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: P880506

Luminaire Tested: **MEM2-HTN-VA-60-AMB-U-CQ**

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:	P880506
Test Lab:	INNOVATION CENTER(G3)
Issue Date:	10/02/2024
Manufacturer:	COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line:	STREETWORKS
Catalog Number:	MEM2-HTN-VA-60-AMB-U-CQ
Description:	EPIC MODERN TALL HOUSING 60W 0CRI 1554K VISUAL COMFORT FIXTURE w/ TYPE V CONCENTRATED DISTRIBUTION OPTIC
Light Source:	(1) 1554K CCT, 0 CRI LEDS
Ballast/Driver:	ELECTRONIC DRIVER

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	1860.1 lumens
Efficiency:	N/A
Efficacy:	29.5 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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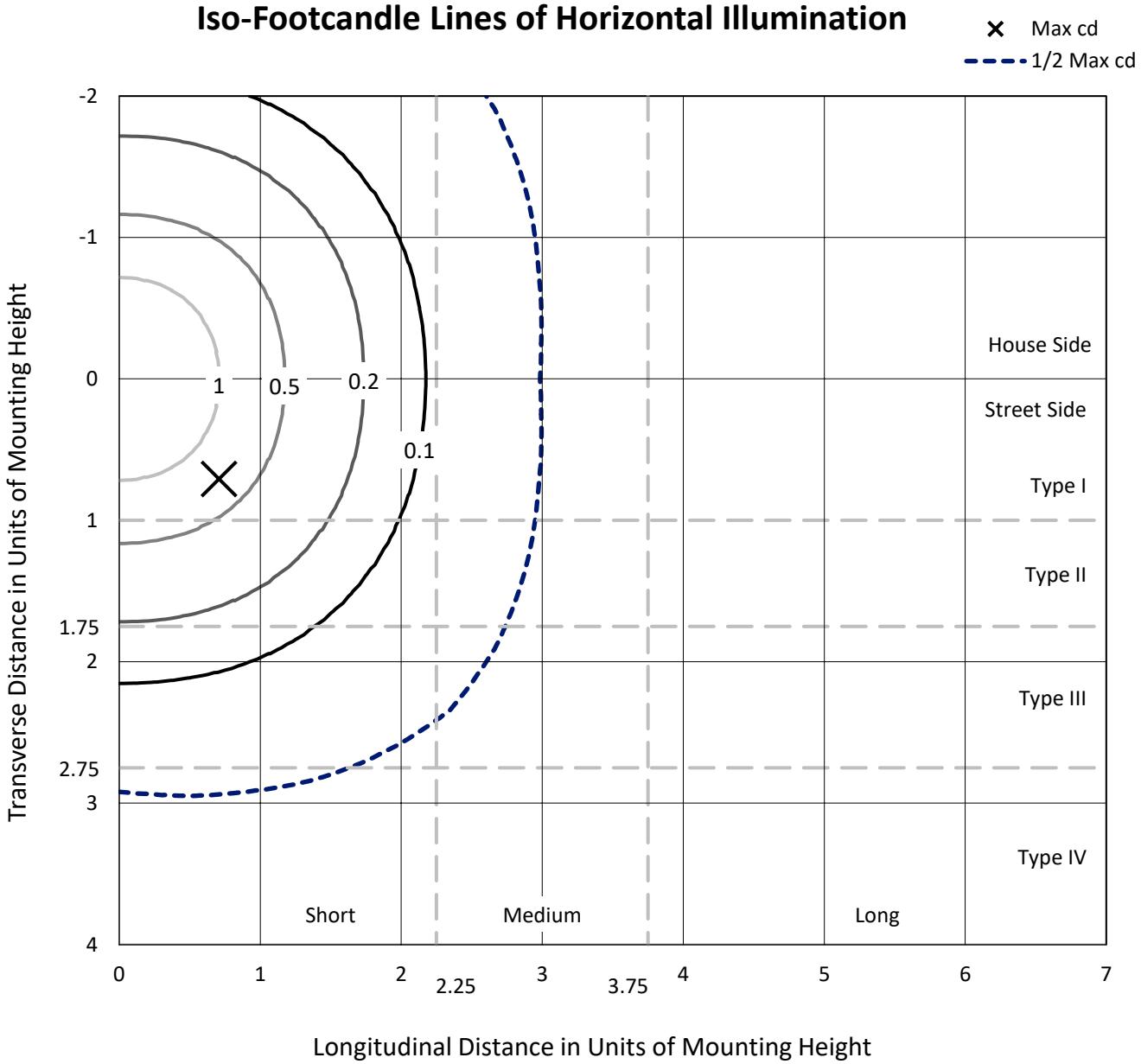
Scaled Data Report

REPORT NUMBER: P880506
CATALOG NUMBER: MEM2-HTN-VA-60-AMB-U-CQ

Iso-Footcandle Lines of Horizontal Illumination



Based on 15 foot mounting height. Maximum calculated value = 1.9 fc
Type V - Short - N/A

