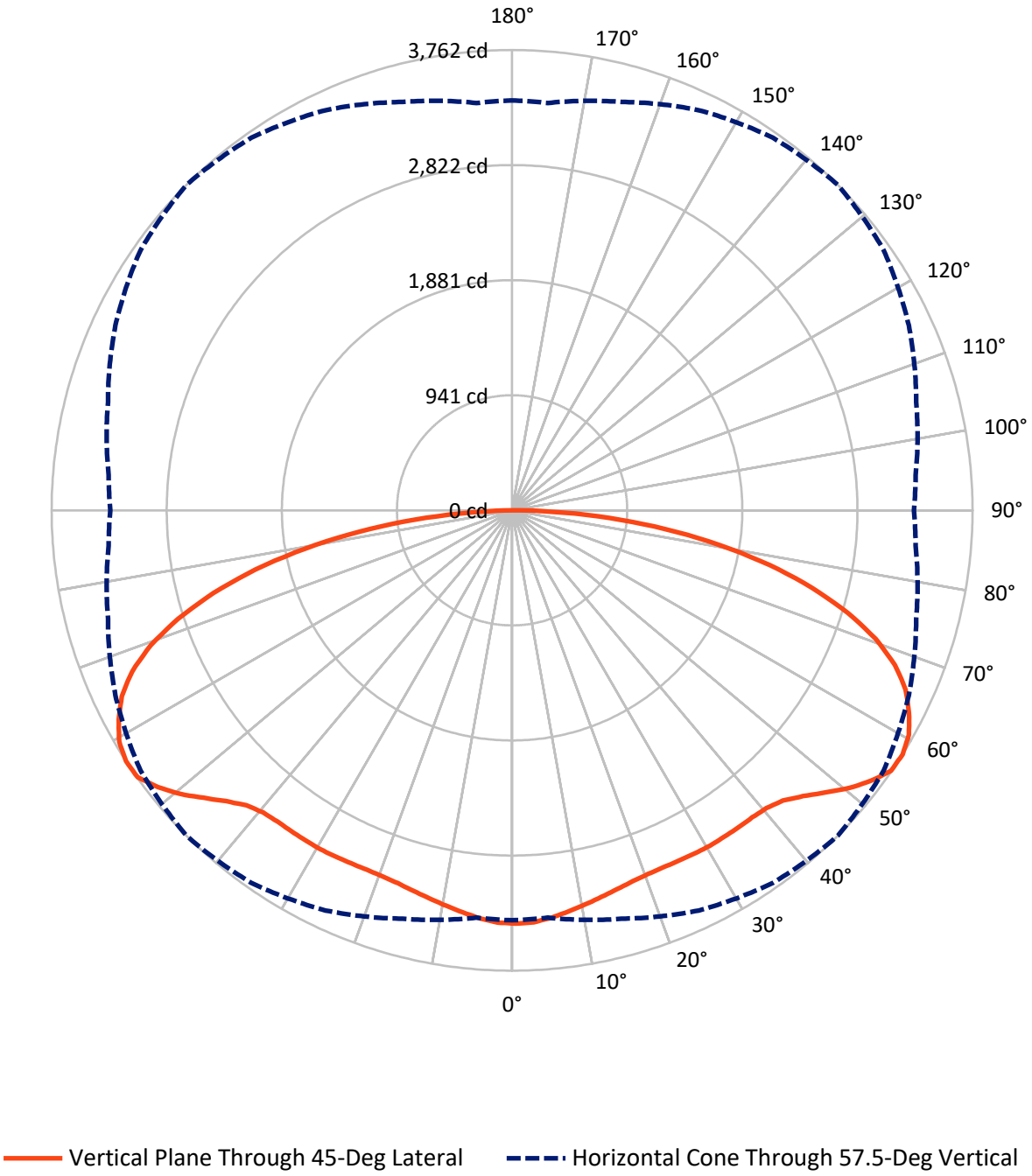
Luminous Intensity Polar Plot



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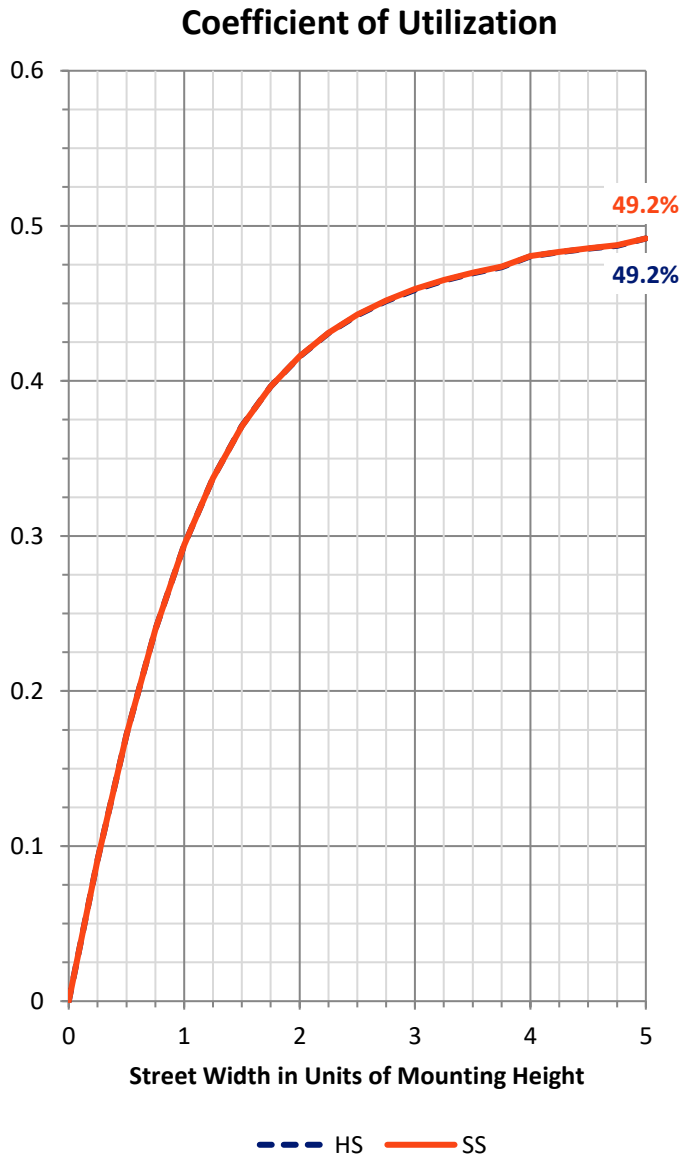
REPORT NUMBER: P879574
CATALOG NUMBER: MEM2-HSN-VA-170-727-U-MQ

