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: P880112

Luminaire Tested: **MEM2-HSN-VA-30-730-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:	P880112
Test Lab:	INNOVATION CENTER(G3)
Issue Date:	10/01/2024
Manufacturer:	COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line:	STREETWORKS
Catalog Number:	MEM2-HSN-VA-30-730-U-CQ
Description:	EPIC MODERN SHORT HOUSING 30W 70CRI 3000K VISUAL COMFORT FIXTURE w/ TYPE V CONCENTRATED DISTRIBUTION OPTIC
Light Source:	(1) 3000K CCT, 70 CRI LEDS
Ballast/Driver:	ELECTRONIC DRIVER

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	2255.3 lumens
Efficiency:	N/A
Efficacy:	80.5 lumens/watt
Luminous Opening:	Circular (Dia: 1.12' x H: 0')
IES Classification:	Type V - Short
BUG Rating:	B1 - U0 - G1

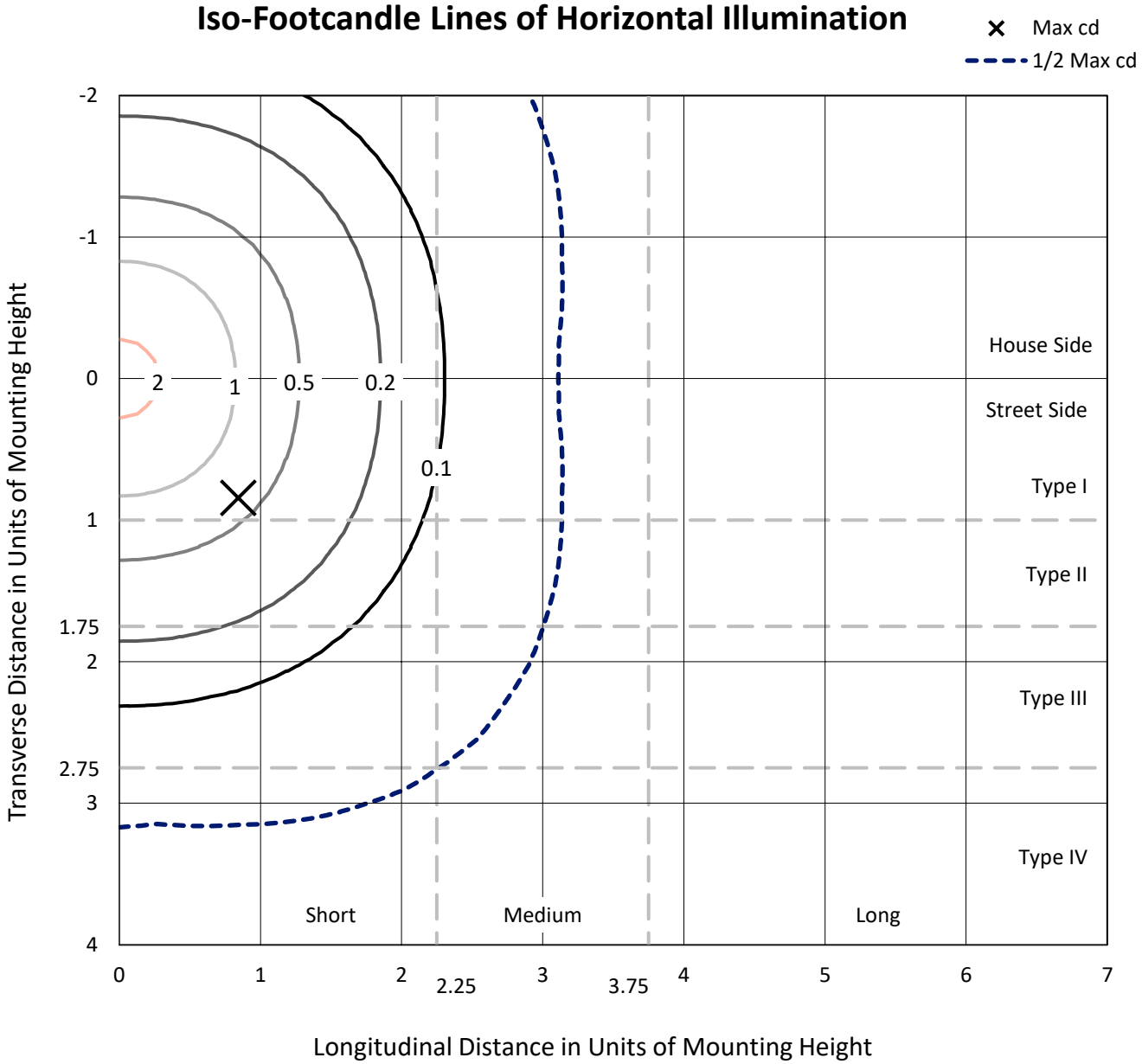
Input Watts (W):	28
Input Voltage (V):	120
Input Current (Ain):	NR
Voltage Rise (V):	NR
Power Factor:	0.99
Total Harmonic Distortion (THDi):	16%
Frequency (hertz):	60
Stabilization Time:	NR
Operation Time:	NR
Ambient Temperature (°C):	NR
Test Distance:	24 FT

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

Scaled Data Report

REPORT NUMBER: P880112
CATALOG NUMBER: MEM2-HSN-VA-30-730-U-CQ

Iso-Footcandle Lines of Horizontal Illumination



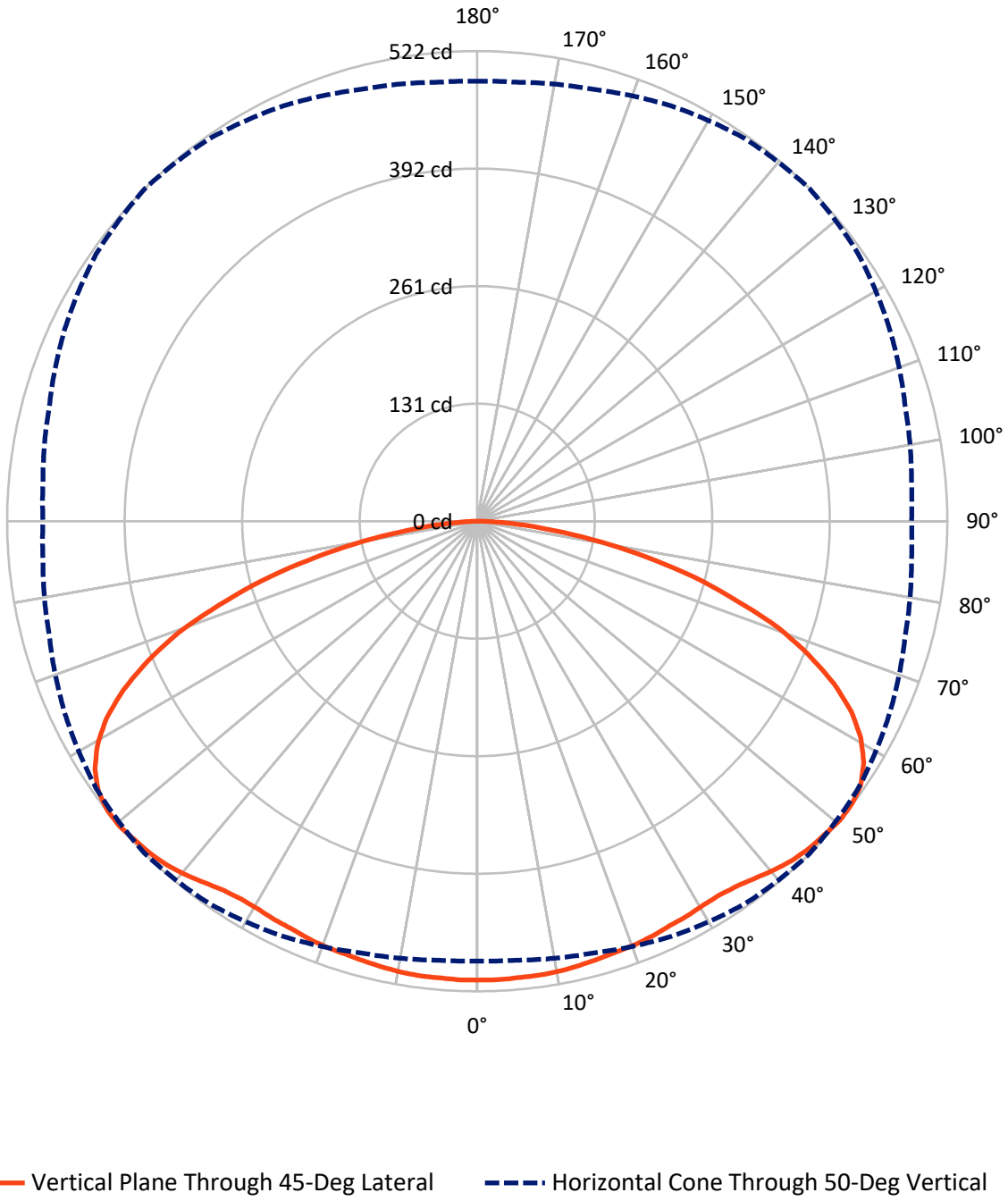
Based on 15 foot mounting height. Maximum calculated value = 2.3 fc
Type V - Short - N/A