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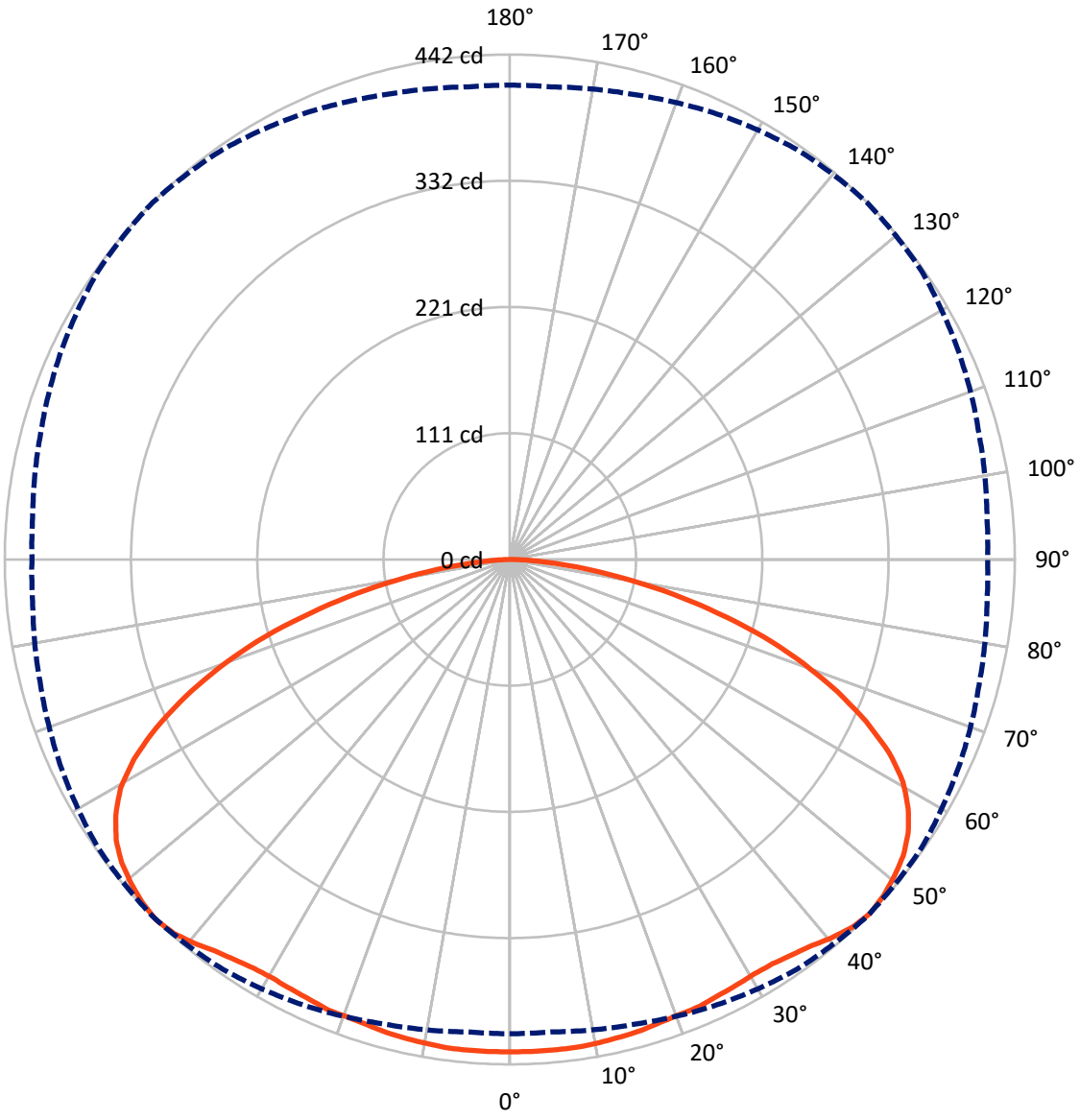
Luminous Intensity Polar Plot



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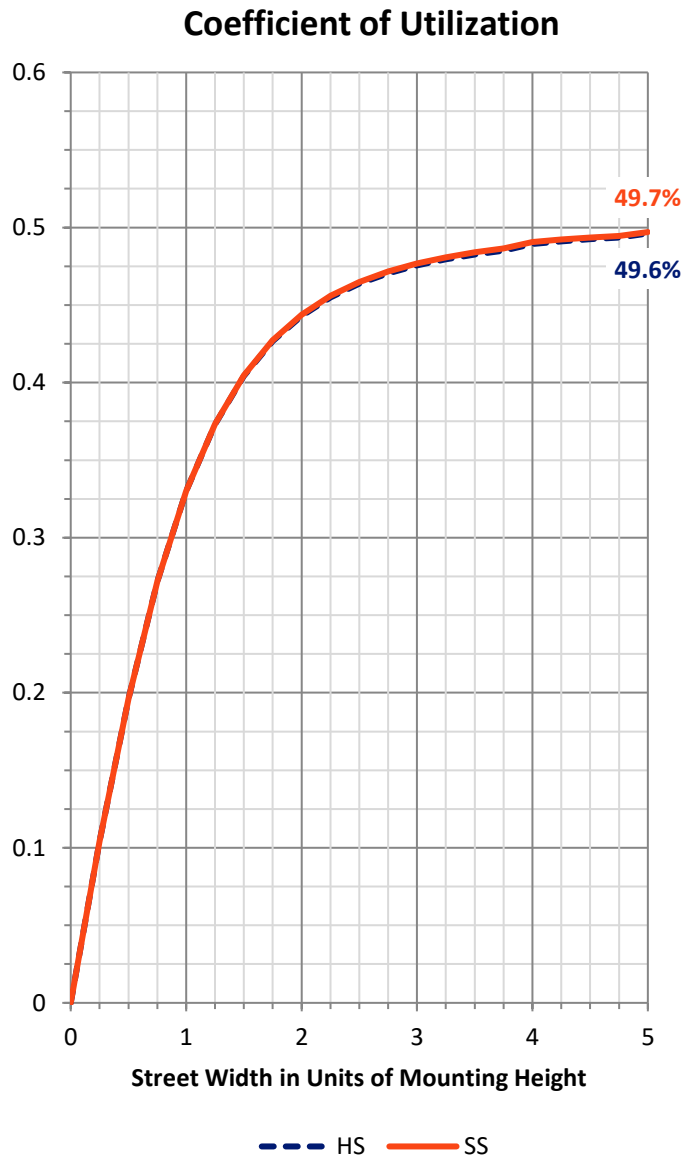
REPORT NUMBER: P880506
CATALOG NUMBER: MEM2-HTN-VA-60-AMB-U-CQ

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	930.0	0.0	930.0
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	930.0	0.0	930.0
	% Fixture	50.0	0.0	50.0
Total	Lumens	1860.1	0.0	1860.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	41.1	2.2
10°-20°	121.1	6.5
20°-30°	195.5	10.5
30°-40°	265.0	14.2
40°-50°	331.0	17.8
50°-60°	361.3	19.4
60°-70°	318.7	17.1
70°-80°	185.6	10.0
80°-90°	40.7	2.2
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°	1860.1	100.0
0°-180°	1860.1	100.0