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	8348.2	0.0	8348.2
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	8348.2	0.0	8348.2
	% Fixture	50.0	0.0	50.0
Total	Lumens	16696.5	0.0	16696.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	317.1	1.9
10°-20°	908.9	5.4
20°-30°	1460.6	8.7
30°-40°	1979.9	11.9
40°-50°	2528.5	15.1
50°-60°	3151.7	18.9
60°-70°	3211.5	19.2
70°-80°	2379.6	14.3
80°-90°	758.8	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°	16696.5	100.0
0°-180°	16696.5	100.0



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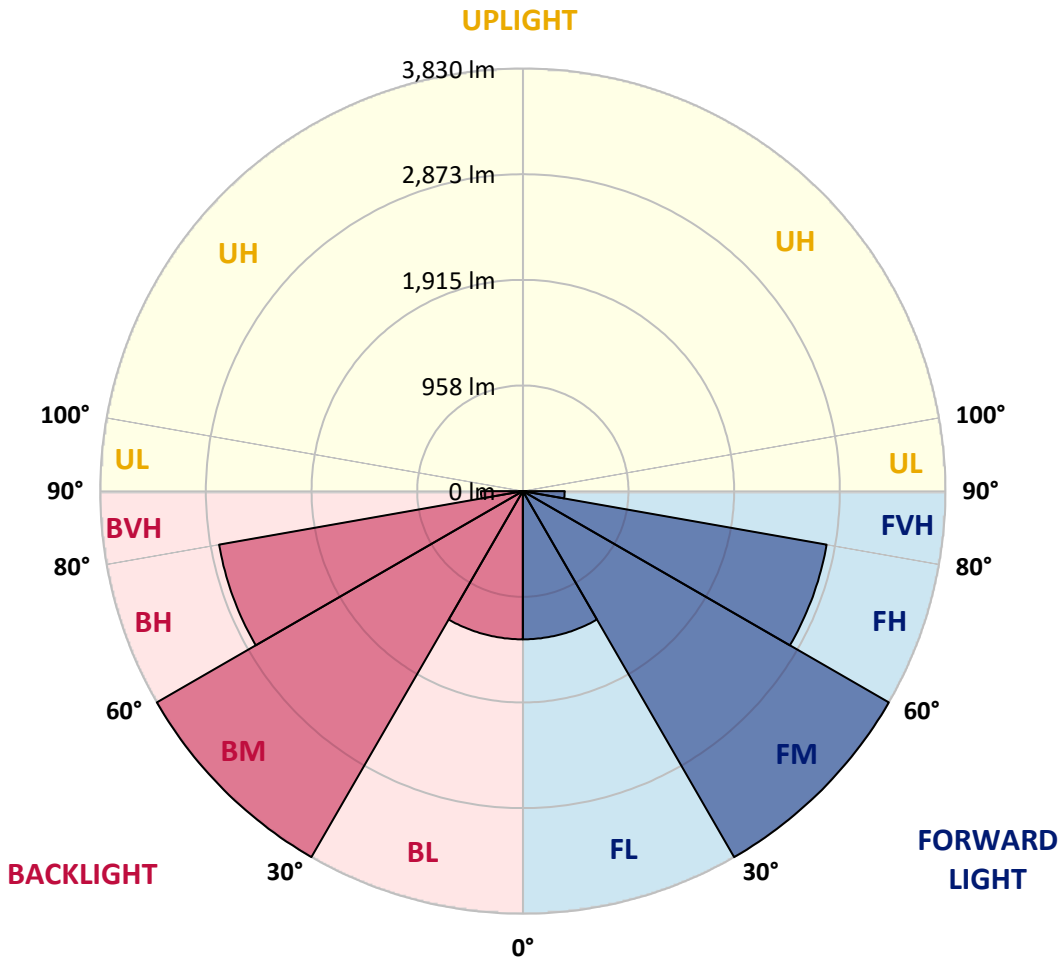
Scaled Data Report

REPORT NUMBER: P879574
CATALOG NUMBER: MEM2-HSN-VA-170-727-U-MQ

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	1343.3	8.0			
FM	(30°-60°)	3830.1	22.9			
FH	(60°-80°)	2795.5	16.7			G2/5000
FVH	(80°-90°)	379.4	2.3			G3/500
BL	(0°-30°)	1343.3	8.0	B3/2500		
BM	(30°-60°)	3830.1	22.9	B3/5000		
BH	(60°-80°)	2795.5	16.7	B4/5000		G2/5000
BVH	(80°-90°)	379.4	2.3			G3/500
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G3
Type V Short