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

Scaled Data Report

REPORT NUMBER: P880112
CATALOG NUMBER: MEM2-HSN-VA-30-730-U-CQ

Luminous Intensity Polar Plot



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

Scaled Data Report

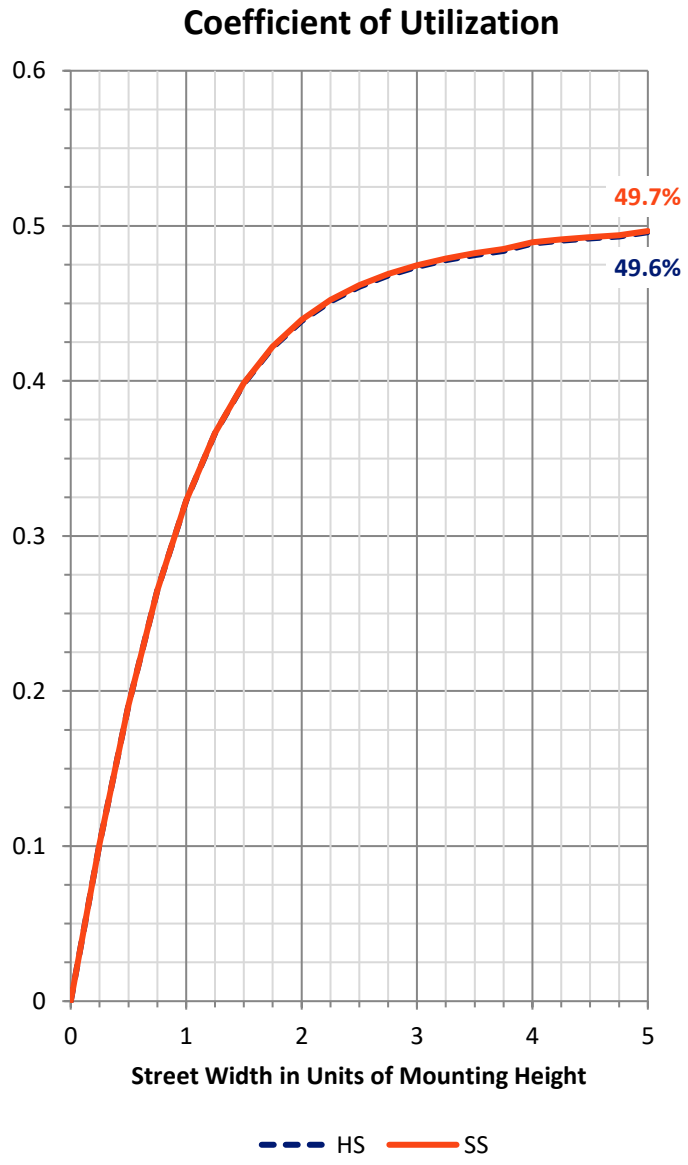
REPORT NUMBER: P880112
CATALOG NUMBER: MEM2-HSN-VA-30-730-U-CQ

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1127.7	0.0	1127.7
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	1127.7	0.0	1127.7
	% Fixture	50.0	0.0	50.0
Total	Lumens	2255.3	0.0	2255.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	48.6	2.2
10°-20°	142.9	6.3
20°-30°	229.9	10.2
30°-40°	310.3	13.8
40°-50°	390.2	17.3
50°-60°	438.6	19.4
60°-70°	399.4	17.7
70°-80°	241.2	10.7
80°-90°	54.4	2.4
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°	2255.3	100.0
0°-180°	2255.3	100.0



