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: P880503

Luminaire Tested: **MEM2-HSN-VA-60-AMB-U-WQ**

Issue Date: 10/02/2024

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:	P880503
Test Lab:	INNOVATION CENTER(G3)
Issue Date:	10/02/2024
Manufacturer:	COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line:	STREETWORKS
Catalog Number:	MEM2-HSN-VA-60-AMB-U-WQ
Description:	EPIC MODERN SHORT HOUSING 60W 0CRI 1554K VISUAL COMFORT FIXTURE w/ TYPE V WIDE DISTRIBUTION OPTIC
Light Source:	(1) 1554K CCT, 0 CRI LEDS
Ballast/Driver:	ELECTRONIC DRIVER

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	1970.9 lumens
Efficiency:	N/A
Efficacy:	31.3 lumens/watt
Luminous Opening:	Circular (Dia: 1.12' x H: 0')
IES Classification:	Type V - Short
BUG Rating:	B1 - U0 - G1

Input Watts (W):	63
Input Voltage (V):	120
Input Current (Ain):	NR
Voltage Rise (V):	NR
Power Factor:	0.98
Total Harmonic Distortion (THDi):	16%
Frequency (hertz):	60
Stabilization Time:	NR
Operation Time:	NR
Ambient Temperature (°C):	NR
Test Distance:	24 FT

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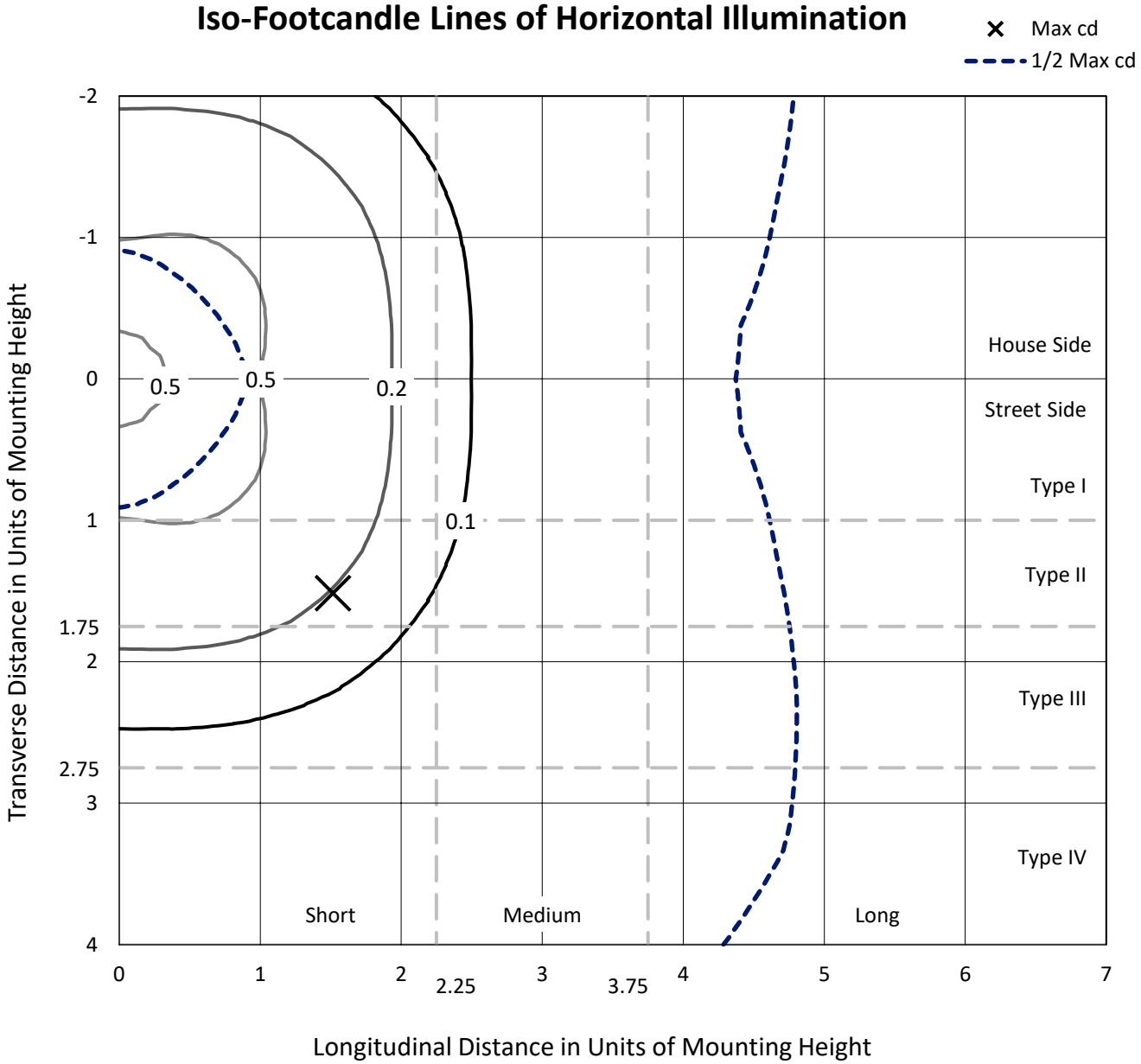
REPORT NUMBER: P880503
CATALOG NUMBER: MEM2-HSN-VA-60-AMB-U-WQ

Iso-Footcandle Lines of Horizontal Illumination



Based on 15 foot mounting height. Maximum calculated value = 0.6 fc
Type V - Short - N/A