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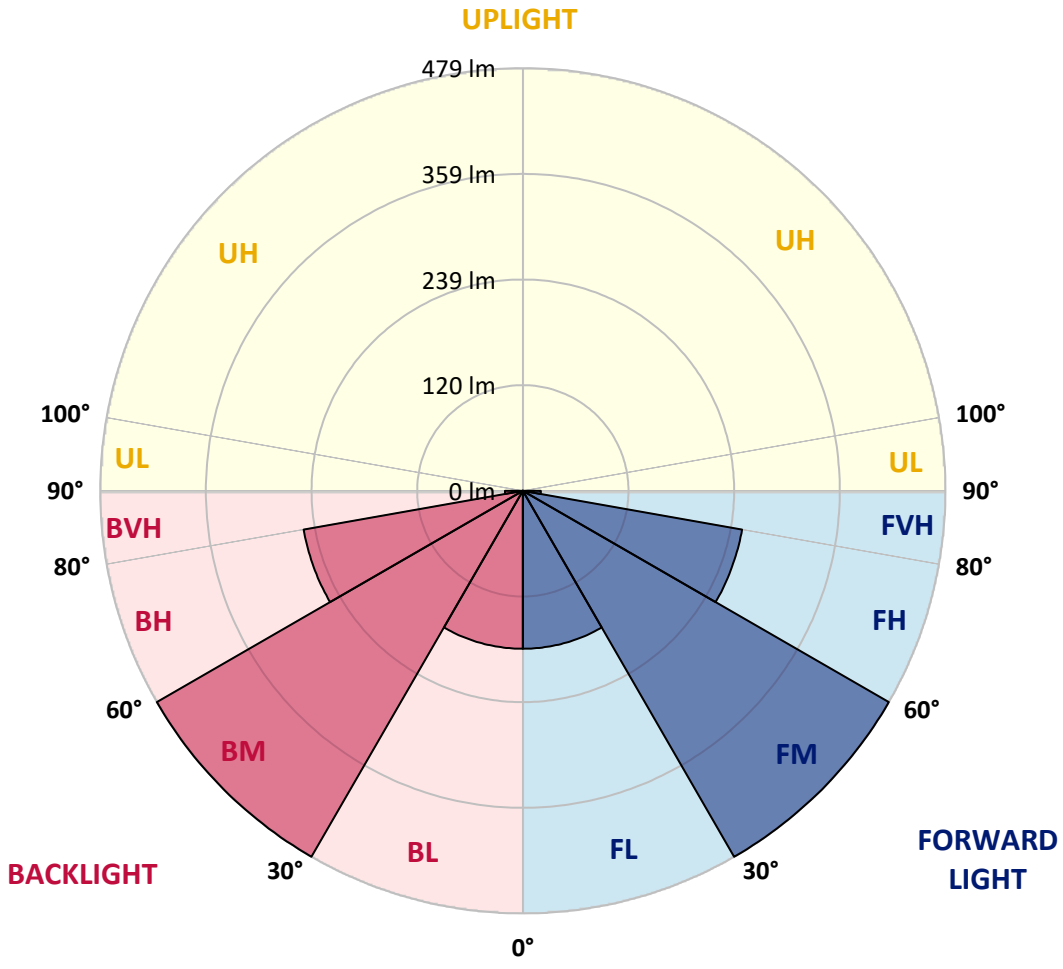
REPORT NUMBER: P880506
CATALOG NUMBER: MEM2-HTN-VA-60-AMB-U-CQ