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

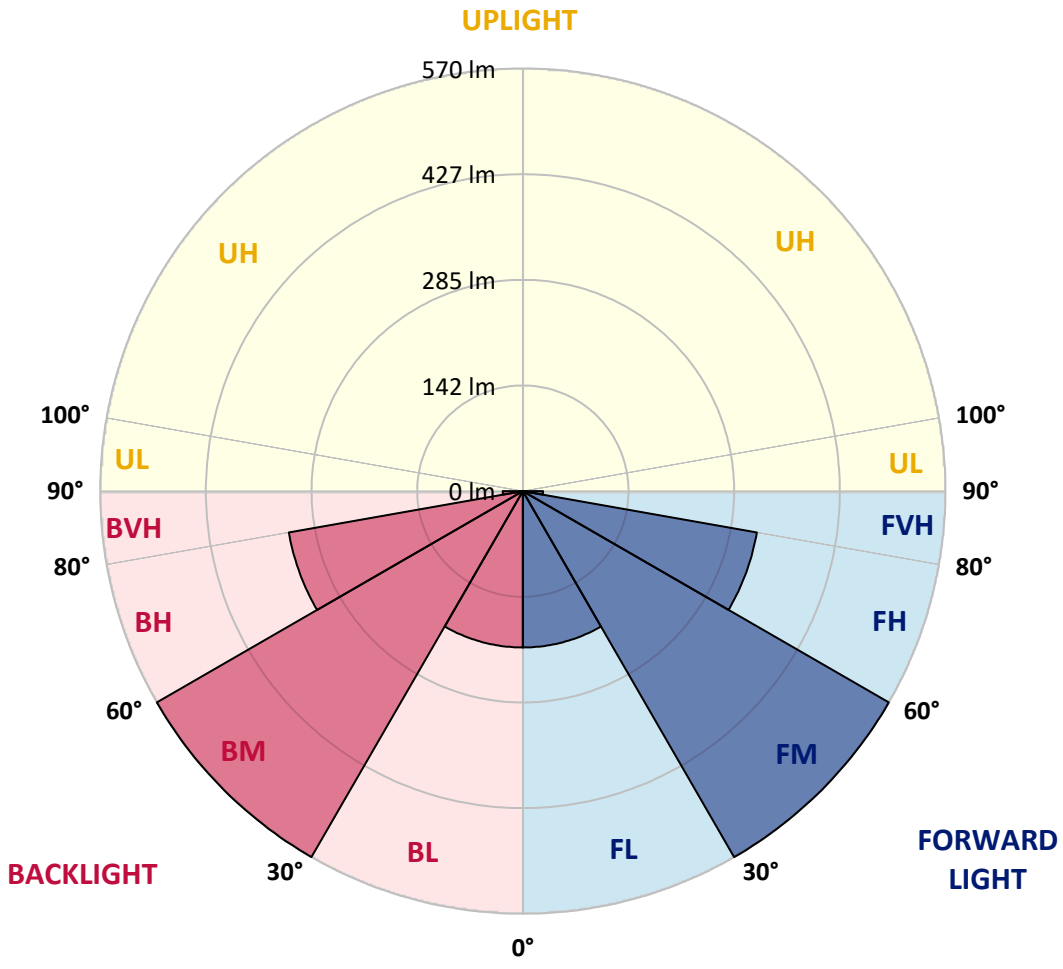
Scaled Data Report

REPORT NUMBER: P880112
CATALOG NUMBER: MEM2-HSN-VA-30-730-U-CQ

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	210.7	9.3			
FM	(30°-60°)	569.5	25.3			
FH	(60°-80°)	320.3	14.2			G0/660
FVH	(80°-90°)	27.2	1.2			G1/100
BL	(0°-30°)	210.7	9.3	B1/500		
BM	(30°-60°)	569.5	25.3	B1/1000		
BH	(60°-80°)	320.3	14.2	B1/500		G0/660
BVH	(80°-90°)	27.2	1.2			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



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

Scaled Data Report

REPORT NUMBER: P880112
CATALOG NUMBER: MEM2-HSN-VA-30-730-U-CQ

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	509.9	509.9	509.9	509.9	509.9	509.9	509.9	509.9	509.9	509.9	509.9
2.5°	509.9	509.9	509.9	509.9	509.9	509.9	509.9	509.9	509.9	509.9	509.9
5°	509.1	509.1	509.1	509.1	509.1	509.1	509.1	509.1	509.1	509.1	509.9
7.5°	508.2	509.1	509.1	508.2	509.1	509.1	509.1	509.1	509.1	509.1	509.1
10°	507.3	507.3	508.2	508.2	508.2	508.2	508.2	508.2	508.2	508.2	507.3
12.5°	505.5	506.4	506.4	506.4	506.4	506.4	506.4	506.4	506.4	506.4	506.4
15°	504.6	504.6	504.6	504.6	504.6	504.6	504.6	504.6	503.8	503.8	504.6
17.5°	502.0	502.0	502.9	502.9	502.9	502.9	502.9	502.9	502.0	502.0	502.0
20°	500.2	500.2	501.1	501.1	501.1	502.0	501.1	500.2	500.2	500.2	500.2
22.5°	498.4	498.4	499.3	499.3	500.2	500.2	499.3	499.3	498.4	498.4	498.4
25°	496.7	496.7	496.7	497.6	498.4	497.6	497.6	496.7	495.8	494.9	494.9
27.5°	494.0	494.0	494.0	495.8	495.8	496.7	495.8	494.9	493.1	492.2	492.2
30°	491.4	491.4	492.2	494.0	494.9	494.9	494.0	492.2	490.5	489.6	489.6
32.5°	488.7	489.6	490.5	493.1	494.0	494.9	493.1	491.4	488.7	486.9	486.9
35°	488.7	488.7	491.4	494.0	496.7	497.6	495.8	492.2	488.7	486.0	486.0
37.5°	489.6	490.5	494.0	497.6	501.1	502.9	500.2	495.8	490.5	486.9	486.9
40°	493.1	493.1	497.6	503.8	508.2	509.1	506.4	500.2	493.1	488.7	487.8
42.5°	494.9	495.8	500.2	507.3	512.6	514.4	510.8	503.8	494.9	488.7	487.8
45°	494.9	495.8	501.1	509.1	516.1	517.9	514.4	505.5	495.8	489.6	487.8
47.5°	492.2	493.1	500.2	509.9	517.9	519.7	515.3	506.4	494.9	487.8	486.0
50°	488.7	489.6	496.7	509.1	518.8	522.3	517.0	505.5	492.2	484.3	482.5
52.5°	481.6	482.5	492.2	505.5	517.9	521.5	515.3	502.9	486.9	478.1	476.3
55°	471.0	472.8	482.5	498.4	512.6	517.0	509.9	495.8	479.0	468.3	466.6
57.5°	456.8	457.7	469.2	486.9	502.0	506.4	499.3	484.3	465.7	454.2	453.3
60°	436.5	438.2	451.5	469.2	485.2	489.6	482.5	466.6	447.1	434.7	433.8
62.5°	411.7	413.4	425.8	446.2	462.1	466.6	459.5	442.7	423.2	409.9	409.0
65°	380.7	382.5	394.9	414.3	431.2	435.6	429.4	411.7	392.2	379.8	378.0
67.5°	346.2	347.9	359.4	376.3	391.3	397.5	391.3	376.3	357.7	342.6	340.9
70°	304.6	304.6	316.1	332.9	347.0	355.0	347.0	332.0	313.4	301.0	301.0
72.5°	261.2	259.4	270.0	286.0	297.5	301.0	299.2	286.0	268.3	256.7	255.0
75°	208.9	212.5	220.4	232.0	244.4	249.7	243.5	232.0	219.6	209.8	208.9
77.5°	162.0	164.7	171.8	181.5	188.6	192.1	190.3	181.5	168.2	163.8	162.0
80°	114.2	116.0	122.2	129.3	134.6	138.1	135.5	128.4	121.3	116.9	115.1
82.5°	74.4	73.5	78.8	83.2	87.6	86.8	85.9	80.6	77.9	74.4	73.5
85°	38.1	39.0	39.0	43.4	44.3	46.0	45.2	43.4	39.0	37.2	38.1
87.5°	12.4	12.4	13.3	13.3	15.1	15.1	15.9	14.2	13.3	11.5	11.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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

LM-79-2019: Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

Report Prepared for

Cooper Lighting Solutions

Streetworks

Report Number: SP1-2407-176-3

Test Date: 09/24/2024

Luminaire Tested: MEM2-HTN-VA-30-730-U-WQ

Data in this report applies to families of products including MEM2-HTN-VA-30-730-U-WQ

Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

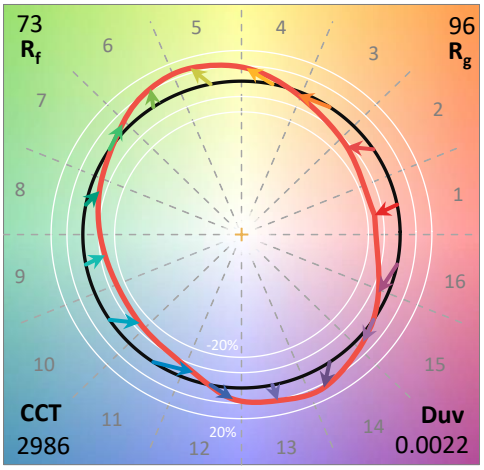
Test Information

Test Method:	LM-79-2019
Report Number:	SP1-2407-176-3
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-30-730-U-WQ**
Description:	EPIC MODERN VISUAL COMFORT 30W WAVESTREAM WIDE