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REPORT NUMBER: P879574
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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	3377.6	3377.6	3377.6	3377.6	3377.6	3377.6	3377.6	3377.6	3377.6	3377.6	3377.6
2.5°	3371.8	3371.8	3371.0	3371.0	3370.1	3371.0	3371.8	3371.8	3371.0	3370.1	3369.3
5°	3347.7	3348.5	3348.5	3346.9	3345.2	3345.2	3345.2	3346.0	3344.4	3345.2	3344.4
7.5°	3312.8	3310.3	3312.8	3312.0	3312.8	3310.3	3314.4	3312.8	3310.3	3312.0	3312.0
10°	3273.7	3274.6	3275.4	3274.6	3277.0	3276.2	3275.4	3274.6	3272.9	3274.6	3272.1
12.5°	3237.2	3238.0	3240.5	3241.3	3243.8	3243.0	3243.8	3242.1	3241.3	3238.0	3237.2
15°	3202.2	3203.9	3207.2	3209.7	3212.2	3213.1	3211.4	3210.6	3206.4	3203.9	3202.2
17.5°	3173.2	3173.2	3178.1	3182.3	3186.5	3187.3	3186.5	3182.3	3176.5	3170.7	3171.5
20°	3153.2	3153.2	3159.0	3165.7	3171.5	3173.2	3170.7	3163.2	3154.0	3149.9	3149.1
22.5°	3144.1	3144.9	3150.7	3158.2	3166.5	3168.2	3163.2	3154.0	3144.1	3136.6	3135.8
25°	3144.9	3143.2	3148.2	3159.9	3169.0	3170.7	3166.5	3154.0	3142.4	3135.8	3133.3
27.5°	3142.4	3143.2	3149.1	3160.7	3172.3	3175.7	3169.0	3154.0	3138.3	3132.4	3130.8
30°	3141.6	3142.4	3144.1	3163.2	3176.5	3182.3	3172.3	3152.4	3139.1	3129.9	3129.1
32.5°	3138.3	3134.1	3145.7	3157.4	3174.0	3181.5	3171.5	3153.2	3131.6	3125.0	3121.6
35°	3125.0	3129.1	3139.1	3159.0	3178.1	3183.1	3171.5	3149.1	3129.9	3116.6	3115.8
37.5°	3122.5	3122.5	3138.3	3159.0	3178.1	3185.6	3175.7	3150.7	3124.1	3107.5	3107.5
40°	3119.1	3118.3	3139.1	3164.8	3189.8	3199.8	3186.5	3155.7	3123.3	3107.5	3099.2
42.5°	3128.3	3133.3	3157.4	3194.8	3226.3	3243.0	3223.9	3189.8	3151.5	3121.6	3120.8
45°	3171.5	3182.3	3207.2	3270.4	3312.8	3332.7	3310.3	3251.3	3191.4	3151.5	3149.1
47.5°	3238.8	3235.5	3294.5	3361.0	3423.3	3444.9	3412.5	3343.5	3257.1	3208.9	3196.4
50°	3285.4	3293.7	3354.3	3450.7	3543.8	3568.8	3521.4	3432.5	3338.5	3272.1	3260.4
52.5°	3348.5	3350.2	3427.5	3549.6	3645.2	3672.7	3626.9	3516.4	3390.1	3307.0	3301.1
55°	3356.0	3383.4	3477.3	3610.3	3725.0	3757.4	3700.9	3582.9	3435.8	3332.7	3322.8
57.5°	3350.2	3341.9	3455.7	3608.7	3716.7	3762.4	3706.7	3576.2	3418.3	3309.5	3282.9
60°	3230.5	3265.4	3390.9	3540.5	3679.3	3725.0	3660.2	3527.2	3354.3	3234.7	3223.9
62.5°	3149.1	3164.0	3278.7	3479.8	3593.7	3639.4	3589.5	3433.3	3248.8	3124.1	3109.2
65°	3021.9	3033.5	3168.2	3333.6	3492.3	3533.0	3469.0	3337.7	3139.9	3002.8	2975.4
67.5°	2819.1	2850.7	2983.7	3193.9	3303.6	3373.5	3316.1	3131.6	2952.1	2817.4	2797.5
70°	2583.1	2625.5	2762.6	2934.6	3117.5	3152.4	3073.4	2947.9	2746.8	2603.0	2568.1
72.5°	2355.4	2358.7	2486.7	2688.6	2804.1	2869.0	2824.1	2658.7	2461.7	2339.6	2318.0
75°	2037.0	2037.9	2178.3	2343.7	2490.0	2532.4	2460.9	2344.5	2169.2	2032.1	2018.8
77.5°	1668.0	1690.5	1815.1	1974.7	2090.2	2151.7	2101.0	1969.7	1806.0	1688.8	1675.5
80°	1308.2	1336.4	1424.5	1567.5	1667.2	1721.2	1666.4	1551.7	1427.0	1312.3	1314.0
82.5°	923.4	944.1	1027.2	1124.5	1221.7	1261.6	1238.3	1153.6	1039.7	939.1	911.7
85°	515.3	541.9	597.6	683.2	748.0	799.5	770.4	703.9	605.0	541.9	540.2
87.5°	151.3	163.7	186.2	243.5	305.0	327.5	320.8	304.2	266.8	239.4	221.9
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: SP1-2407-176-12

Test Date: 10/23/2024

Luminaire Tested: MEM2-HTN-VA-130-727-U-RW

Data in this report applies to families of products including MEM2-HTN-VA-130-727-U-RW

Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

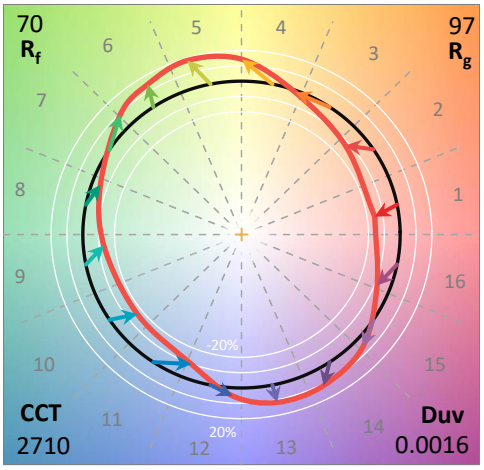
Test Information

Test Method:	LM-79-2019
Report Number:	SP1-2407-176-12
Test Lab:	COOPER LIGHTING SOLUTIONS
Photometer:	SP1 - 76IN SPHERE
Measurement Geometry:	4π
Issue Date:	10/24/2024
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	Streetworks
Catalog Number:	**MEM2-HTN-VA-130-727-U-RW**
Description:	EPIC MODERN VISUAL COMFORT 130W WAVESTREAM RECTANGULAR WIDE

Spectral Parameters

CCT (K):	2710	CRI (Ra):	70.4		
CIE u':	0.2616	R1:	67.3	R9:	-24.6
CIE v':	0.5295	R2:	79.1	R10:	51.3
Duv:	0.0016	R3:	89.5	R11:	61.0
CIE x:	0.4619	R4:	67.6	R12:	41.2
CIE y:	0.4154	R5:	64.7	R13:	68.7
CIE z:	0.1227	R6:	69.6	R14:	93.5
Peak Wavelength (nm):	601	R7:	78.9	R15:	60.6
Dominant Wavelength (nm):	583	R8:	46.2		
Purity:	63.3407				