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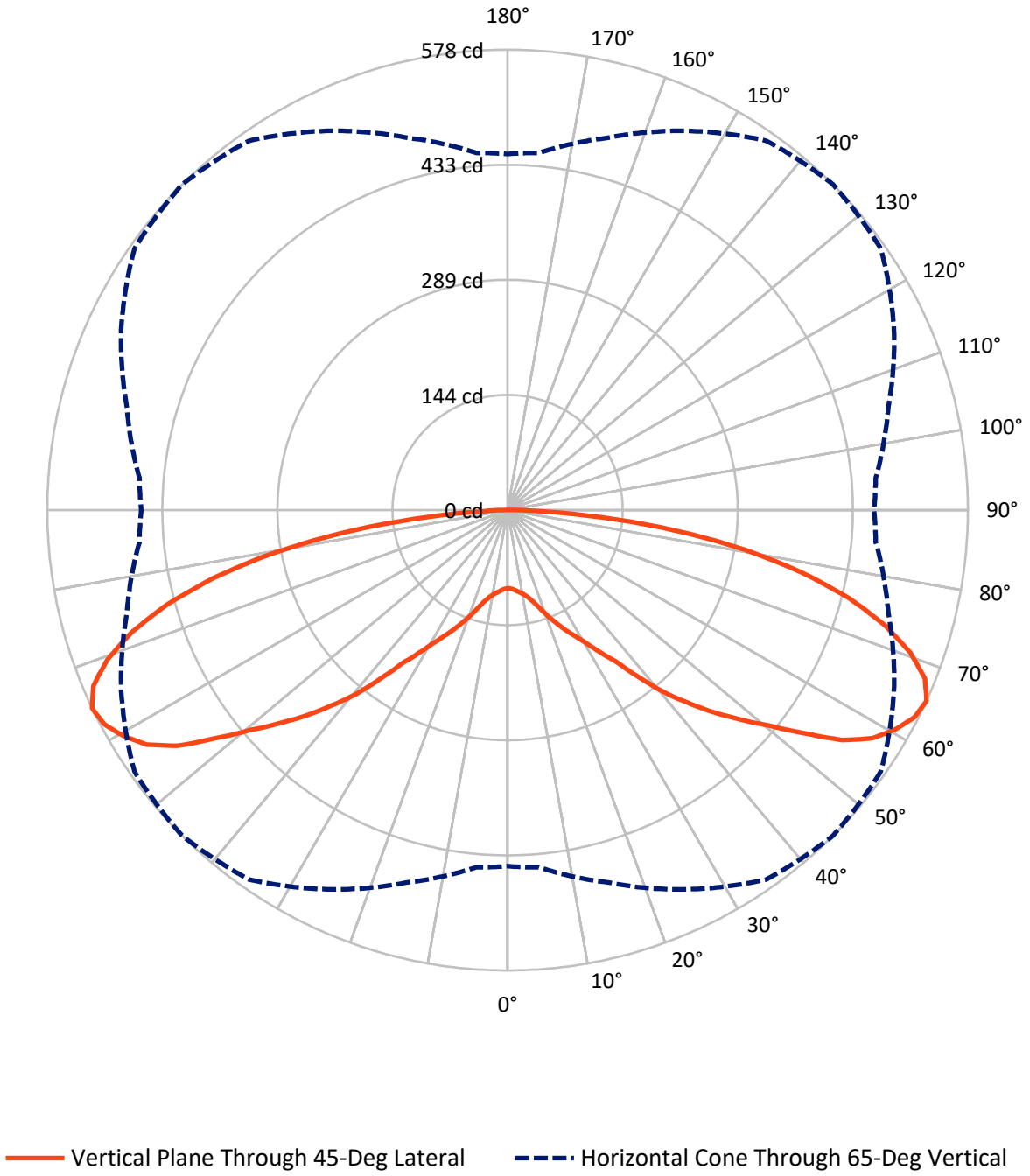
Luminous Intensity Polar Plot



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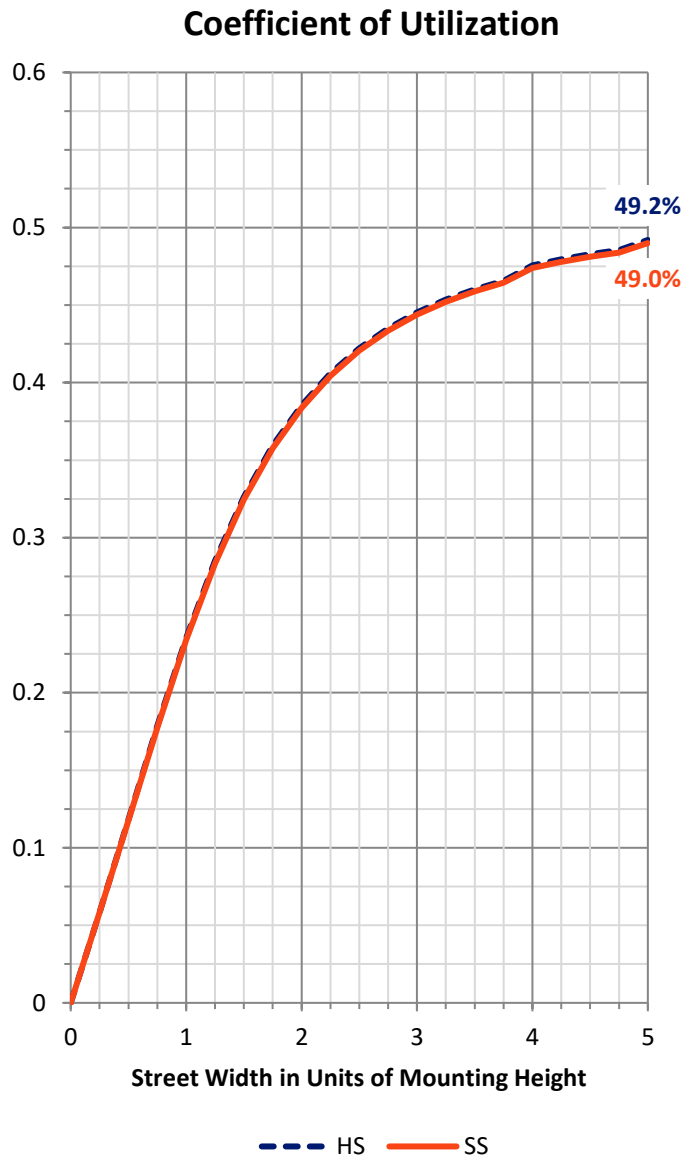
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	985.5	0.0	985.5
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	985.5	0.0	985.5
	% Fixture	50.0	0.0	50.0
Total	Lumens	1970.9	0.0	1970.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	9.9	0.5
10°-20°	34.7	1.8
20°-30°	76.5	3.9
30°-40°	146.3	7.4
40°-50°	265.7	13.5
50°-60°	415.2	21.1
60°-70°	504.5	25.6
70°-80°	402.1	20.4
80°-90°	116.1	5.9
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°	1970.9	100.0
0°-180°	1970.9	100.0



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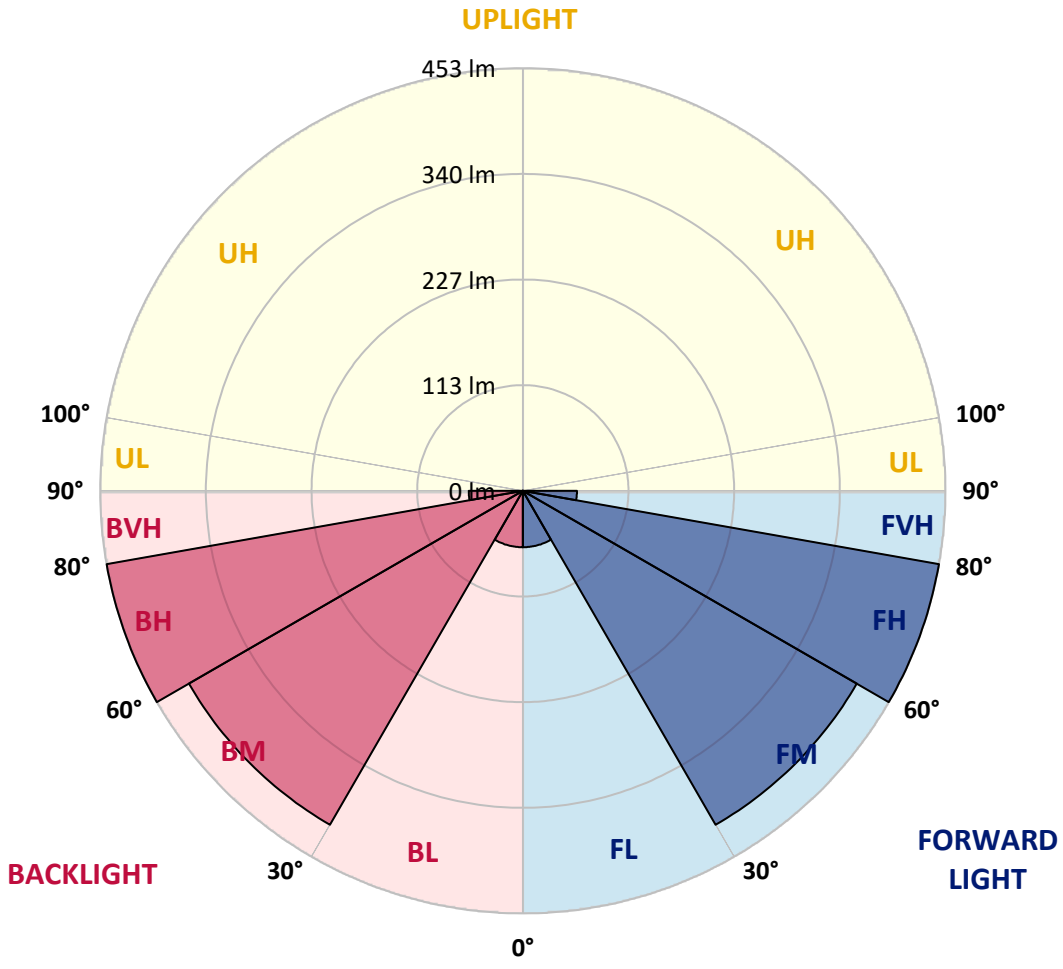
REPORT NUMBER: P880503
CATALOG NUMBER: MEM2-HSN-VA-60-AMB-U-WQ