Spectral Parameters

CCT (K):	2986	CRI (Ra):	71.3		
CIE u':	0.2503	R1:	68.5	R9:	-25.2
CIE v':	0.5248	R2:	79.2	R10:	51.0
Duv:	0.0022	R3:	88.4	R11:	63.6
CIE x:	0.4413	R4:	69.4	R12:	39.8
CIE y:	0.4112	R5:	66.3	R13:	69.9
CIE z:	0.1476	R6:	70.0	R14:	92.9
Peak Wavelength (nm):	596	R7:	80.1	R15:	61.4
Dominant Wavelength (nm):	582	R8:	48.3		
Purity:	55.87534				

Rf:	73.2
Rg:	95.9



Test Conditions

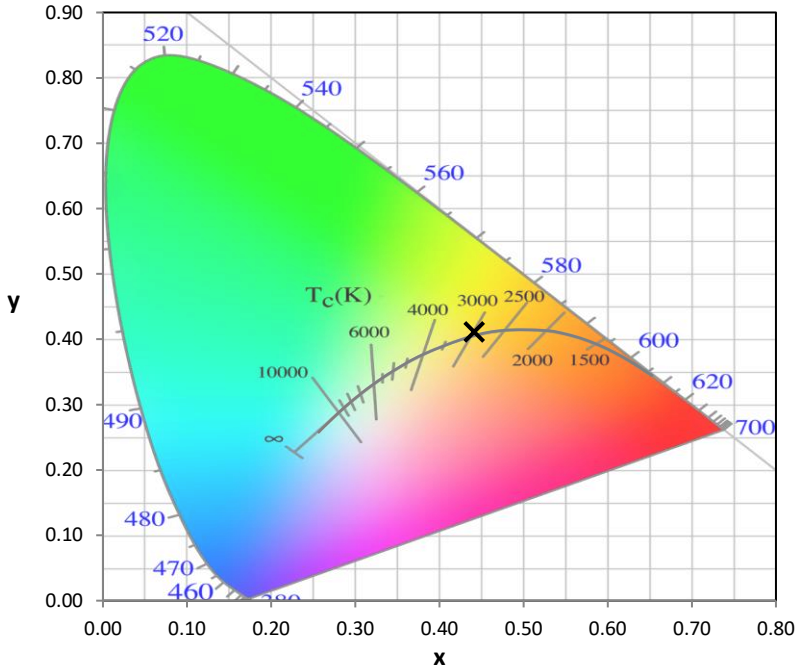
Stabilization Time:	27M
Operation Time:	1H 27M
Sphere Temperature (°C):	25.2

REPORT NUMBER: SP1-2407-176-3

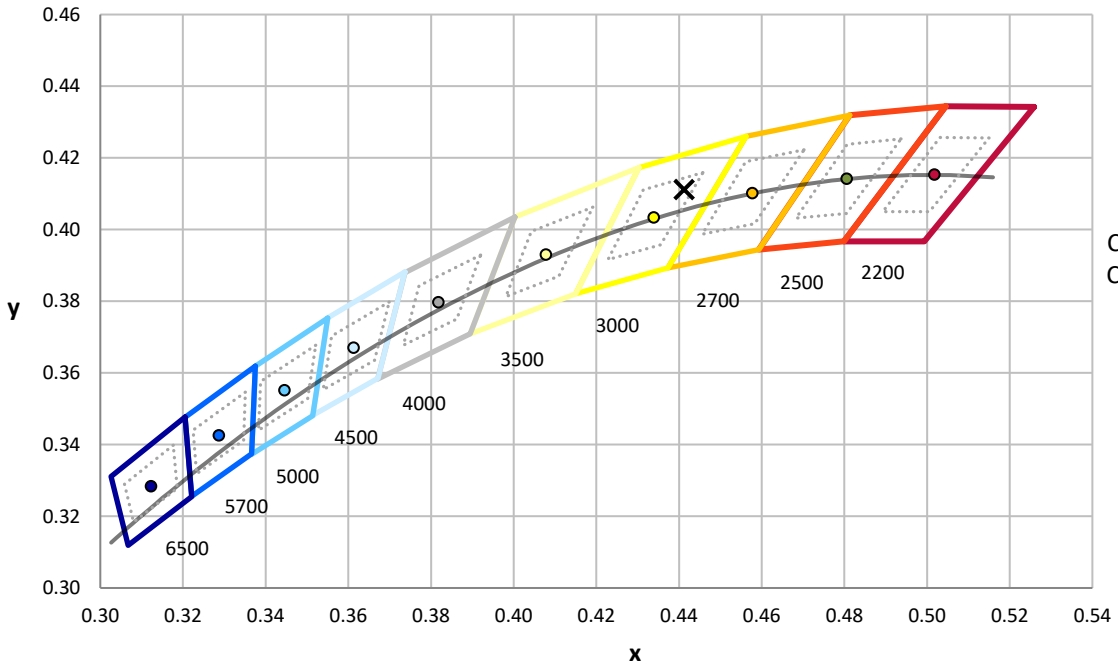
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