Rf:	70.4
Rg:	96.7



Test Conditions

Stabilization Time:	47M
Operation Time:	1H 47M
Sphere Temperature (°C):	24.4

REPORT NUMBER: SP1-2407-176-12

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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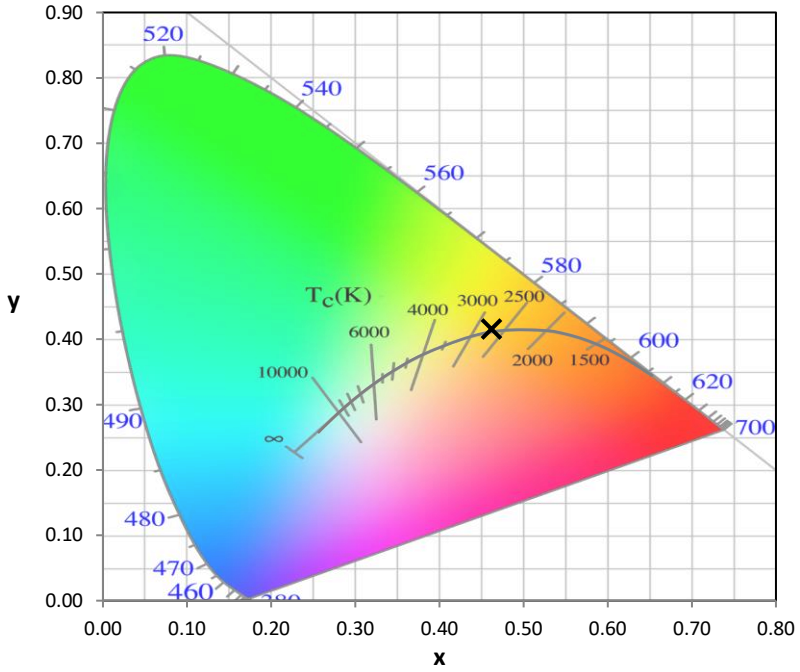
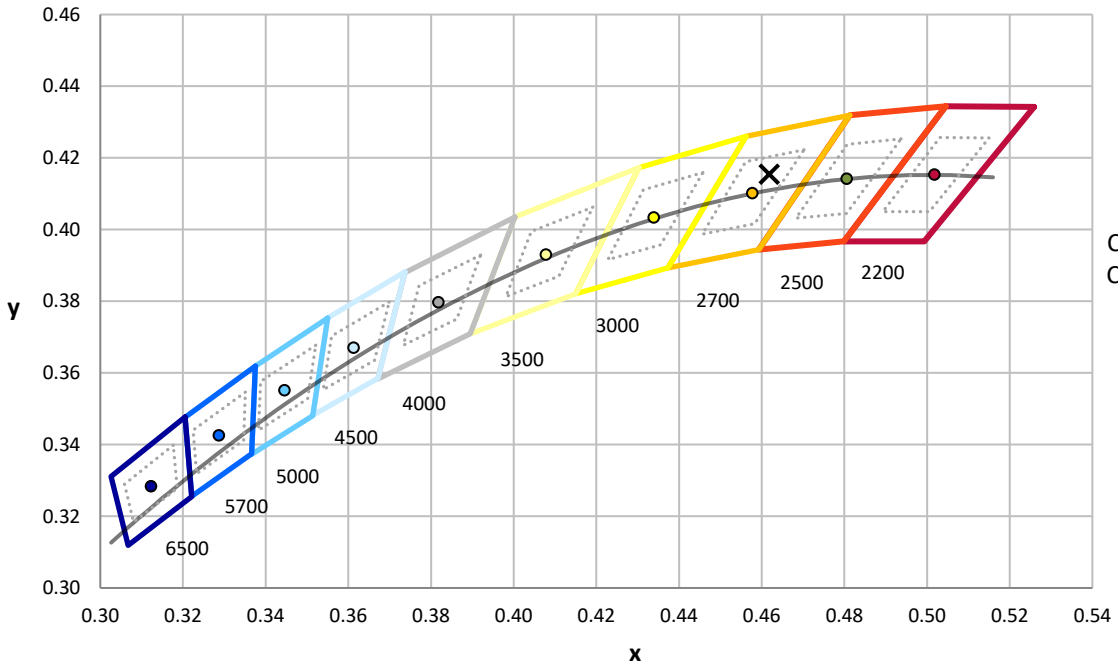
CIE 1931 Chromaticity Diagram



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



CCT = 2710K
CIE x = 0.4619
CIE y = 0.4154
Duv = 0.0016

Point lies inside the ANSI 2700K 4-step quadrangle

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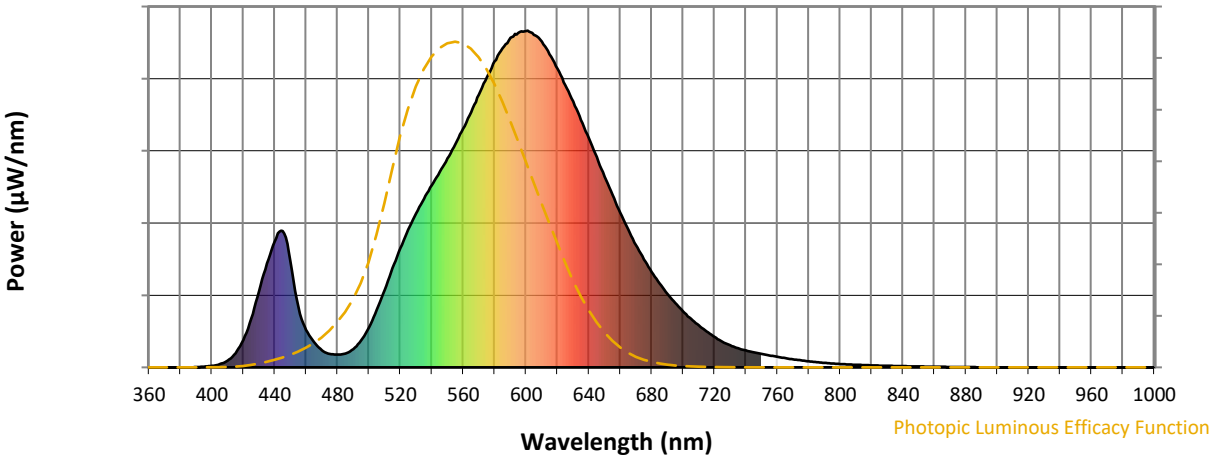
Photopic Flux vs. Wavelength