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	178.9	9.6			
FM	(30°-60°)	478.7	25.7			
FH	(60°-80°)	252.2	13.6			G0/660
FVH	(80°-90°)	20.3	1.1			G1/100
BL	(0°-30°)	178.9	9.6	B1/500		
BM	(30°-60°)	478.7	25.7	B1/1000		
BH	(60°-80°)	252.2	13.6	B1/500		G0/660
BVH	(80°-90°)	20.3	1.1			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: P880506
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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	431.1	431.1	431.1	431.1	431.1	*431.1*	431.1	431.1	431.1	431.1	431.1
2.5°	431.1	431.1	431.1	431.1	431.1	*431.1*	431.1	431.1	431.1	431.1	431.1
5°	431.1	431.1	431.1	431.1	431.1	*431.1*	431.1	431.1	431.1	431.1	431.1
7.5°	431.1	431.1	431.1	431.1	431.1	*431.1*	430.1	431.1	431.1	431.1	430.1
10°	430.1	430.1	430.1	430.1	430.1	*430.1*	430.1	430.1	430.1	430.1	430.1
12.5°	429.1	429.1	429.1	429.1	429.1	*429.1*	429.1	429.1	429.1	428.1	429.1
15°	428.1	428.1	428.1	428.1	428.1	*428.1*	428.1	428.1	427.1	427.1	427.1
17.5°	426.1	426.1	426.1	426.1	426.1	*426.1*	426.1	426.1	426.1	425.1	425.1
20°	425.1	425.1	425.1	425.1	426.1	*425.1*	425.1	425.1	424.1	424.1	424.1
22.5°	424.1	424.1	425.1	425.1	425.1	*425.1*	425.1	424.1	423.1	423.1	423.1
25°	422.1	422.1	422.1	423.1	423.1	*423.1*	423.1	422.1	421.2	421.2	420.2
27.5°	420.2	420.2	421.2	422.1	422.1	*422.1*	421.2	420.2	419.2	418.2	418.2
30°	418.2	419.2	420.2	421.2	421.2	*421.2*	421.2	419.2	417.2	416.2	416.2
32.5°	418.2	418.2	419.2	421.2	422.1	*422.1*	421.2	419.2	416.2	414.2	414.2
35°	418.2	418.2	420.2	423.1	425.1	*425.1*	423.1	420.2	417.2	414.2	414.2
37.5°	420.2	420.2	423.1	426.1	429.1	*429.1*	427.1	423.1	418.2	415.2	415.2
40°	421.2	421.2	425.1	430.1	434.0	*435.0*	433.0	427.1	422.1	418.2	417.2
42.5°	418.2	419.2	424.1	431.1	437.0	*440.0*	437.0	432.1	424.1	419.2	419.2
45°	*415.2*	*415.2*	*421.2*	*430.1*	*438.0*	*442.0*	*440.0*	*433.0*	*425.1*	*419.2*	*418.2*
47.5°	409.3	410.3	417.2	427.1	435.0	*440.0*	439.0	432.1	423.1	417.2	416.2
50°	403.3	404.3	411.2	422.1	432.1	*436.0*	435.0	428.1	418.2	411.2	410.3
52.5°	394.4	395.4	403.3	415.2	426.1	*431.1*	429.1	422.1	411.2	403.3	403.3
55°	383.5	384.5	393.4	406.3	418.2	*423.1*	421.2	412.2	401.3	393.4	392.4
57.5°	368.6	369.6	379.5	393.4	406.3	*411.2*	409.3	400.3	388.5	379.5	378.5
60°	349.8	351.8	361.7	375.6	388.5	*395.4*	392.4	382.5	369.6	361.7	361.7
62.5°	329.0	330.0	338.9	353.8	366.7	*372.6*	369.6	359.7	347.8	338.9	338.9
65°	301.3	302.2	312.2	327.0	337.9	*342.9*	340.9	333.0	320.1	311.2	311.2
67.5°	270.5	271.5	280.4	294.3	305.2	*309.2*	307.2	298.3	287.4	280.4	280.4
70°	235.8	237.8	248.7	256.7	268.6	*272.5*	270.5	262.6	251.7	244.8	243.8
72.5°	200.2	203.1	208.1	218.0	225.9	*232.9*	228.9	221.0	212.1	206.1	204.1
75°	162.5	162.5	168.5	176.4	183.3	*188.3*	186.3	178.4	171.4	166.5	165.5
77.5°	123.9	123.9	129.8	136.8	141.7	*145.7*	142.7	136.8	129.8	128.8	125.9
80°	88.2	87.2	92.2	97.1	102.1	*102.1*	100.1	97.1	93.2	90.2	89.2
82.5°	54.5	56.5	58.5	61.4	64.4	*65.4*	62.4	61.4	58.5	56.5	56.5
85°	27.7	28.7	28.7	31.7	32.7	*32.7*	32.7	30.7	29.7	29.7	27.7
87.5°	8.9	9.9	9.9	9.9	10.9	*11.9*	11.9	10.9	9.9	9.9	9.9
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

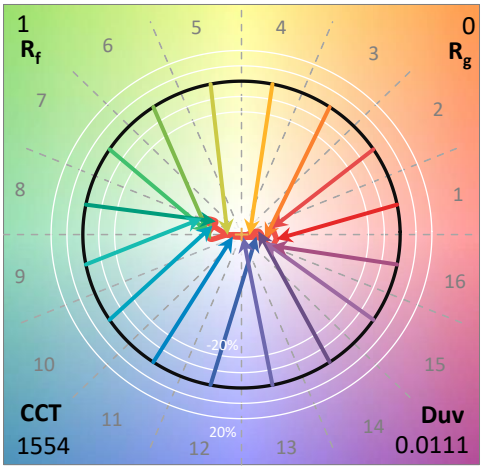
Test Information

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

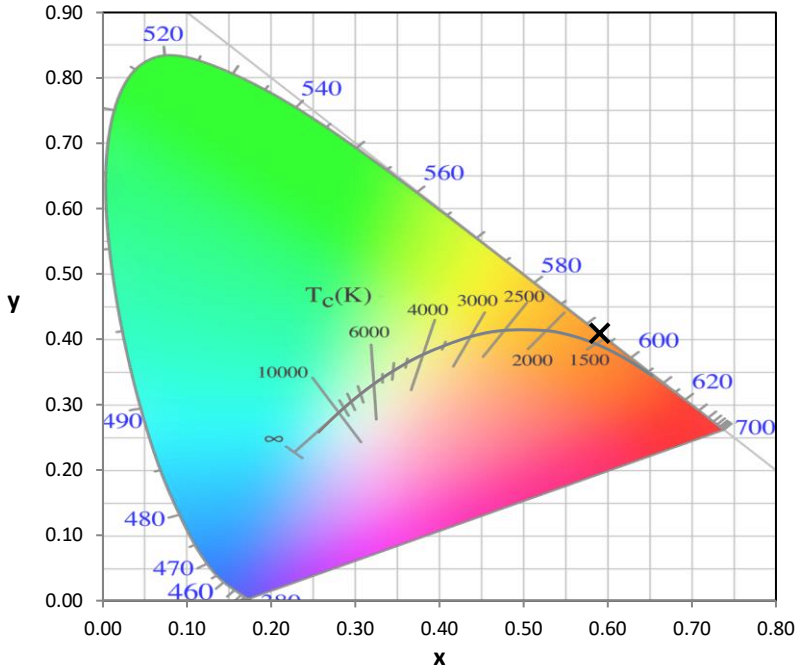
Stabilization Time:	98M
Operation Time:	2H 38M
Sphere Temperature (°C):	25.2