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	60.5	3.1			
FM	(30°-60°)	413.6	21.0			
FH	(60°-80°)	453.3	23.0			G0/660
FVH	(80°-90°)	58.0	2.9			G1/100
BL	(0°-30°)	60.5	3.1	B0/110		
BM	(30°-60°)	413.6	21.0	B1/1000		
BH	(60°-80°)	453.3	23.0	B1/500		G0/660
BVH	(80°-90°)	58.0	2.9			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G1
Type V Short



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REPORT NUMBER: P880503
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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	98.1	98.1	98.1	98.1	98.1	98.1	98.1	98.1	98.1	98.1	98.1
2.5°	99.1	99.1	99.1	99.1	99.1	99.1	99.1	100.1	100.1	100.1	100.1
5°	102.1	101.1	101.1	101.1	101.1	101.1	101.1	101.1	102.1	102.1	102.1
7.5°	104.0	104.0	104.0	104.0	104.0	104.0	104.0	104.0	104.0	104.0	104.0
10°	108.0	108.0	108.0	108.0	107.0	107.0	107.0	107.0	107.0	107.0	107.0
12.5°	112.0	113.0	113.0	113.0	113.0	112.0	113.0	113.0	112.0	112.0	112.0
15°	118.9	118.9	118.9	118.9	119.9	118.9	118.9	118.9	118.9	117.9	117.9
17.5°	126.8	126.8	127.8	127.8	127.8	128.8	128.8	127.8	127.8	126.8	125.9
20°	137.7	138.7	138.7	139.7	139.7	140.7	139.7	139.7	138.7	137.7	137.7
22.5°	149.6	149.6	150.6	151.6	152.6	152.6	152.6	151.6	150.6	149.6	148.6
25°	161.5	161.5	162.5	163.5	164.5	165.5	164.5	163.5	162.5	161.5	161.5
27.5°	174.4	173.4	174.4	176.4	177.4	178.4	177.4	177.4	175.4	174.4	173.4
30°	187.3	187.3	188.3	191.3	192.2	193.2	192.2	191.3	189.3	187.3	187.3
32.5°	201.2	202.2	203.1	207.1	209.1	212.1	210.1	209.1	205.1	203.1	203.1
35°	219.0	219.0	223.0	227.9	231.9	232.9	231.9	228.9	224.0	221.0	220.0
37.5°	240.8	241.8	246.7	255.7	260.6	264.6	263.6	256.7	249.7	243.8	242.8
40°	267.6	267.6	276.5	287.4	295.3	299.3	296.3	289.4	279.4	270.5	270.5
42.5°	290.3	292.3	303.2	317.1	326.0	330.0	328.0	320.1	307.2	295.3	295.3
45°	315.1	316.1	328.0	345.8	357.7	361.7	360.7	348.8	334.0	320.1	319.1
47.5°	340.9	340.9	354.8	373.6	387.5	392.4	391.4	377.6	359.7	347.8	346.8
50°	363.7	365.7	381.5	403.3	422.1	425.1	425.1	409.3	387.5	373.6	369.6
52.5°	389.4	390.4	410.3	440.0	457.8	464.8	462.8	443.9	417.2	399.4	396.4
55°	418.2	419.2	439.0	474.7	499.4	509.3	505.4	481.6	449.9	430.1	427.1
57.5°	437.0	439.0	464.8	499.4	532.1	540.1	537.1	508.4	473.7	450.9	447.9
60°	443.9	447.9	475.7	518.3	550.0	558.9	555.9	526.2	487.5	459.8	457.8
62.5°	450.9	454.8	482.6	527.2	559.9	572.8	566.8	536.1	493.5	466.7	463.8
65°	446.9	449.9	483.6	525.2	565.8	577.7	571.8	535.1	494.5	463.8	459.8
67.5°	432.1	436.0	467.7	514.3	552.0	564.8	556.9	524.2	478.6	448.9	444.9
70°	406.3	409.3	442.0	484.6	526.2	536.1	528.2	496.5	452.9	423.1	417.2
72.5°	367.6	369.6	405.3	447.9	482.6	495.5	487.5	453.9	415.2	384.5	377.6
75°	326.0	326.0	353.8	399.4	433.0	443.0	433.0	404.3	367.6	338.9	334.0
77.5°	272.5	277.5	299.3	337.9	365.7	377.6	369.6	341.9	311.2	283.4	280.4
80°	208.1	213.1	234.9	265.6	292.3	301.2	294.3	268.5	239.8	220.0	214.0
82.5°	140.7	145.7	160.5	188.3	205.1	213.1	207.1	187.3	168.5	149.6	147.7
85°	71.3	73.3	86.2	100.1	111.0	118.9	113.0	99.1	85.2	77.3	75.3
87.5°	15.9	16.8	19.8	22.8	26.8	28.7	24.8	21.8	15.9	13.9	15.9
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: SP1-2407-176-1

Test Date: 09/23/2024

Luminaire Tested: MEM2-HTN-VA-60-AMB-U-WQ

Data in this report applies to families of products including MEM2-HTN-VA-60-AMB-U-WQ

Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

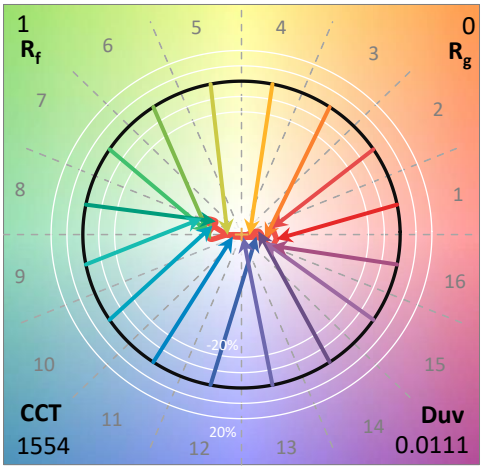
Test Information

Test Method:	LM-79-2019
Report Number:	SP1-2407-176-1
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-60-AMB-U-WQ**
Description:	EPIC MODERN VISUAL COMFORT 60W AMBER WAVESTREAM WIDE