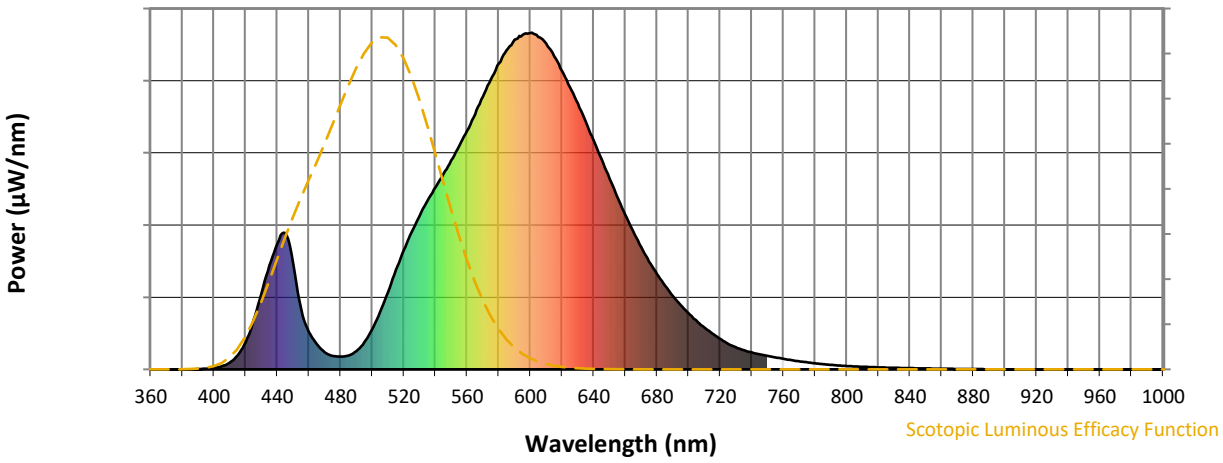


Photopic Lumens: NR

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	54	NR	620	887	NR	750	40	NR	880	1	NR
365	0	NR	495	80	NR	625	838	NR	755	35	NR	885	1	NR
370	0	NR	500	119	NR	630	790	NR	760	31	NR	890	0	NR
375	0	NR	505	171	NR	635	735	NR	765	27	NR	895	0	NR
380	0	NR	510	230	NR	640	681	NR	770	24	NR	900	0	NR
385	0	NR	515	295	NR	645	624	NR	775	21	NR	905	0	NR
390	1	NR	520	354	NR	650	567	NR	780	18	NR	910	0	NR
395	2	NR	525	408	NR	655	512	NR	785	15	NR	915	0	NR
400	5	NR	530	457	NR	660	459	NR	790	13	NR	920	0	NR
405	9	NR	535	500	NR	665	410	NR	795	12	NR	925	0	NR
410	20	NR	540	541	NR	670	363	NR	800	10	NR	930	0	NR
415	42	NR	545	581	NR	675	320	NR	805	9	NR	935	0	NR
420	81	NR	550	620	NR	680	283	NR	810	8	NR	940	0	NR
425	145	NR	555	664	NR	685	249	NR	815	7	NR	945	0	NR
430	225	NR	560	709	NR	690	219	NR	820	6	NR	950	0	NR
435	309	NR	565	758	NR	695	191	NR	825	5	NR	955	0	NR
440	373	NR	570	810	NR	700	166	NR	830	5	NR	960	0	NR
445	405	NR	575	861	NR	705	144	NR	835	4	NR	965	0	NR
450	316	NR	580	908	NR	710	124	NR	840	4	NR	970	0	NR
455	180	NR	585	948	NR	715	106	NR	845	3	NR	975	0	NR
460	111	NR	590	978	NR	720	90	NR	850	3	NR	980	0	NR
465	75	NR	595	993	NR	725	76	NR	855	2	NR	985	0	NR
470	50	NR	600	999	NR	730	65	NR	860	2	NR	990	0	NR
475	40	NR	605	988	NR	735	57	NR	865	2	NR	995	0	NR
480	38	NR	610	967	NR	740	50	NR	870	1	NR	1000	0	NR
485	41	NR	615	930	NR	745	45	NR	875	1	NR			

REPORT NUMBER: SP1-2407-176-12

Scotopic Flux vs. Wavelength



Scotopic Lumens: NR **S/P: 1.02**

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	54	NR	620	887	NR	750	40	NR	880	1	NR
365	0	NR	495	80	NR	625	838	NR	755	35	NR	885	1	NR
370	0	NR	500	119	NR	630	790	NR	760	31	NR	890	0	NR
375	0	NR	505	171	NR	635	735	NR	765	27	NR	895	0	NR
380	0	NR	510	230	NR	640	681	NR	770	24	NR	900	0	NR
385	0	NR	515	295	NR	645	624	NR	775	21	NR	905	0	NR
390	1	NR	520	354	NR	650	567	NR	780	18	NR	910	0	NR
395	2	NR	525	408	NR	655	512	NR	785	15	NR	915	0	NR
400	5	NR	530	457	NR	660	459	NR	790	13	NR	920	0	NR
405	9	NR	535	500	NR	665	410	NR	795	12	NR	925	0	NR
410	20	NR	540	541	NR	670	363	NR	800	10	NR	930	0	NR
415	42	NR	545	581	NR	675	320	NR	805	9	NR	935	0	NR
420	81	NR	550	620	NR	680	283	NR	810	8	NR	940	0	NR
425	145	NR	555	664	NR	685	249	NR	815	7	NR	945	0	NR
430	225	NR	560	709	NR	690	219	NR	820	6	NR	950	0	NR
435	309	NR	565	758	NR	695	191	NR	825	5	NR	955	0	NR
440	373	NR	570	810	NR	700	166	NR	830	5	NR	960	0	NR
445	405	NR	575	861	NR	705	144	NR	835	4	NR	965	0	NR
450	316	NR	580	908	NR	710	124	NR	840	4	NR	970	0	NR
455	180	NR	585	948	NR	715	106	NR	845	3	NR	975	0	NR
460	111	NR	590	978	NR	720	90	NR	850	3	NR	980	0	NR
465	75	NR	595	993	NR	725	76	NR	855	2	NR	985	0	NR
470	50	NR	600	999	NR	730	65	NR	860	2	NR	990	0	NR
475	40	NR	605	988	NR	735	57	NR	865	2	NR	995	0	NR
480	38	NR	610	967	NR	740	50	NR	870	1	NR	1000	0	NR
485	41	NR	615	930	NR	745	45	NR	875	1	NR			

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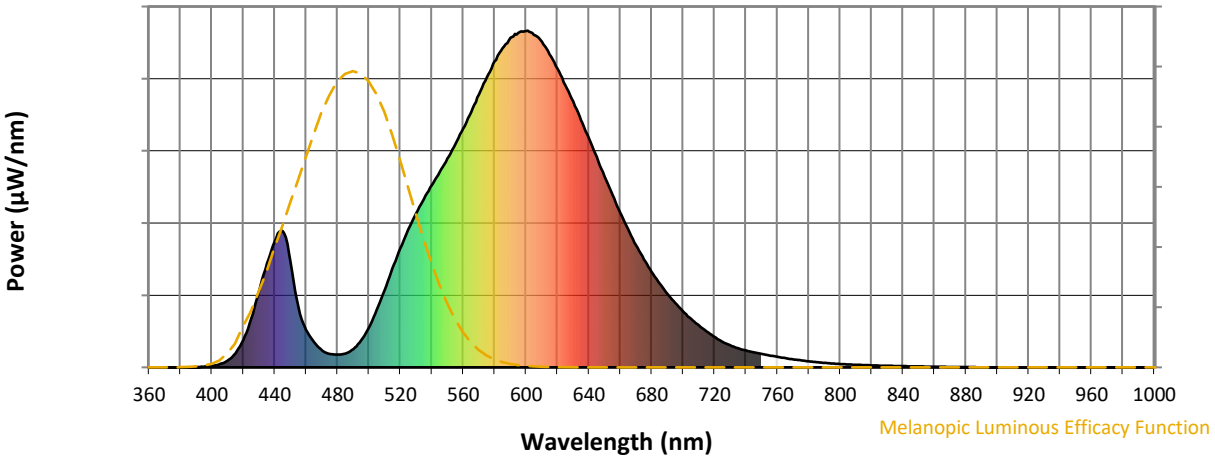
Melanopic Flux vs. Wavelength