REPORT NUMBER: SP1-2407-176-1

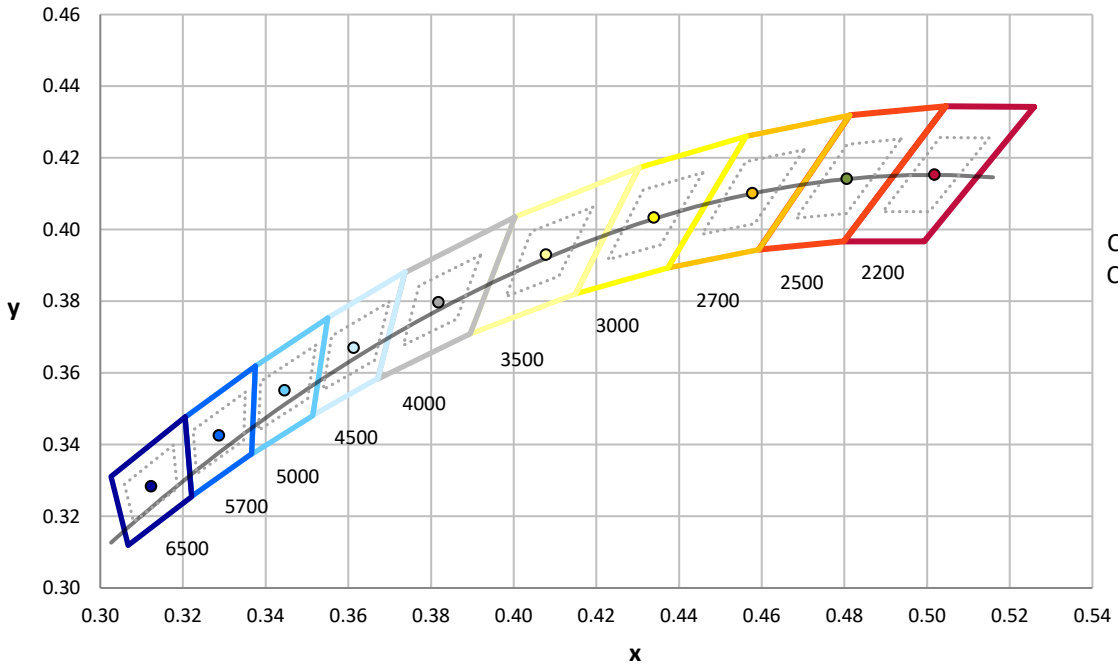
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