REPORT NUMBER: SP1-2407-176-3

CIE 1931 Chromaticity Diagram



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

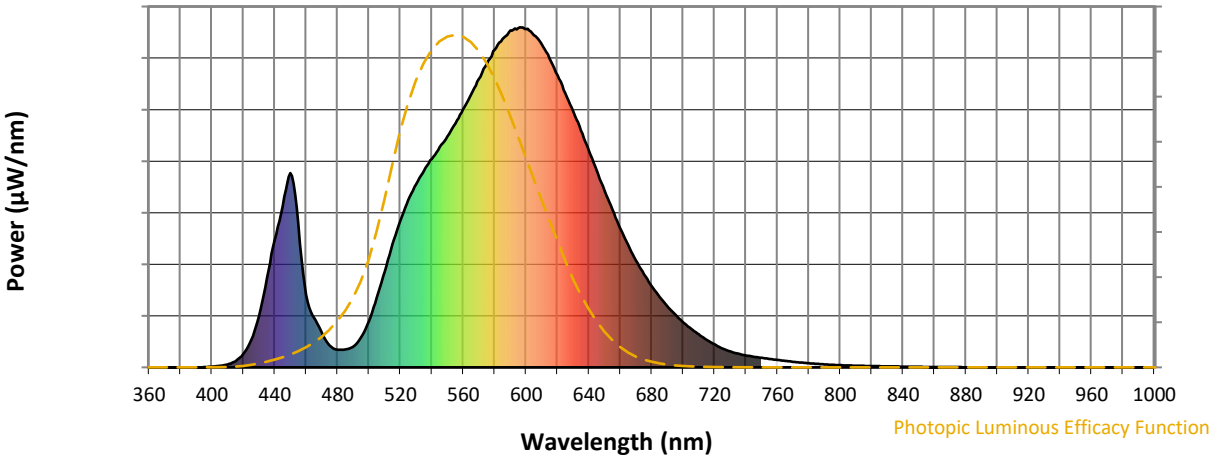


CCT = 2986K
CIE x = 0.4413
CIE y = 0.4112
Duv = 0.0022

Point lies inside the ANSI 3000K 4-step quadrangle

REPORT NUMBER: SP1-2407-176-3

Photopic Flux vs. Wavelength

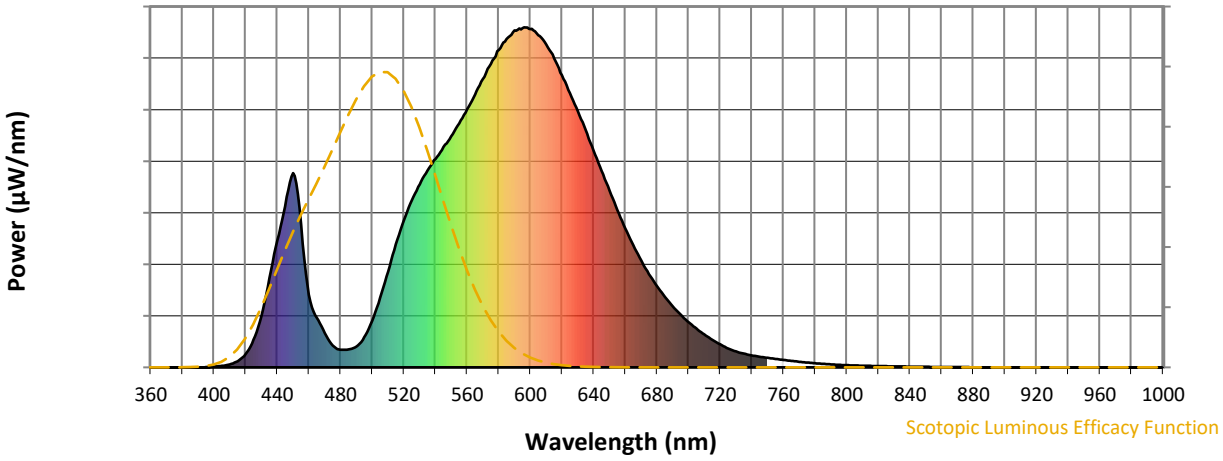


Photopic Lumens: NR

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	61	NR	620	859	NR	750	28	NR	880	0	NR
365	0	NR	495	88	NR	625	807	NR	755	25	NR	885	0	NR
370	0	NR	500	137	NR	630	753	NR	760	22	NR	890	0	NR
375	0	NR	505	205	NR	635	697	NR	765	19	NR	895	0	NR
380	0	NR	510	281	NR	640	637	NR	770	16	NR	900	0	NR
385	0	NR	515	363	NR	645	578	NR	775	14	NR	905	0	NR
390	0	NR	520	432	NR	650	520	NR	780	12	NR	910	0	NR
395	1	NR	525	492	NR	655	463	NR	785	10	NR	915	0	NR
400	2	NR	530	539	NR	660	409	NR	790	9	NR	920	0	NR
405	4	NR	535	579	NR	665	359	NR	795	8	NR	925	0	NR
410	9	NR	540	613	NR	670	315	NR	800	6	NR	930	0	NR
415	18	NR	545	648	NR	675	274	NR	805	6	NR	935	0	NR
420	39	NR	550	680	NR	680	239	NR	810	5	NR	940	0	NR
425	81	NR	555	717	NR	685	207	NR	815	4	NR	945	0	NR
430	151	NR	560	759	NR	690	180	NR	820	4	NR	950	0	NR
435	263	NR	565	803	NR	695	155	NR	825	3	NR	955	0	NR
440	375	NR	570	848	NR	700	133	NR	830	3	NR	960	0	NR
445	474	NR	575	892	NR	705	114	NR	835	3	NR	965	0	NR
450	571	NR	580	933	NR	710	97	NR	840	2	NR	970	0	NR
455	421	NR	585	966	NR	715	81	NR	845	2	NR	975	0	NR
460	214	NR	590	991	NR	720	67	NR	850	2	NR	980	0	NR
465	146	NR	595	998	NR	725	55	NR	855	1	NR	985	0	NR
470	101	NR	600	995	NR	730	47	NR	860	1	NR	990	0	NR
475	64	NR	605	977	NR	735	40	NR	865	1	NR	995	0	NR
480	52	NR	610	949	NR	740	35	NR	870	1	NR	1000	0	NR
485	53	NR	615	908	NR	745	31	NR	875	1	NR			