Melanopic Lumens: NR **M/P: 1.71**

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	54	NR	620	887	NR	750	40	NR	880	1	NR
365	0	NR	495	80	NR	625	838	NR	755	35	NR	885	1	NR
370	0	NR	500	119	NR	630	790	NR	760	31	NR	890	0	NR
375	0	NR	505	171	NR	635	735	NR	765	27	NR	895	0	NR
380	0	NR	510	230	NR	640	681	NR	770	24	NR	900	0	NR
385	0	NR	515	295	NR	645	624	NR	775	21	NR	905	0	NR
390	1	NR	520	354	NR	650	567	NR	780	18	NR	910	0	NR
395	2	NR	525	408	NR	655	512	NR	785	15	NR	915	0	NR
400	5	NR	530	457	NR	660	459	NR	790	13	NR	920	0	NR
405	9	NR	535	500	NR	665	410	NR	795	12	NR	925	0	NR
410	20	NR	540	541	NR	670	363	NR	800	10	NR	930	0	NR
415	42	NR	545	581	NR	675	320	NR	805	9	NR	935	0	NR
420	81	NR	550	620	NR	680	283	NR	810	8	NR	940	0	NR
425	145	NR	555	664	NR	685	249	NR	815	7	NR	945	0	NR
430	225	NR	560	709	NR	690	219	NR	820	6	NR	950	0	NR
435	309	NR	565	758	NR	695	191	NR	825	5	NR	955	0	NR
440	373	NR	570	810	NR	700	166	NR	830	5	NR	960	0	NR
445	405	NR	575	861	NR	705	144	NR	835	4	NR	965	0	NR
450	316	NR	580	908	NR	710	124	NR	840	4	NR	970	0	NR
455	180	NR	585	948	NR	715	106	NR	845	3	NR	975	0	NR
460	111	NR	590	978	NR	720	90	NR	850	3	NR	980	0	NR
465	75	NR	595	993	NR	725	76	NR	855	2	NR	985	0	NR
470	50	NR	600	999	NR	730	65	NR	860	2	NR	990	0	NR
475	40	NR	605	988	NR	735	57	NR	865	2	NR	995	0	NR
480	38	NR	610	967	NR	740	50	NR	870	1	NR	1000	0	NR
485	41	NR	615	930	NR	745	45	NR	875	1	NR			

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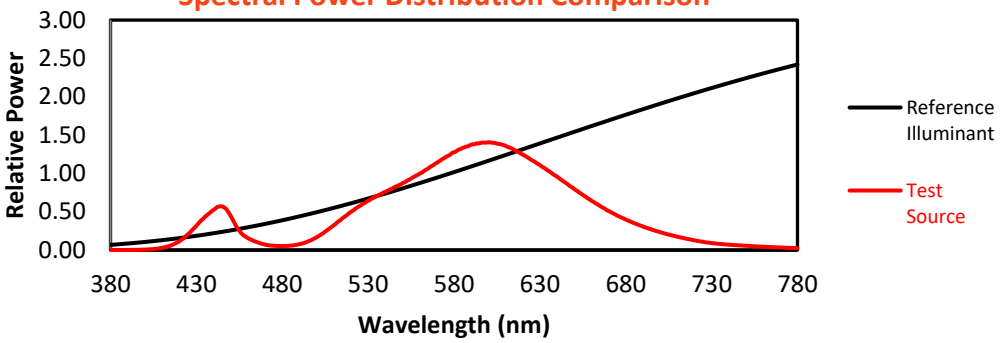
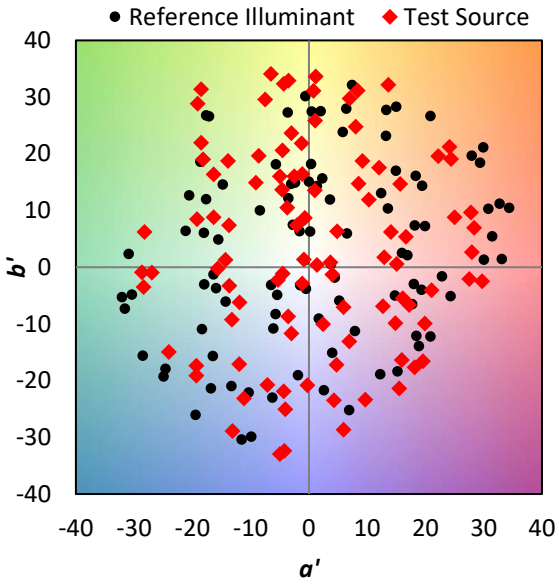
Summary

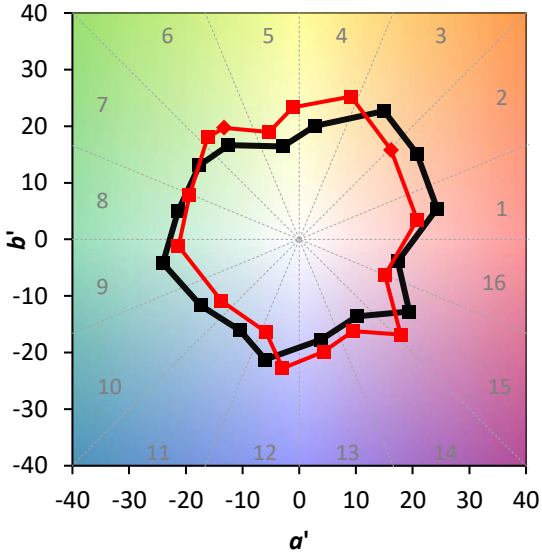
R_f = 70.4
R_g = 96.7
CIE R_a = 70.4
R_9 = -24.6