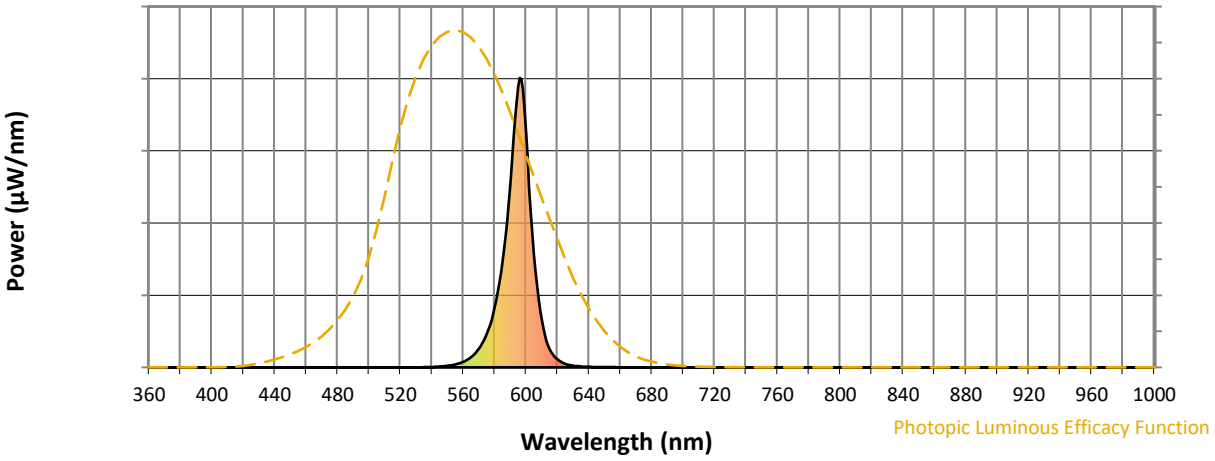


CCT = 1554K
CIE x = 0.5903
CIE y = 0.4091
Duv = 0.0111

Point lies outside the range

REPORT NUMBER: SP1-2407-176-1

Photopic Flux vs. Wavelength

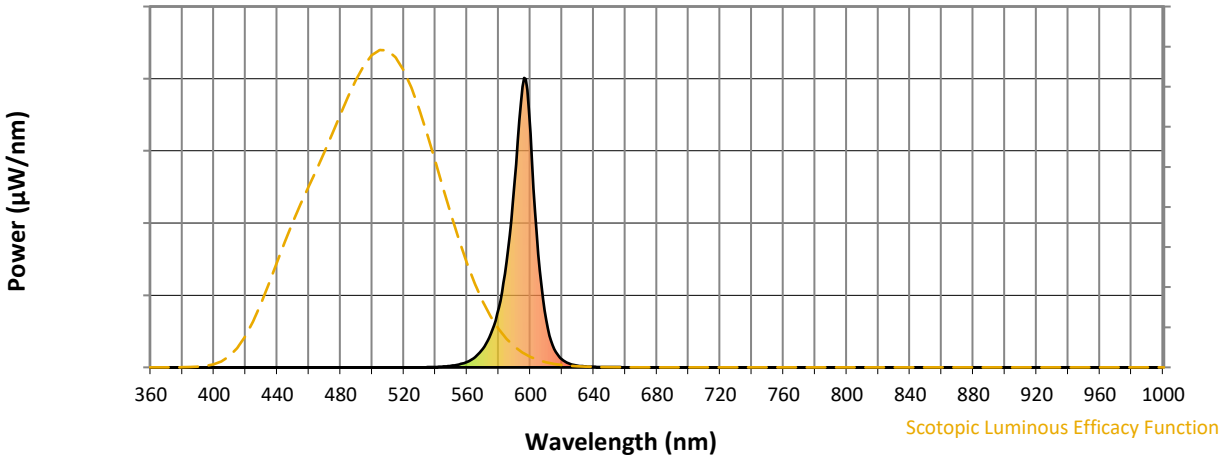


Photopic Lumens: NR

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

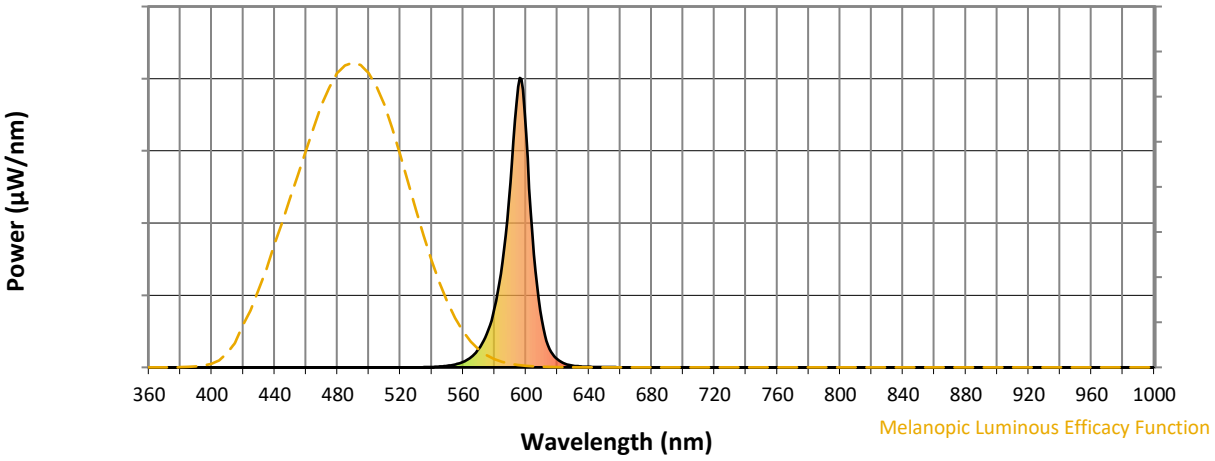


Scotopic Lumens: NR **S/P: 0.22**

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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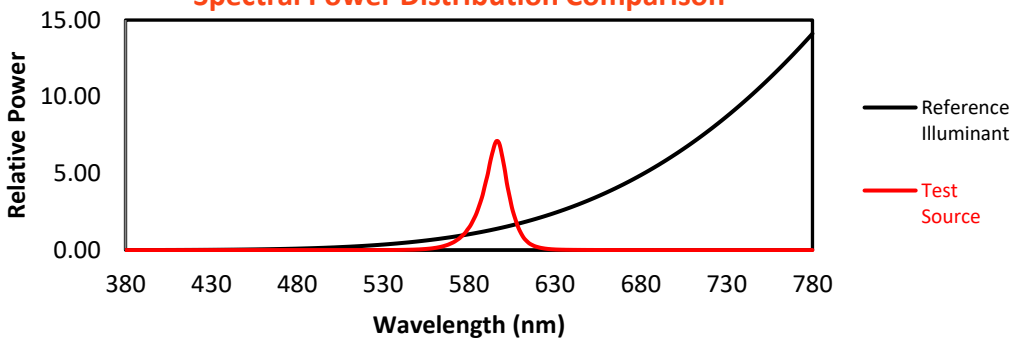
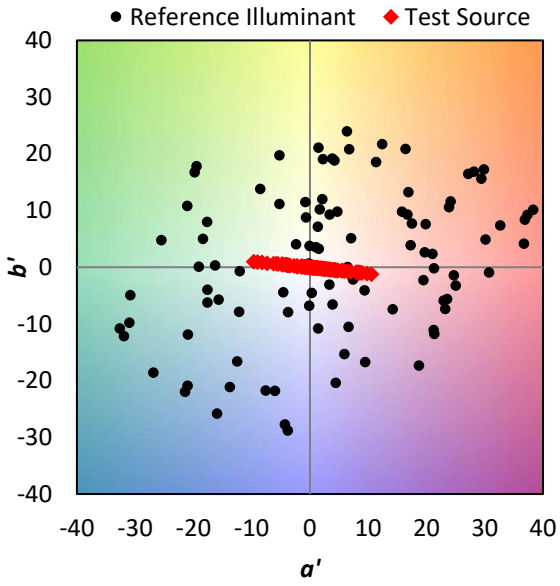
Summary

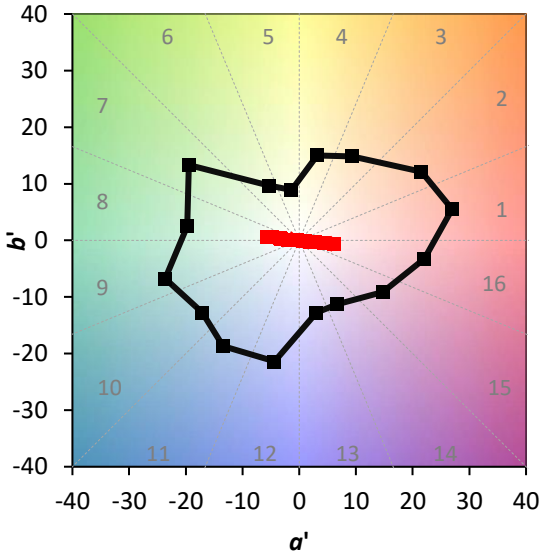
R_f = 1.1
R_g = 0
CIE R_a = -22.5
R_9 = -390.1