REPORT NUMBER: SP1-2407-176-3

Scotopic Flux vs. Wavelength

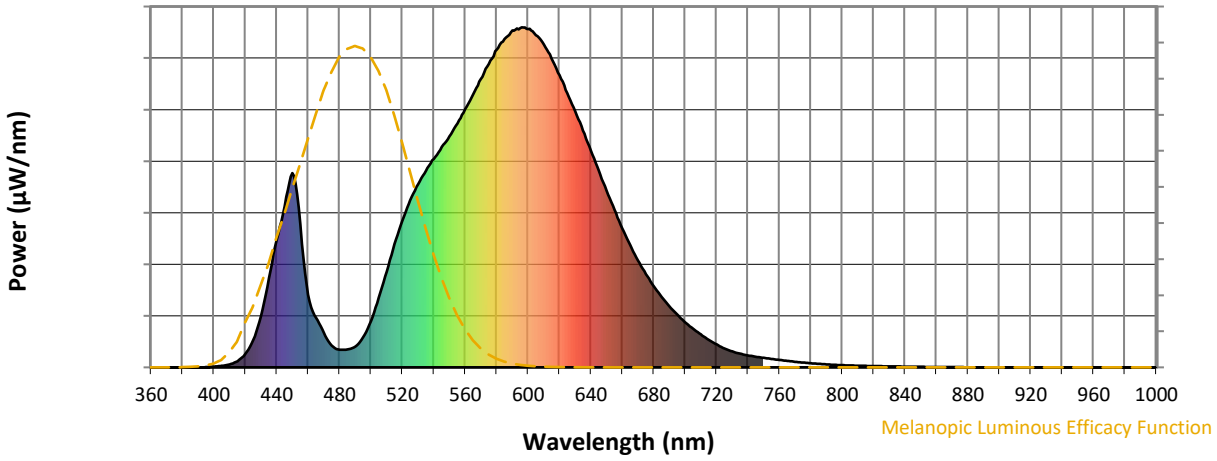


Scotopic Lumens: NR **S/P: 1.15**

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	61	NR	620	859	NR	750	28	NR	880	0	NR
365	0	NR	495	88	NR	625	807	NR	755	25	NR	885	0	NR
370	0	NR	500	137	NR	630	753	NR	760	22	NR	890	0	NR
375	0	NR	505	205	NR	635	697	NR	765	19	NR	895	0	NR
380	0	NR	510	281	NR	640	637	NR	770	16	NR	900	0	NR
385	0	NR	515	363	NR	645	578	NR	775	14	NR	905	0	NR
390	0	NR	520	432	NR	650	520	NR	780	12	NR	910	0	NR
395	1	NR	525	492	NR	655	463	NR	785	10	NR	915	0	NR
400	2	NR	530	539	NR	660	409	NR	790	9	NR	920	0	NR
405	4	NR	535	579	NR	665	359	NR	795	8	NR	925	0	NR
410	9	NR	540	613	NR	670	315	NR	800	6	NR	930	0	NR
415	18	NR	545	648	NR	675	274	NR	805	6	NR	935	0	NR
420	39	NR	550	680	NR	680	239	NR	810	5	NR	940	0	NR
425	81	NR	555	717	NR	685	207	NR	815	4	NR	945	0	NR
430	151	NR	560	759	NR	690	180	NR	820	4	NR	950	0	NR
435	263	NR	565	803	NR	695	155	NR	825	3	NR	955	0	NR
440	375	NR	570	848	NR	700	133	NR	830	3	NR	960	0	NR
445	474	NR	575	892	NR	705	114	NR	835	3	NR	965	0	NR
450	571	NR	580	933	NR	710	97	NR	840	2	NR	970	0	NR
455	421	NR	585	966	NR	715	81	NR	845	2	NR	975	0	NR
460	214	NR	590	991	NR	720	67	NR	850	2	NR	980	0	NR
465	146	NR	595	998	NR	725	55	NR	855	1	NR	985	0	NR
470	101	NR	600	995	NR	730	47	NR	860	1	NR	990	0	NR
475	64	NR	605	977	NR	735	40	NR	865	1	NR	995	0	NR
480	52	NR	610	949	NR	740	35	NR	870	1	NR	1000	0	NR
485	53	NR	615	908	NR	745	31	NR	875	1	NR			

REPORT NUMBER: SP1-2407-176-3

Melanopic Flux vs. Wavelength



Melanopic Lumens: NR **M/P: 2.01**

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	61	NR	620	859	NR	750	28	NR	880	0	NR
365	0	NR	495	88	NR	625	807	NR	755	25	NR	885	0	NR
370	0	NR	500	137	NR	630	753	NR	760	22	NR	890	0	NR
375	0	NR	505	205	NR	635	697	NR	765	19	NR	895	0	NR
380	0	NR	510	281	NR	640	637	NR	770	16	NR	900	0	NR
385	0	NR	515	363	NR	645	578	NR	775	14	NR	905	0	NR
390	0	NR	520	432	NR	650	520	NR	780	12	NR	910	0	NR
395	1	NR	525	492	NR	655	463	NR	785	10	NR	915	0	NR
400	2	NR	530	539	NR	660	409	NR	790	9	NR	920	0	NR
405	4	NR	535	579	NR	665	359	NR	795	8	NR	925	0	NR
410	9	NR	540	613	NR	670	315	NR	800	6	NR	930	0	NR
415	18	NR	545	648	NR	675	274	NR	805	6	NR	935	0	NR
420	39	NR	550	680	NR	680	239	NR	810	5	NR	940	0	NR
425	81	NR	555	717	NR	685	207	NR	815	4	NR	945	0	NR
430	151	NR	560	759	NR	690	180	NR	820	4	NR	950	0	NR
435	263	NR	565	803	NR	695	155	NR	825	3	NR	955	0	NR
440	375	NR	570	848	NR	700	133	NR	830	3	NR	960	0	NR
445	474	NR	575	892	NR	705	114	NR	835	3	NR	965	0	NR
450	571	NR	580	933	NR	710	97	NR	840	2	NR	970	0	NR
455	421	NR	585	966	NR	715	81	NR	845	2	NR	975	0	NR
460	214	NR	590	991	NR	720	67	NR	850	2	NR	980	0	NR
465	146	NR	595	998	NR	725	55	NR	855	1	NR	985	0	NR
470	101	NR	600	995	NR	730	47	NR	860	1	NR	990	0	NR
475	64	NR	605	977	NR	735	40	NR	865	1	NR	995	0	NR
480	52	NR	610	949	NR	740	35	NR	870	1	NR	1000	0	NR
485	53	NR	615	908	NR	745	31	NR	875	1	NR			

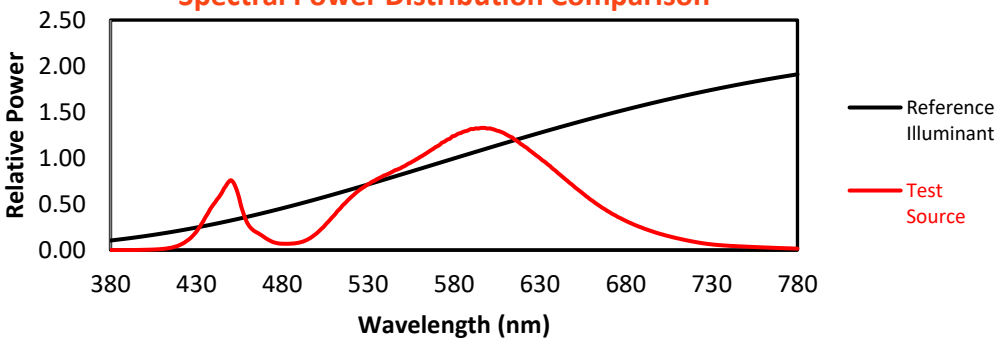
REPORT NUMBER: SP1-2407-176-3

TM-30-18

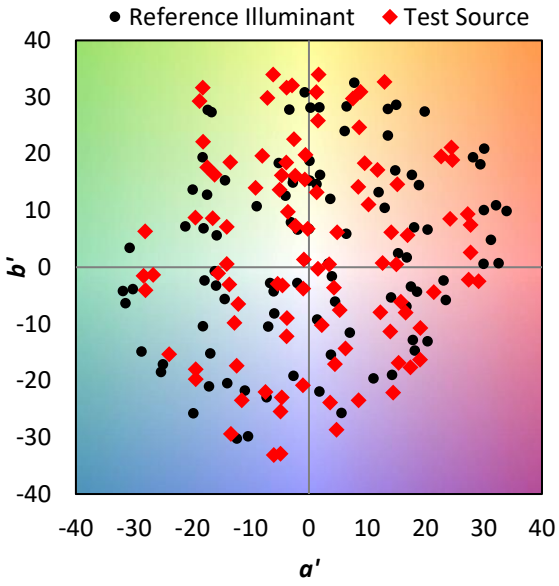
Summary

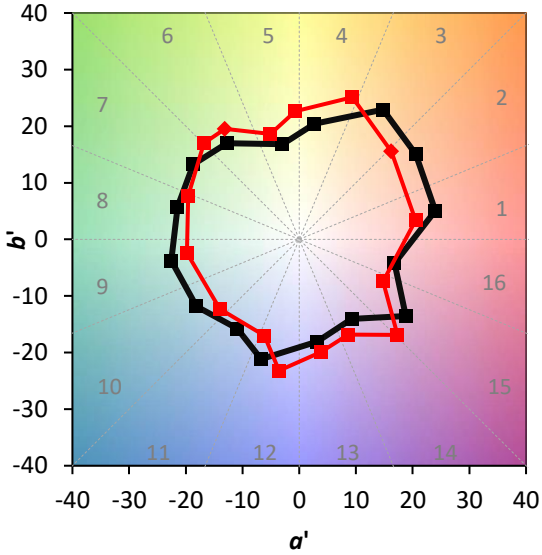
R_f = 73.2
R_g = 95.9
CIE R_a = 71.3
R_9 = -25.2