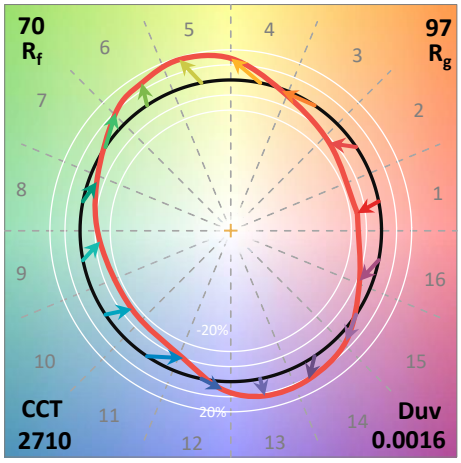
Spectral Power Distribution Comparison

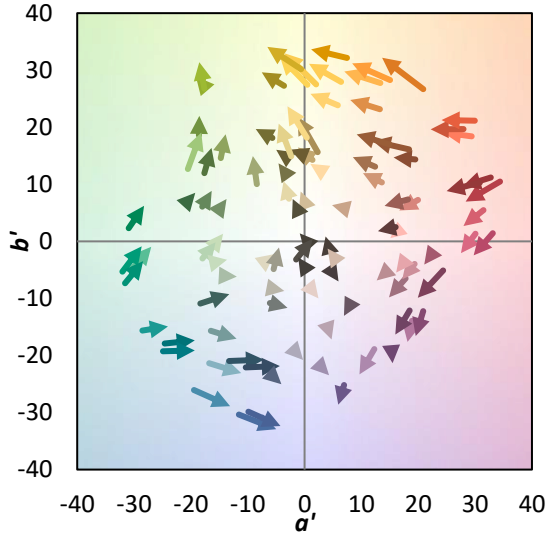


Color Vector Graphics









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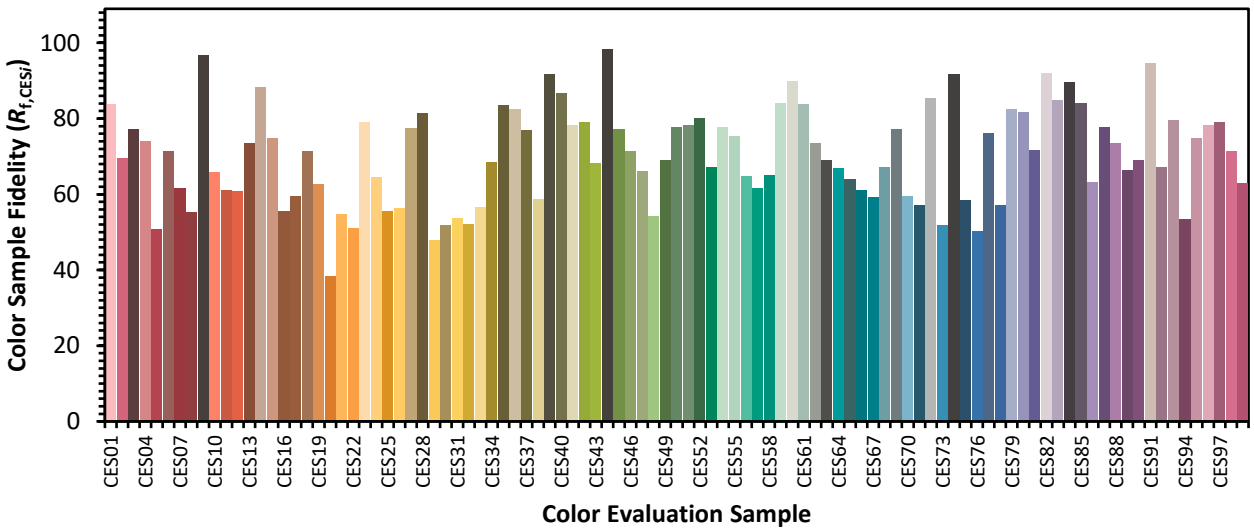
Individual Sample Fidelity Index ($R_{f,i}$)

CES01 = 86	CES26 = 56	CES51 = 78	CES76 = 50
CES02 = 63	CES27 = 77	CES52 = 80	CES77 = 76
CES03 = 31	CES28 = 81	CES53 = 67	CES78 = 57
CES04 = 71	CES29 = 48	CES54 = 78	CES79 = 82
CES05 = 50	CES30 = 52	CES55 = 75	CES80 = 82
CES06 = 52	CES31 = 54	CES56 = 65	CES81 = 72
CES07 = 42	CES32 = 52	CES57 = 62	CES82 = 92
CES08 = 41	CES33 = 57	CES58 = 65	CES83 = 85
CES09 = 29	CES34 = 69	CES59 = 84	CES84 = 90
CES10 = 77	CES35 = 84	CES60 = 90	CES85 = 84
CES11 = 60	CES36 = 82	CES61 = 84	CES86 = 63
CES12 = 66	CES37 = 77	CES62 = 73	CES87 = 78
CES13 = 43	CES38 = 59	CES63 = 69	CES88 = 74
CES14 = 74	CES39 = 92	CES64 = 67	CES89 = 66
CES15 = 71	CES40 = 87	CES65 = 64	CES90 = 69
CES16 = 48	CES41 = 78	CES66 = 61	CES91 = 95
CES17 = 51	CES42 = 79	CES67 = 59	CES92 = 67
CES18 = 57	CES43 = 68	CES68 = 67	CES93 = 80
CES19 = 73	CES44 = 98	CES69 = 77	CES94 = 54
CES20 = 67	CES45 = 77	CES70 = 60	CES95 = 75
CES21 = 88	CES46 = 71	CES71 = 57	CES96 = 78
CES22 = 80	CES47 = 66	CES72 = 85	CES97 = 79
CES23 = 92	CES48 = 54	CES73 = 52	CES98 = 71
CES24 = 92	CES49 = 69	CES74 = 92	CES99 = 63
CES25 = 73	CES50 = 78	CES75 = 58	