Spectral Parameters

CCT (K):	1554
CIE u':	0.3509
CIE v':	0.5472
Duv:	0.0111
CIE x:	0.5903
CIE y:	0.4091
CIE z:	0.0006
Peak Wavelength (nm):	596
Dominant Wavelength (nm):	592
Purity:	99.98723
Rf:	1.1
Rg:	0

CRI (Ra):	-22.5				
R1:	-35.4	R9:	-390.1		
R2:	51.6	R10:	27.7		
R3:	17.0	R11:	-96.9		
R4:	-69.3	R12:	-12.7		
R5:	-41.7	R13:	-16.6		
R6:	40.2	R14:	45.8		
R7:	-7.3	R15:	-68.6		
R8:	-135.2				



Test Conditions

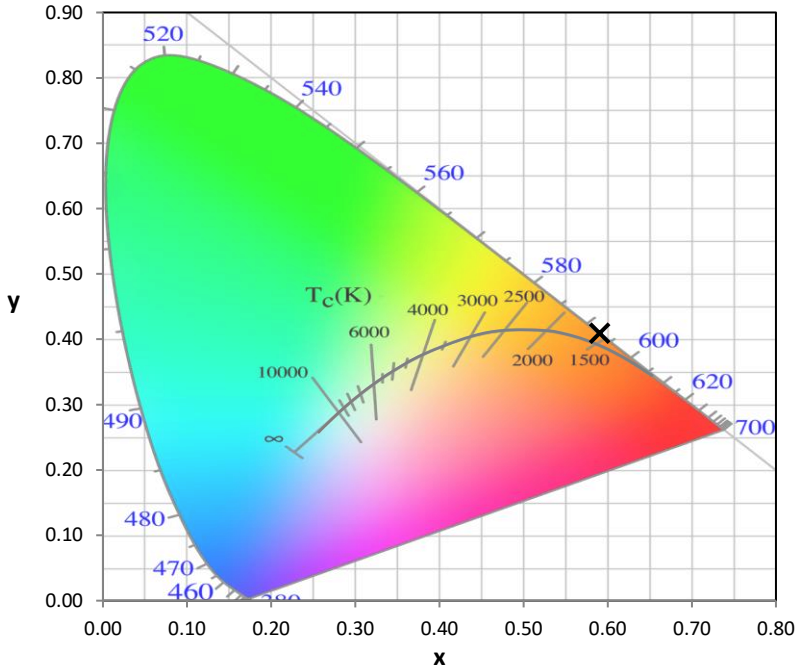
Stabilization Time:	98M
Operation Time:	2H 38M
Sphere Temperature (°C):	25.2

REPORT NUMBER: SP1-2407-176-1

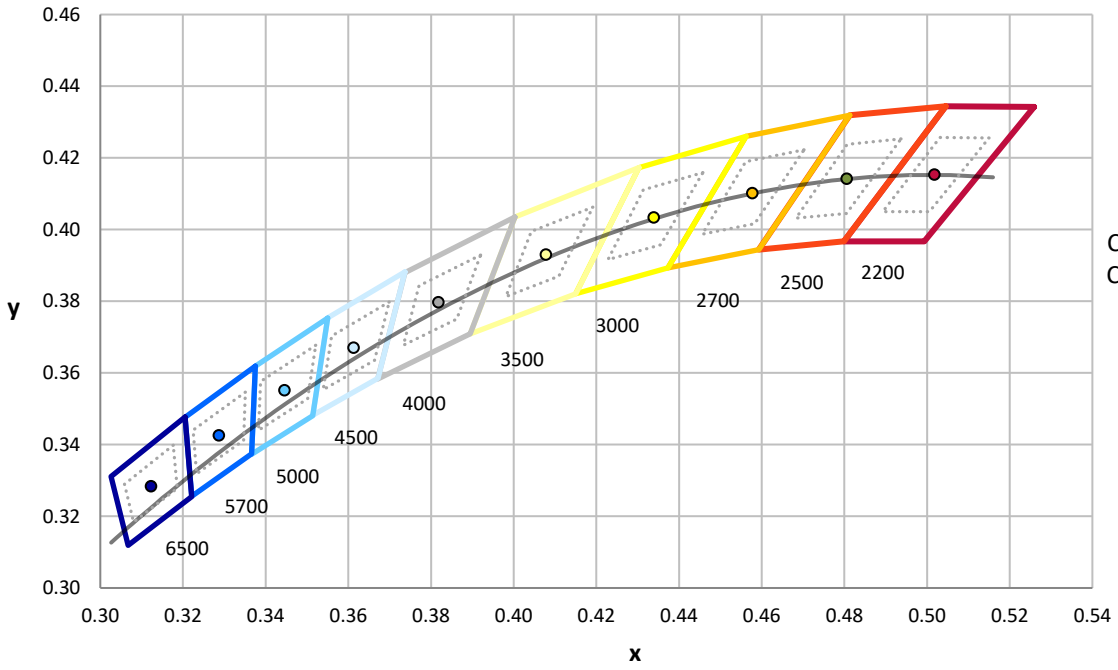
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085	10/24/2023	10/24/2024
Room Thermometer	IN0046	10/24/2023	10/24/2024