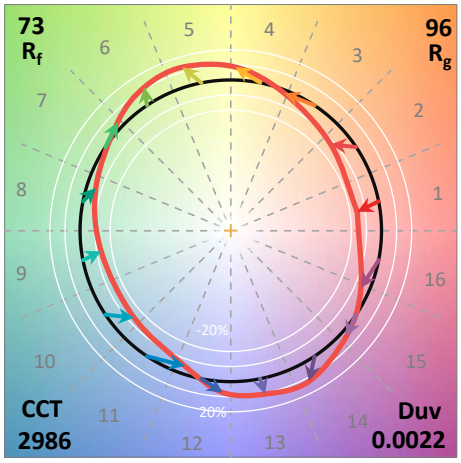
Spectral Power Distribution Comparison

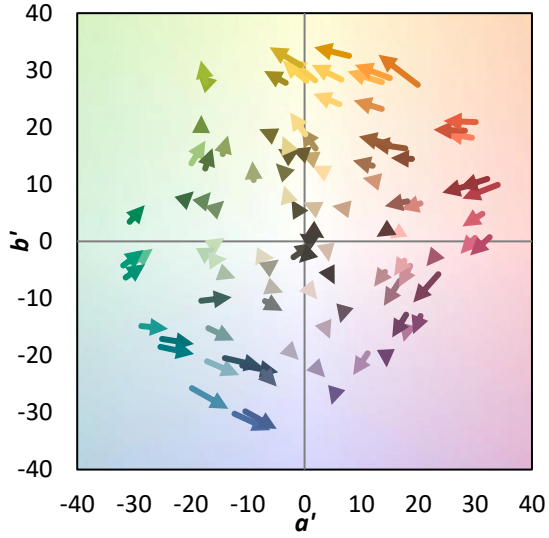


Color Vector Graphics







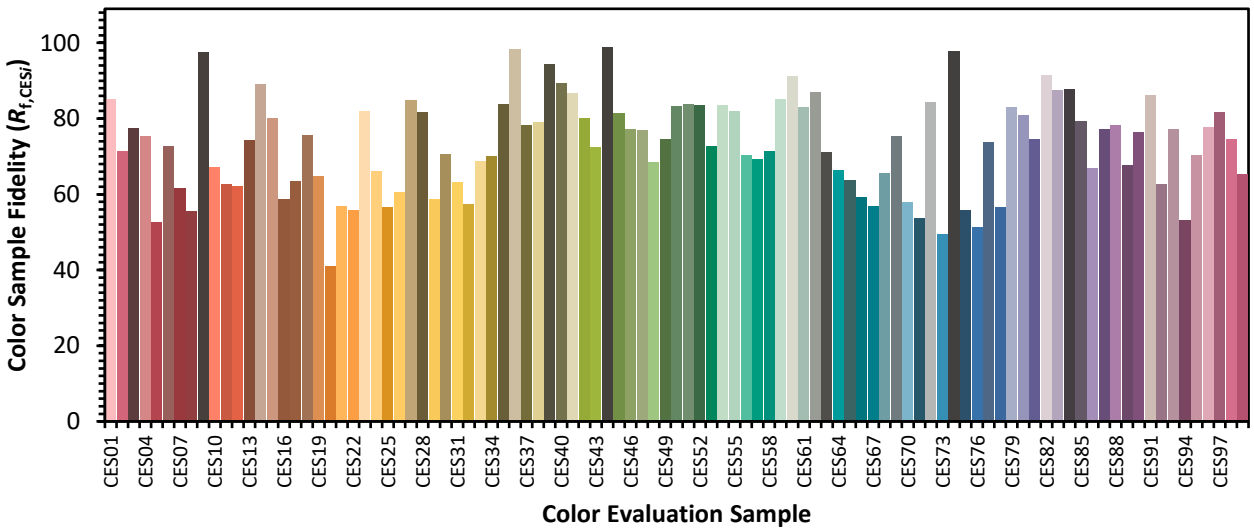


REPORT NUMBER: SP1-2407-176-3

TM-30-18

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

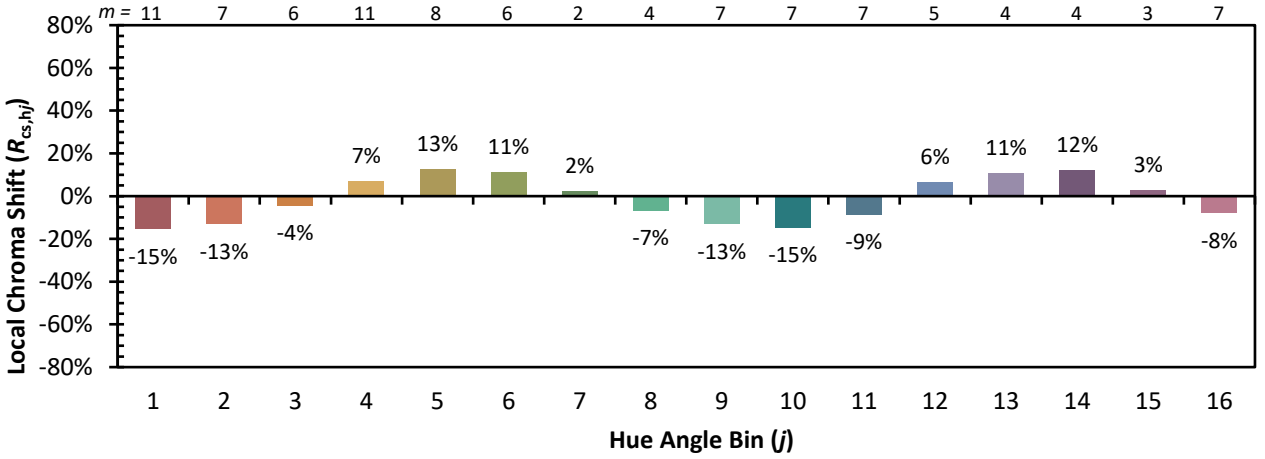
CES01 = 86	CES26 = 61	CES51 = 84	CES76 = 51
CES02 = 62	CES27 = 85	CES52 = 84	CES77 = 74
CES03 = 31	CES28 = 82	CES53 = 73	CES78 = 56
CES04 = 71	CES29 = 59	CES54 = 84	CES79 = 83
CES05 = 49	CES30 = 71	CES55 = 82	CES80 = 81
CES06 = 51	CES31 = 63	CES56 = 70	CES81 = 75
CES07 = 41	CES32 = 57	CES57 = 69	CES82 = 92
CES08 = 40	CES33 = 69	CES58 = 71	CES83 = 88
CES09 = 29	CES34 = 70	CES59 = 85	CES84 = 88
CES10 = 76	CES35 = 84	CES60 = 91	CES85 = 79
CES11 = 59	CES36 = 98	CES61 = 83	CES86 = 67
CES12 = 65	CES37 = 78	CES62 = 87	CES87 = 77
CES13 = 43	CES38 = 79	CES63 = 71	CES88 = 78
CES14 = 74	CES39 = 94	CES64 = 66	CES89 = 68
CES15 = 71	CES40 = 89	CES65 = 64	CES90 = 76
CES16 = 47	CES41 = 87	CES66 = 59	CES91 = 86
CES17 = 50	CES42 = 80	CES67 = 57	CES92 = 63
CES18 = 56	CES43 = 73	CES68 = 66	CES93 = 77
CES19 = 73	CES44 = 99	CES69 = 75	CES94 = 53
CES20 = 66	CES45 = 81	CES70 = 58	CES95 = 70
CES21 = 87	CES46 = 77	CES71 = 54	CES96 = 78
CES22 = 79	CES47 = 77	CES72 = 84	CES97 = 82
CES23 = 92	CES48 = 68	CES73 = 49	CES98 = 75
CES24 = 91	CES49 = 74	CES74 = 98	CES99 = 65
CES25 = 73	CES50 = 83	CES75 = 56	