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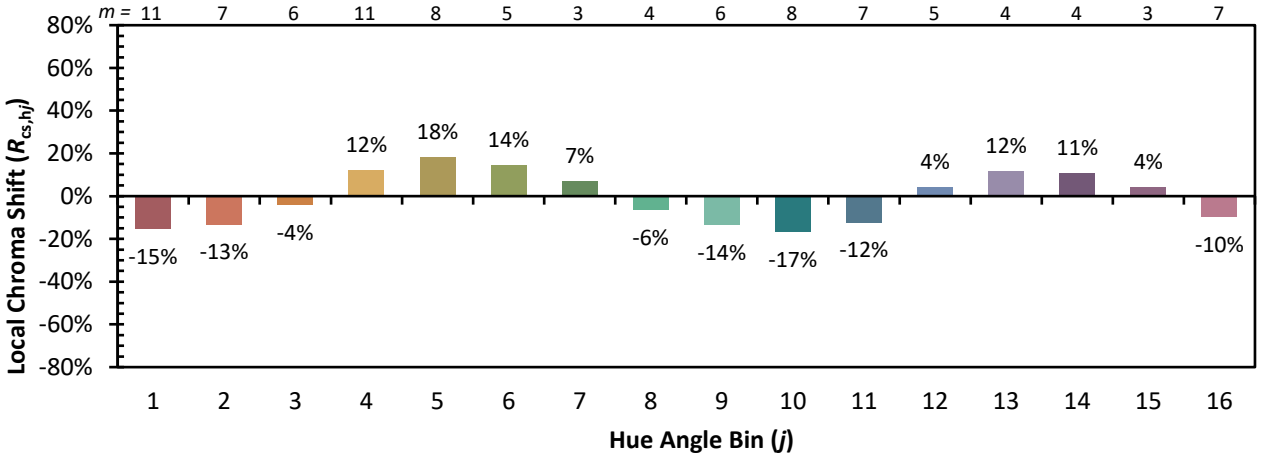
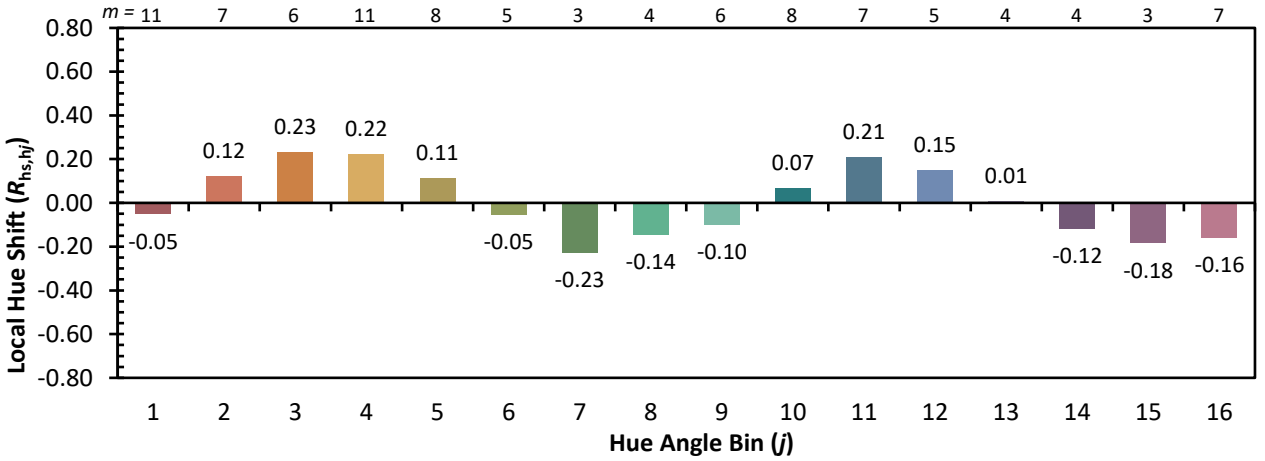
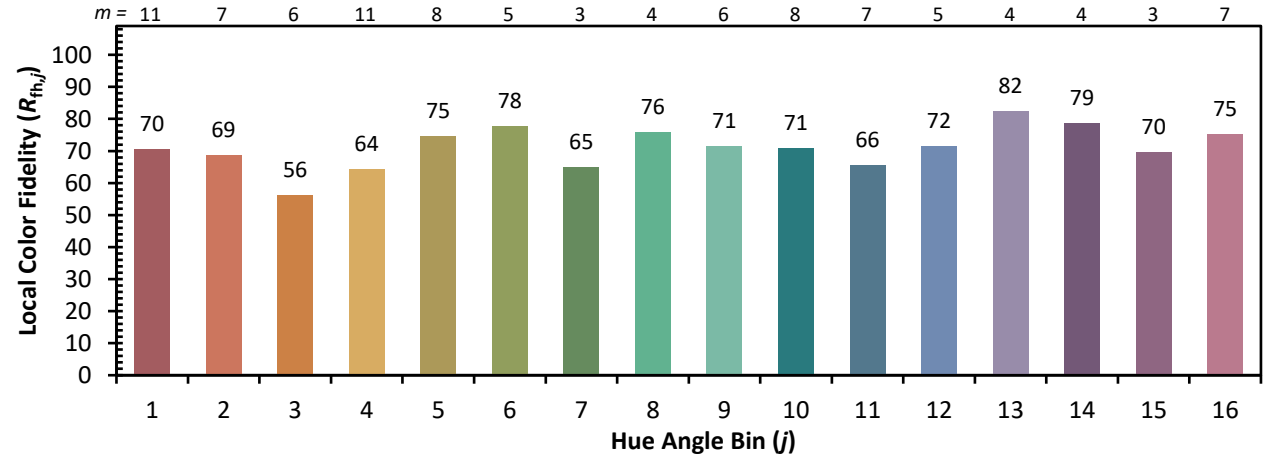
Color Rendition by Hue-Angle Bin







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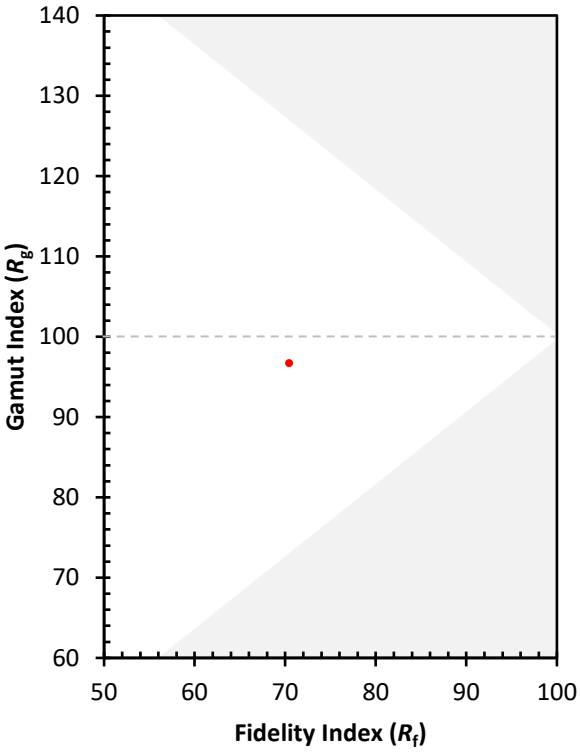
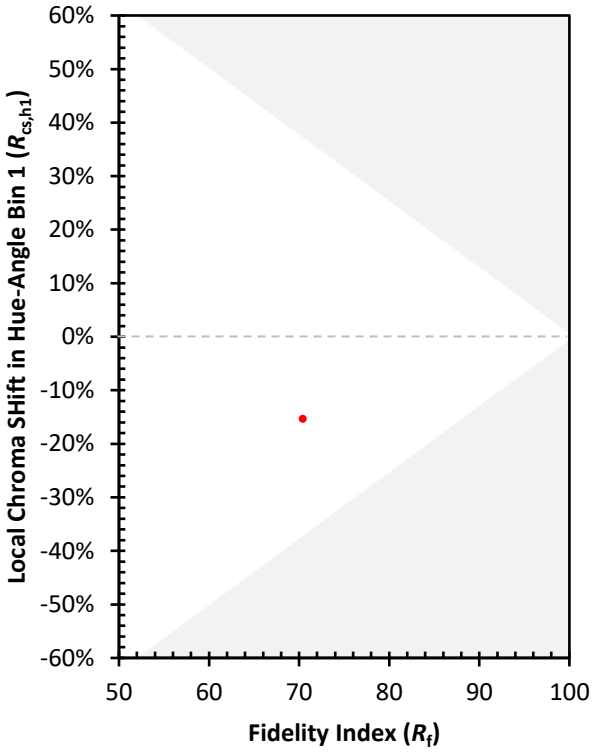
Measure Comparisons





(END OF REPORT)