REPORT NUMBER: SP1-2407-176-1

CIE 1931 Chromaticity Diagram



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

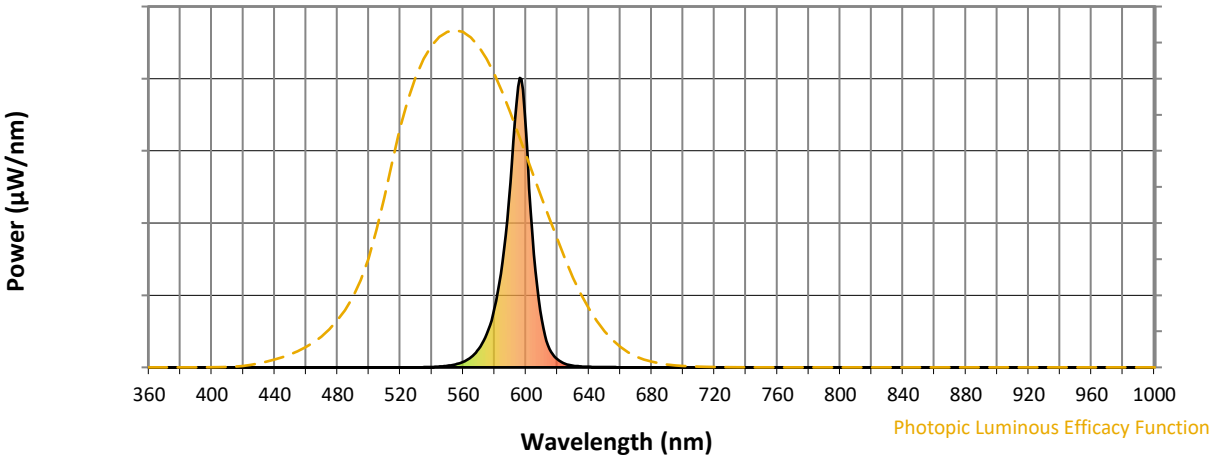


CCT = 1554K
CIE x = 0.5903
CIE y = 0.4091
Duv = 0.0111

Point lies outside the range

REPORT NUMBER: SP1-2407-176-1

Photopic Flux vs. Wavelength

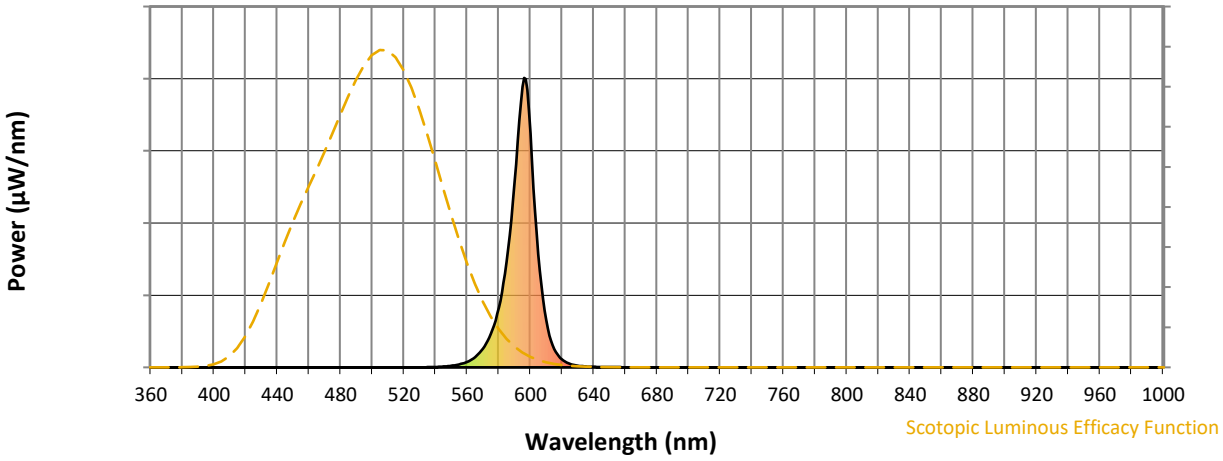


Photopic Lumens: NR

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	0	NR	620	27	NR	750	0	NR	880	0	NR
365	0	NR	495	0	NR	625	12	NR	755	0	NR	885	0	NR
370	0	NR	500	0	NR	630	6	NR	760	0	NR	890	0	NR
375	0	NR	505	0	NR	635	3	NR	765	0	NR	895	0	NR
380	0	NR	510	0	NR	640	2	NR	770	0	NR	900	0	NR
385	0	NR	515	0	NR	645	1	NR	775	0	NR	905	0	NR
390	0	NR	520	0	NR	650	1	NR	780	0	NR	910	0	NR
395	0	NR	525	0	NR	655	1	NR	785	0	NR	915	0	NR
400	0	NR	530	0	NR	660	1	NR	790	0	NR	920	0	NR
405	0	NR	535	1	NR	665	0	NR	795	0	NR	925	0	NR
410	0	NR	540	1	NR	670	0	NR	800	0	NR	930	0	NR
415	0	NR	545	3	NR	675	0	NR	805	0	NR	935	0	NR
420	0	NR	550	5	NR	680	0	NR	810	0	NR	940	0	NR
425	0	NR	555	10	NR	685	0	NR	815	0	NR	945	0	NR
430	0	NR	560	19	NR	690	0	NR	820	0	NR	950	0	NR
435	0	NR	565	35	NR	695	0	NR	825	0	NR	955	0	NR
440	0	NR	570	64	NR	700	0	NR	830	0	NR	960	0	NR
445	0	NR	575	116	NR	705	0	NR	835	0	NR	965	0	NR
450	0	NR	580	206	NR	710	0	NR	840	0	NR	970	0	NR
455	0	NR	585	364	NR	715	0	NR	845	0	NR	975	0	NR
460	0	NR	590	639	NR	720	0	NR	850	0	NR	980	0	NR
465	0	NR	595	970	NR	725	0	NR	855	0	NR	985	0	NR
470	0	NR	600	808	NR	730	0	NR	860	0	NR	990	0	NR
475	0	NR	605	391	NR	735	0	NR	865	0	NR	995	0	NR
480	0	NR	610	164	NR	740	0	NR	870	0	NR	1000	0	NR
485	0	NR	615	63	NR	745	0	NR	875	0	NR			