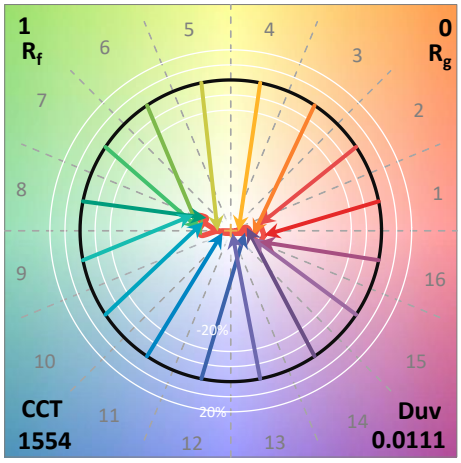
Spectral Power Distribution Comparison

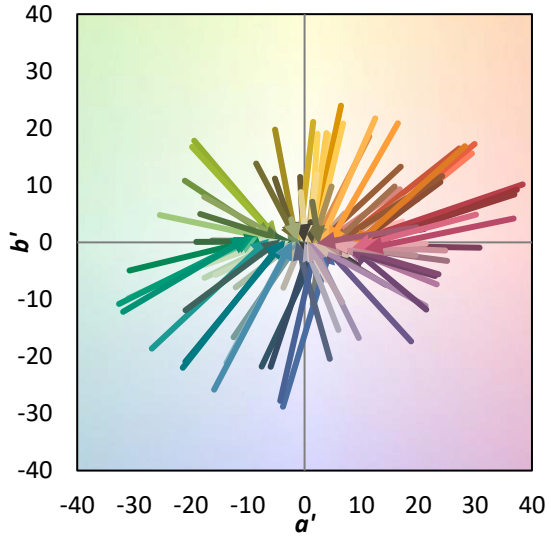


Color Vector Graphics









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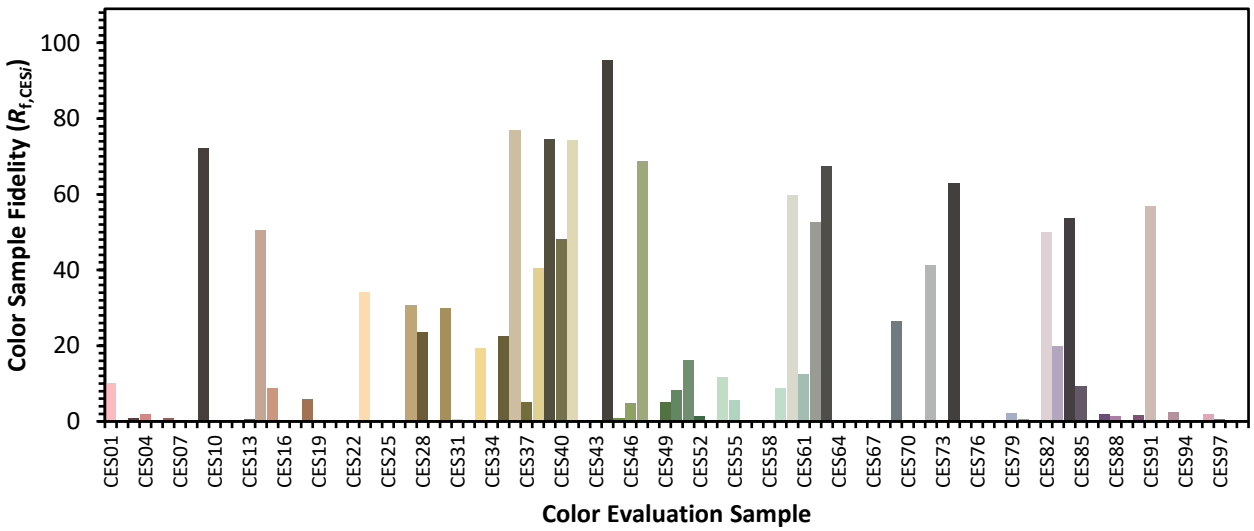
Individual Sample Fidelity Index ($R_{f,i}$)