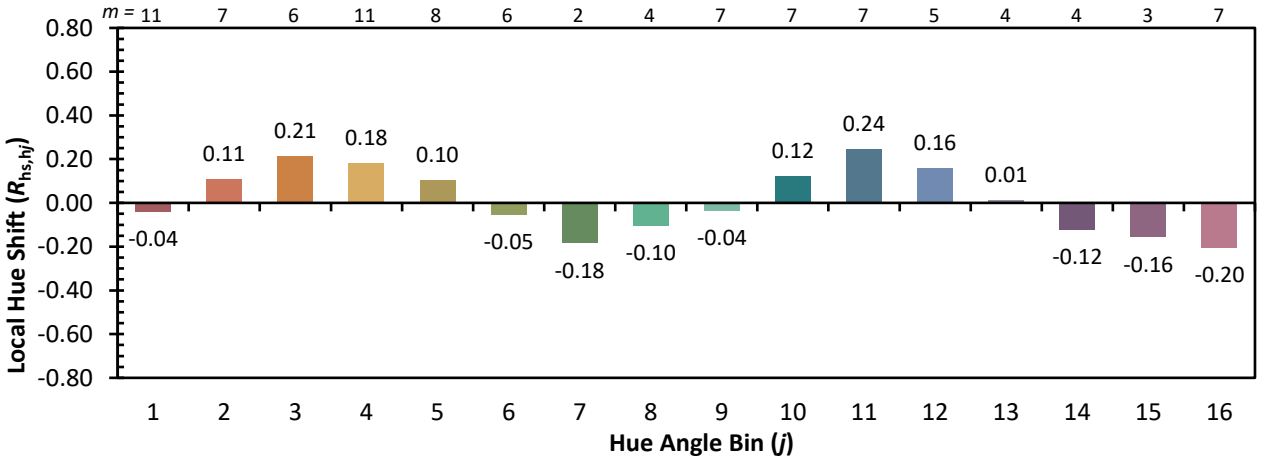


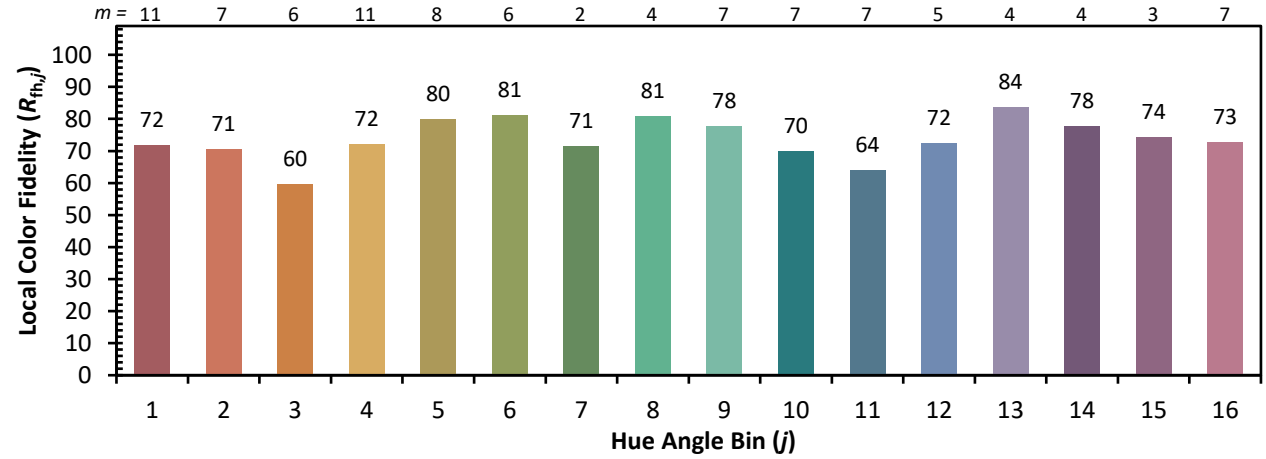
REPORT NUMBER: SP1-2407-176-3

TM-30-18

Color Rendition by Hue-Angle Bin



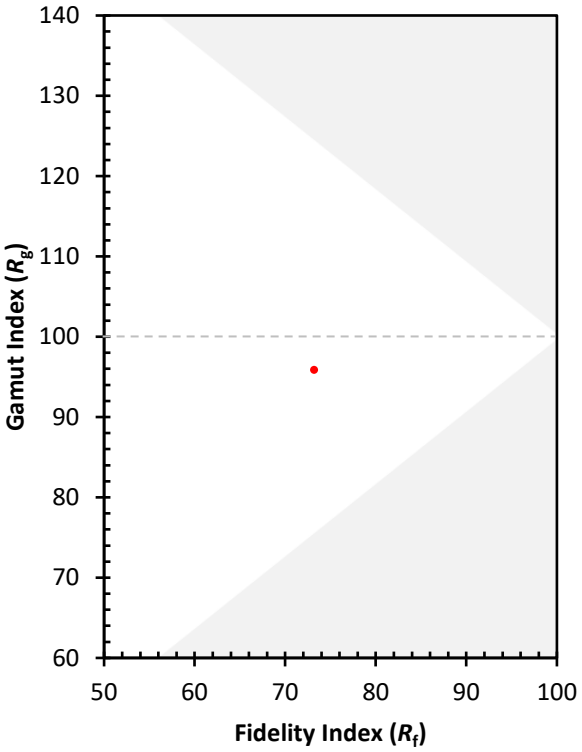


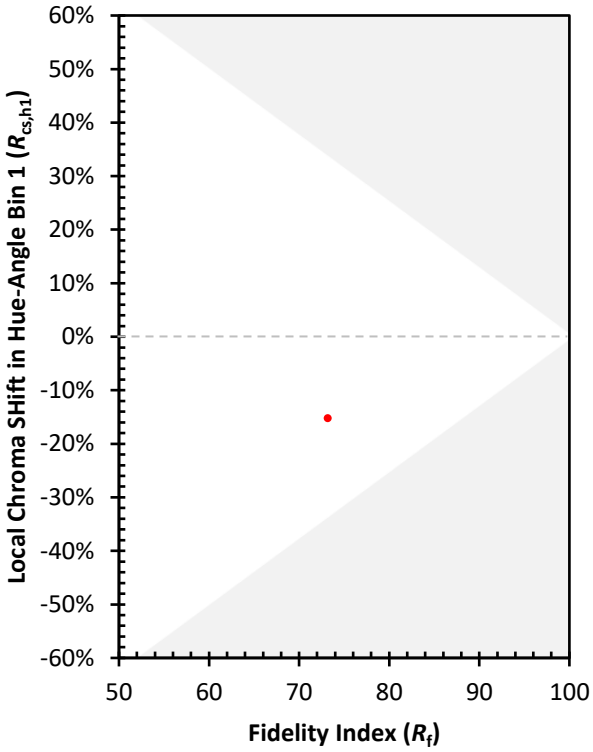


REPORT NUMBER: SP1-2407-176-3

TM-30-18

Measure Comparisons





(END OF REPORT)