REPORT NUMBER: SP1-2407-176-1

Scotopic Flux vs. Wavelength

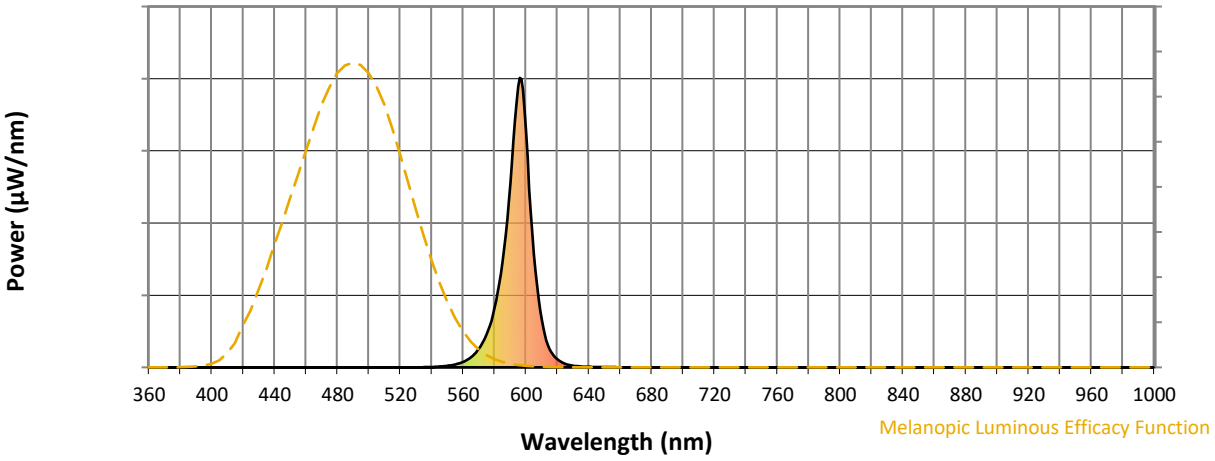


Scotopic Lumens: NR **S/P: 0.22**

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	0	NR	620	27	NR	750	0	NR	880	0	NR
365	0	NR	495	0	NR	625	12	NR	755	0	NR	885	0	NR
370	0	NR	500	0	NR	630	6	NR	760	0	NR	890	0	NR
375	0	NR	505	0	NR	635	3	NR	765	0	NR	895	0	NR
380	0	NR	510	0	NR	640	2	NR	770	0	NR	900	0	NR
385	0	NR	515	0	NR	645	1	NR	775	0	NR	905	0	NR
390	0	NR	520	0	NR	650	1	NR	780	0	NR	910	0	NR
395	0	NR	525	0	NR	655	1	NR	785	0	NR	915	0	NR
400	0	NR	530	0	NR	660	1	NR	790	0	NR	920	0	NR
405	0	NR	535	1	NR	665	0	NR	795	0	NR	925	0	NR
410	0	NR	540	1	NR	670	0	NR	800	0	NR	930	0	NR
415	0	NR	545	3	NR	675	0	NR	805	0	NR	935	0	NR
420	0	NR	550	5	NR	680	0	NR	810	0	NR	940	0	NR
425	0	NR	555	10	NR	685	0	NR	815	0	NR	945	0	NR
430	0	NR	560	19	NR	690	0	NR	820	0	NR	950	0	NR
435	0	NR	565	35	NR	695	0	NR	825	0	NR	955	0	NR
440	0	NR	570	64	NR	700	0	NR	830	0	NR	960	0	NR
445	0	NR	575	116	NR	705	0	NR	835	0	NR	965	0	NR
450	0	NR	580	206	NR	710	0	NR	840	0	NR	970	0	NR
455	0	NR	585	364	NR	715	0	NR	845	0	NR	975	0	NR
460	0	NR	590	639	NR	720	0	NR	850	0	NR	980	0	NR
465	0	NR	595	970	NR	725	0	NR	855	0	NR	985	0	NR
470	0	NR	600	808	NR	730	0	NR	860	0	NR	990	0	NR
475	0	NR	605	391	NR	735	0	NR	865	0	NR	995	0	NR
480	0	NR	610	164	NR	740	0	NR	870	0	NR	1000	0	NR
485	0	NR	615	63	NR	745	0	NR	875	0	NR			

REPORT NUMBER: SP1-2407-176-1

Melanopic Flux vs. Wavelength



Melanopic Lumens: NR **M/P: 0.12**

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	0	NR	620	27	NR	750	0	NR	880	0	NR
365	0	NR	495	0	NR	625	12	NR	755	0	NR	885	0	NR
370	0	NR	500	0	NR	630	6	NR	760	0	NR	890	0	NR
375	0	NR	505	0	NR	635	3	NR	765	0	NR	895	0	NR
380	0	NR	510	0	NR	640	2	NR	770	0	NR	900	0	NR
385	0	NR	515	0	NR	645	1	NR	775	0	NR	905	0	NR
390	0	NR	520	0	NR	650	1	NR	780	0	NR	910	0	NR
395	0	NR	525	0	NR	655	1	NR	785	0	NR	915	0	NR
400	0	NR	530	0	NR	660	1	NR	790	0	NR	920	0	NR
405	0	NR	535	1	NR	665	0	NR	795	0	NR	925	0	NR
410	0	NR	540	1	NR	670	0	NR	800	0	NR	930	0	NR
415	0	NR	545	3	NR	675	0	NR	805	0	NR	935	0	NR
420	0	NR	550	5	NR	680	0	NR	810	0	NR	940	0	NR
425	0	NR	555	10	NR	685	0	NR	815	0	NR	945	0	NR
430	0	NR	560	19	NR	690	0	NR	820	0	NR	950	0	NR
435	0	NR	565	35	NR	695	0	NR	825	0	NR	955	0	NR
440	0	NR	570	64	NR	700	0	NR	830	0	NR	960	0	NR
445	0	NR	575	116	NR	705	0	NR	835	0	NR	965	0	NR
450	0	NR	580	206	NR	710	0	NR	840	0	NR	970	0	NR
455	0	NR	585	364	NR	715	0	NR	845	0	NR	975	0	NR
460	0	NR	590	639	NR	720	0	NR	850	0	NR	980	0	NR
465	0	NR	595	970	NR	725	0	NR	855	0	NR	985	0	NR
470	0	NR	600	808	NR	730	0	NR	860	0	NR	990	0	NR
475	0	NR	605	391	NR	735	0	NR	865	0	NR	995	0	NR
480	0	NR	610	164	NR	740	0	NR	870	0	NR	1000	0	NR
485	0	NR	615	63	NR	745	0	NR	875	0	NR			

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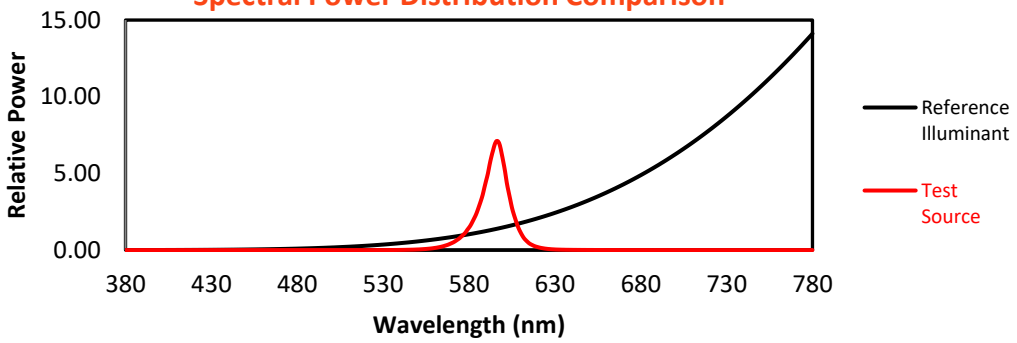
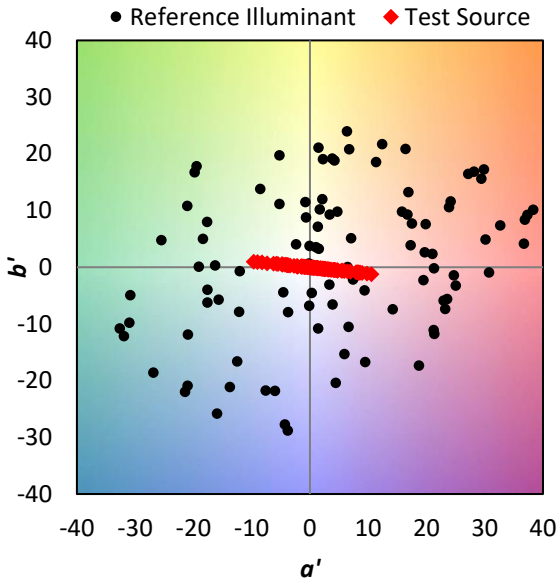
Summary

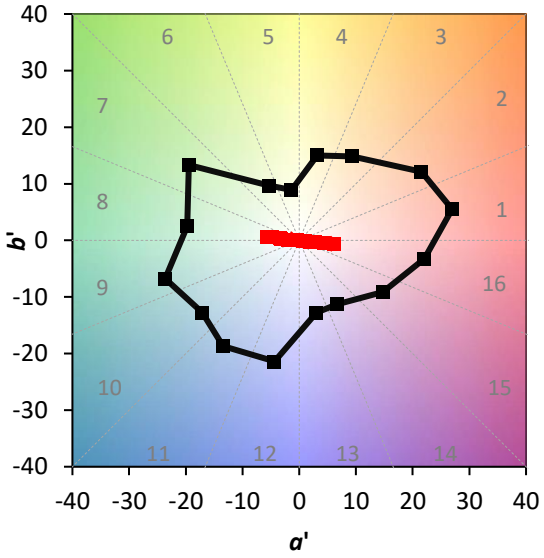
R_f = 1.1
R_g = 0
CIE R_a = -22.5
R_9 = -390.1