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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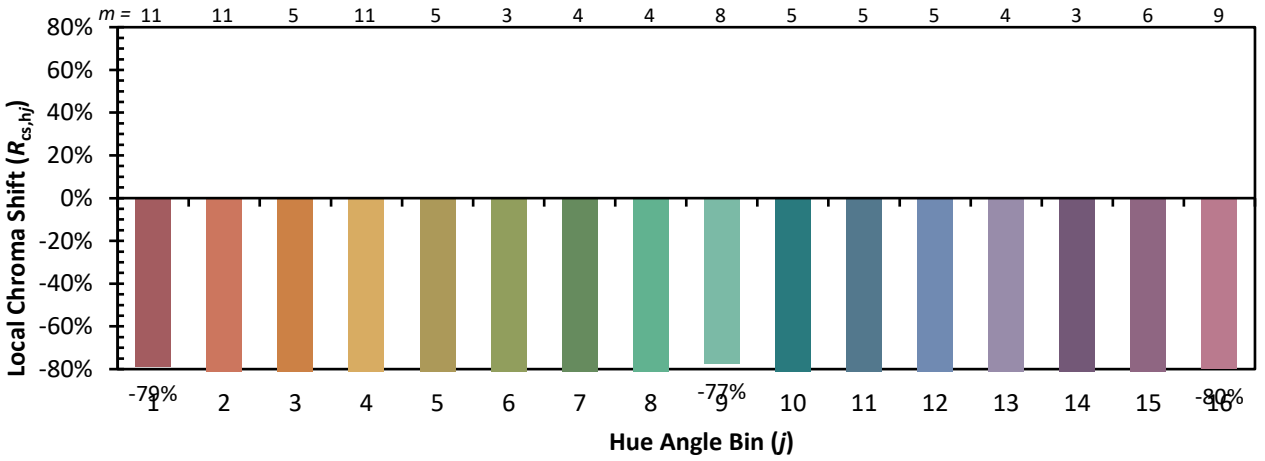
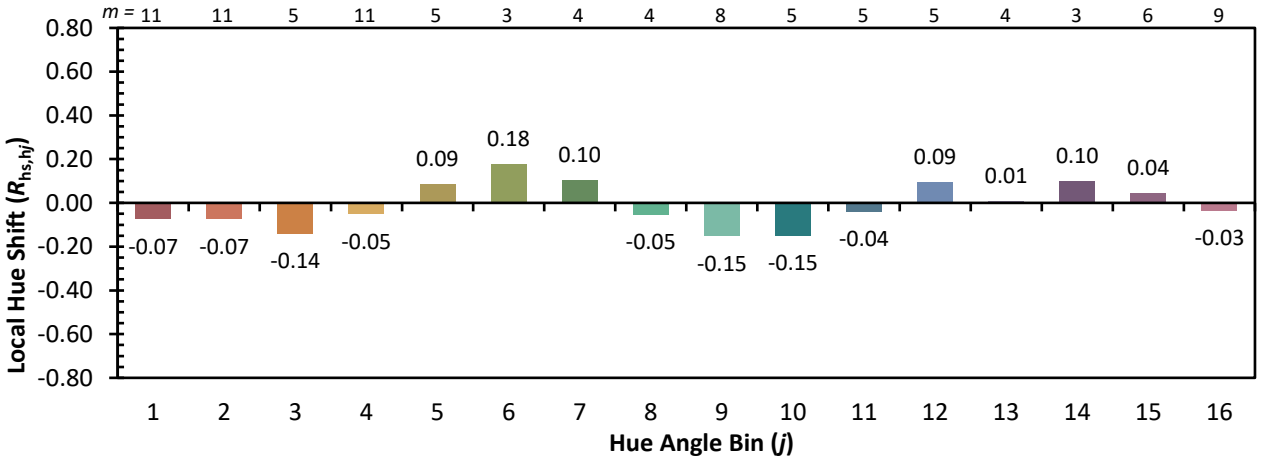
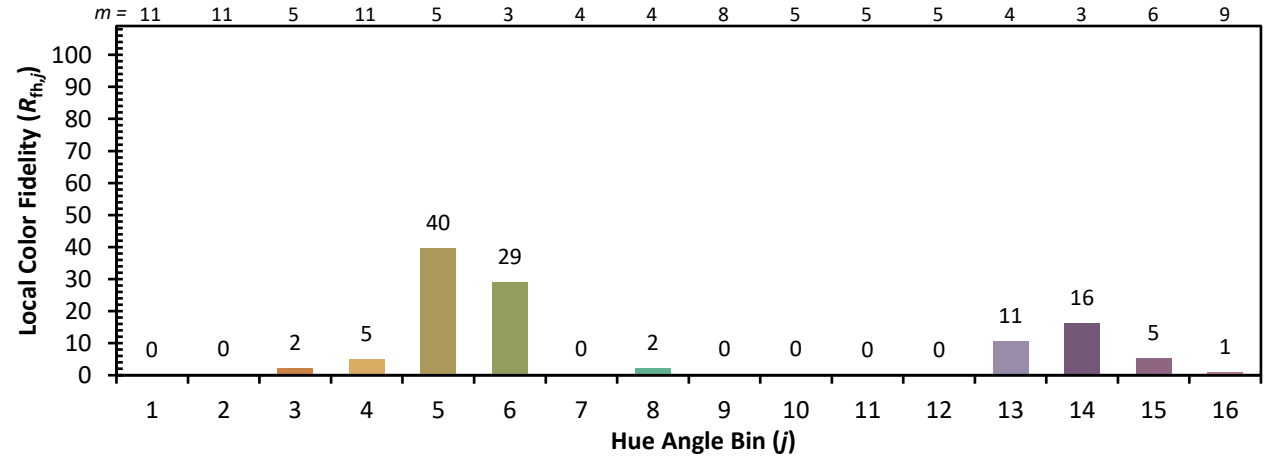
Color Rendition by Hue-Angle Bin







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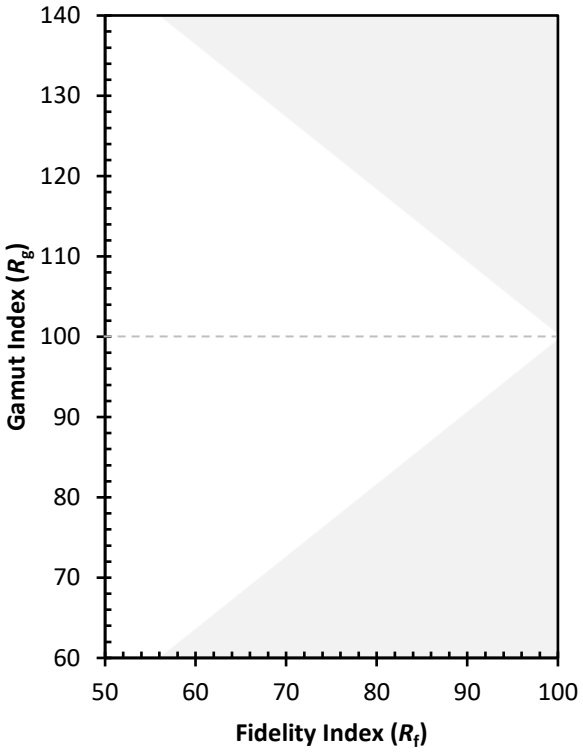
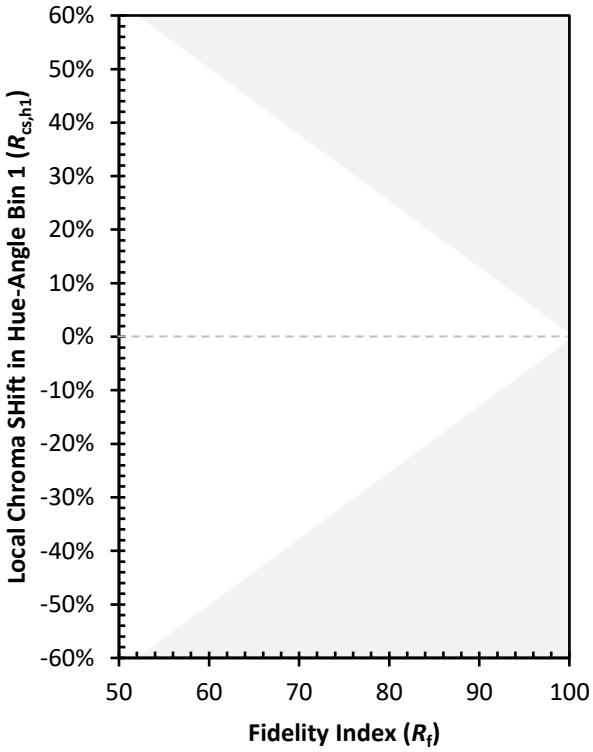
Measure Comparisons





(END OF REPORT)