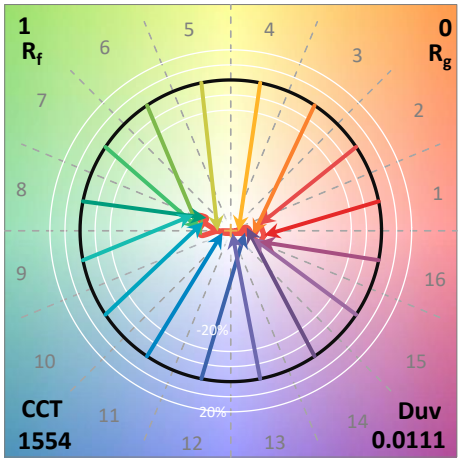
Spectral Power Distribution Comparison

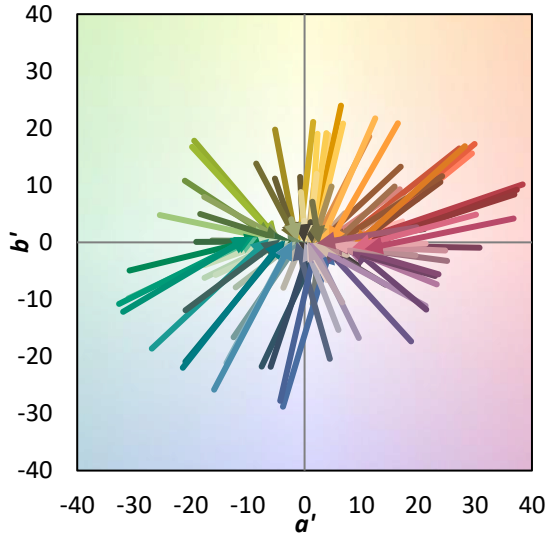


Color Vector Graphics









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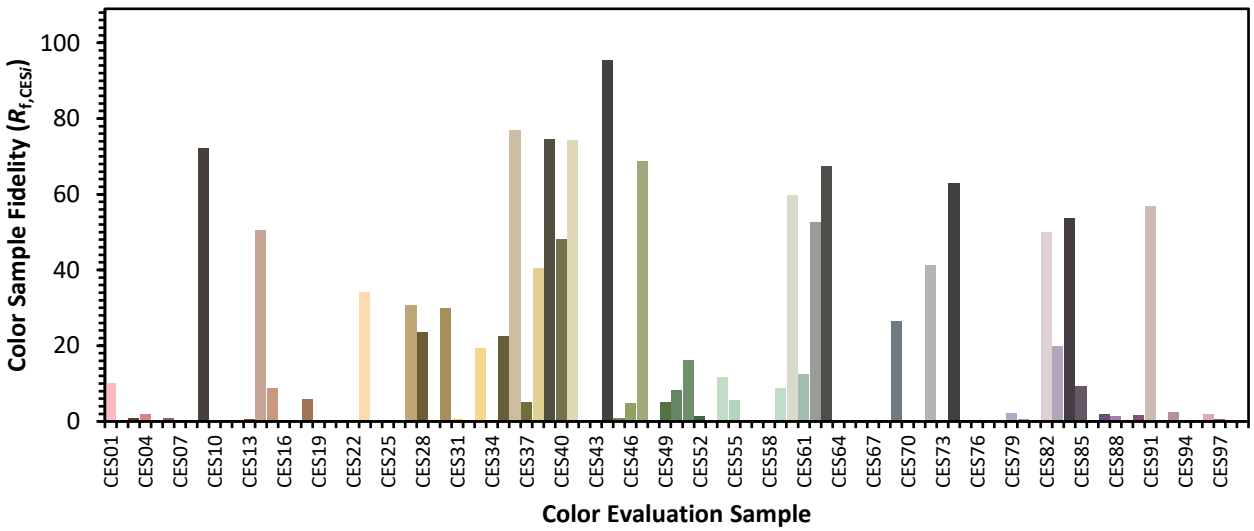
Individual Sample Fidelity Index ($R_{f,i}$)

CES01 = 90	CES26 = 0	CES51 = 16	CES76 = 0
CES02 = 69	CES27 = 31	CES52 = 2	CES77 = 0
CES03 = 31	CES28 = 24	CES53 = 0	CES78 = 0
CES04 = 77	CES29 = 0	CES54 = 12	CES79 = 2
CES05 = 52	CES30 = 30	CES55 = 6	CES80 = 1
CES06 = 56	CES31 = 1	CES56 = 0	CES81 = 0
CES07 = 41	CES32 = 0	CES57 = 0	CES82 = 50
CES08 = 38	CES33 = 19	CES58 = 0	CES83 = 20
CES09 = 29	CES34 = 0	CES59 = 9	CES84 = 54
CES10 = 87	CES35 = 22	CES60 = 60	CES85 = 9
CES11 = 70	CES36 = 77	CES61 = 12	CES86 = 0
CES12 = 75	CES37 = 5	CES62 = 53	CES87 = 2
CES13 = 47	CES38 = 40	CES63 = 67	CES88 = 1
CES14 = 76	CES39 = 75	CES64 = 0	CES89 = 0
CES15 = 74	CES40 = 48	CES65 = 0	CES90 = 2
CES16 = 49	CES41 = 74	CES66 = 0	CES91 = 57
CES17 = 56	CES42 = 0	CES67 = 0	CES92 = 0
CES18 = 59	CES43 = 0	CES68 = 0	CES93 = 2
CES19 = 80	CES44 = 95	CES69 = 26	CES94 = 0
CES20 = 71	CES45 = 1	CES70 = 0	CES95 = 0
CES21 = 94	CES46 = 5	CES71 = 0	CES96 = 2
CES22 = 87	CES47 = 69	CES72 = 41	CES97 = 1
CES23 = 94	CES48 = 0	CES73 = 0	CES98 = 0
CES24 = 95	CES49 = 5	CES74 = 63	CES99 = 0
CES25 = 79	CES50 = 8	CES75 = 0	



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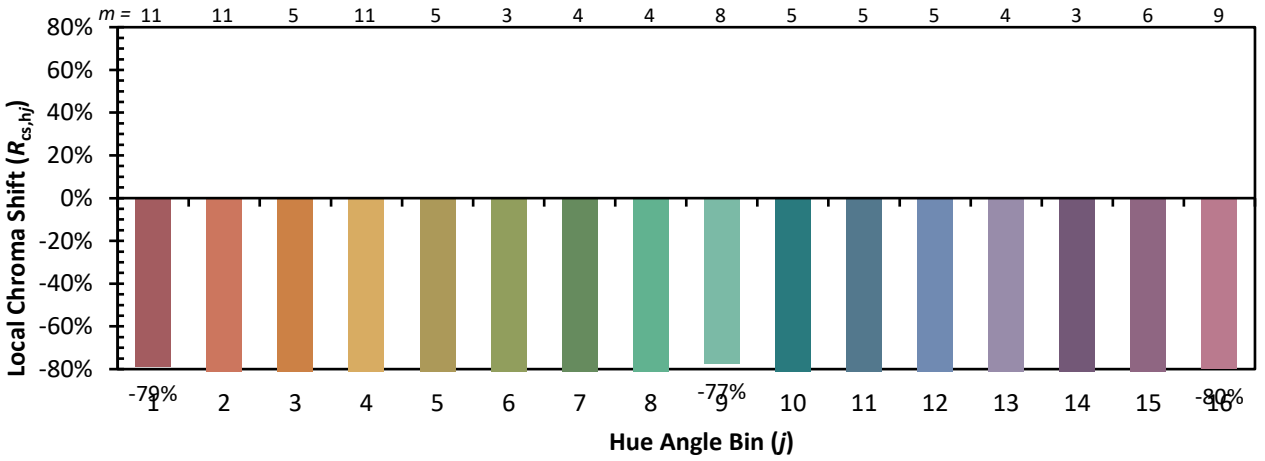
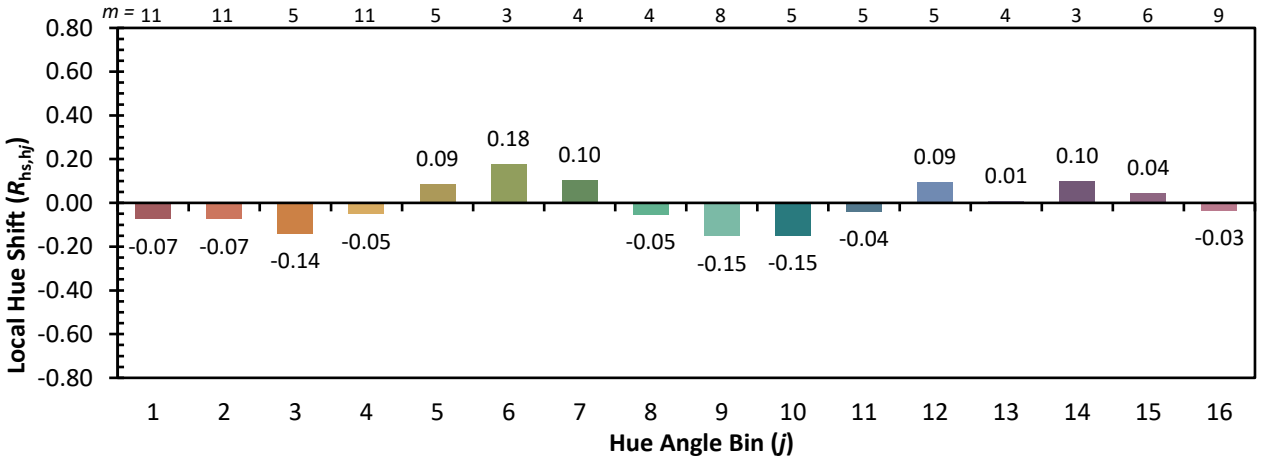
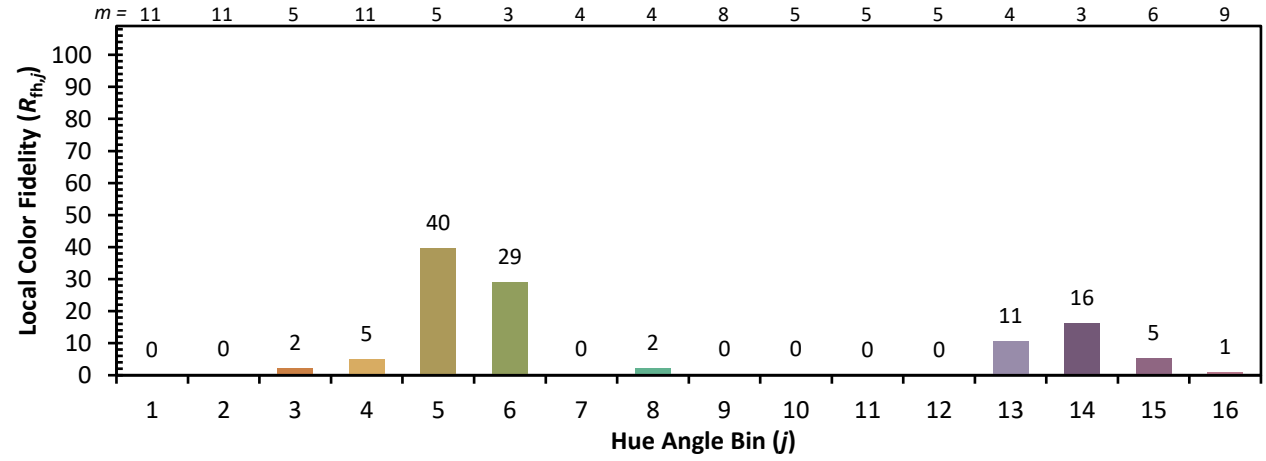
Color Rendition by Hue-Angle Bin







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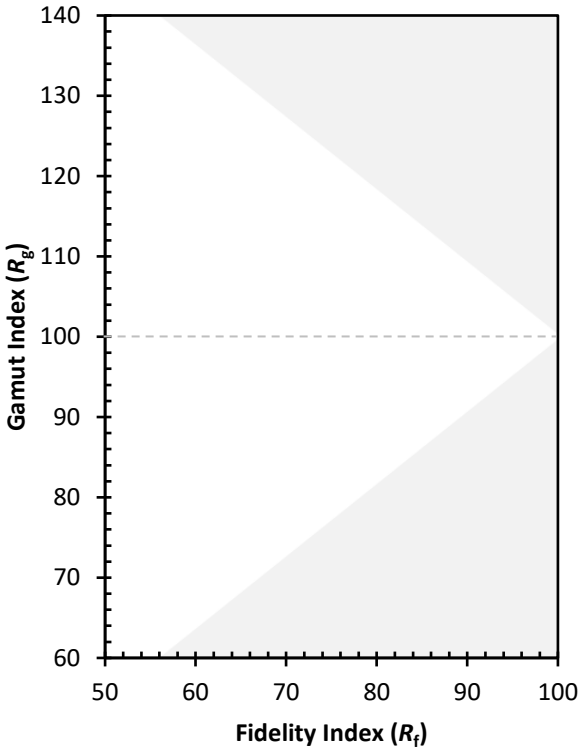
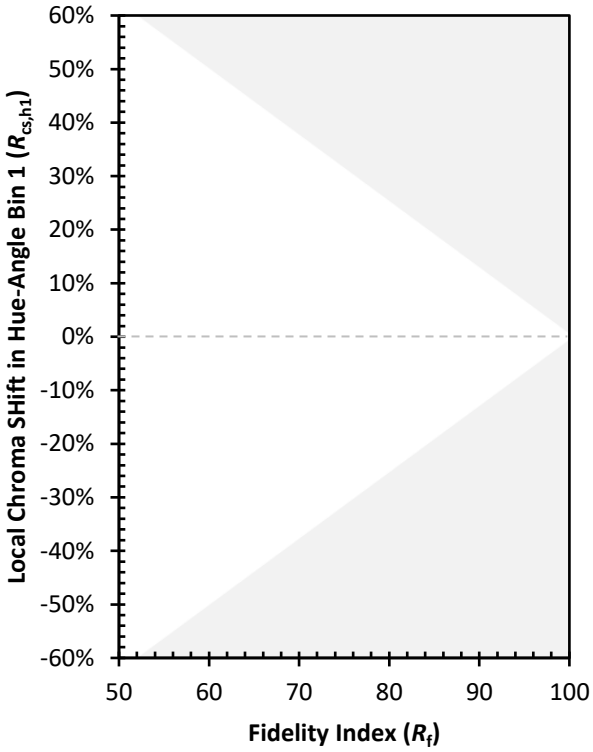
Measure Comparisons





(END OF REPORT)