

Signify Classified - Internal
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: P880046

Luminaire Tested: **MEM2-HSN-VA-30-735-U-MQ**

Issue Date: 10/01/2024



Test Information

Test Method: LM-79-08
Report Number: P880046
Test Lab: INNOVATION CENTER(G3)
Issue Date: 10/01/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: MEM2-HSN-VA-30-735-U-MQ
Description: EPIC MODERN SHORT HOUSING 30W 70CRI 3500K VISUAL COMFORT FIXTURE w/
TYPE V MEDIUM DISTRIBUTION OPTIC
Light Source: (1) 3500K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

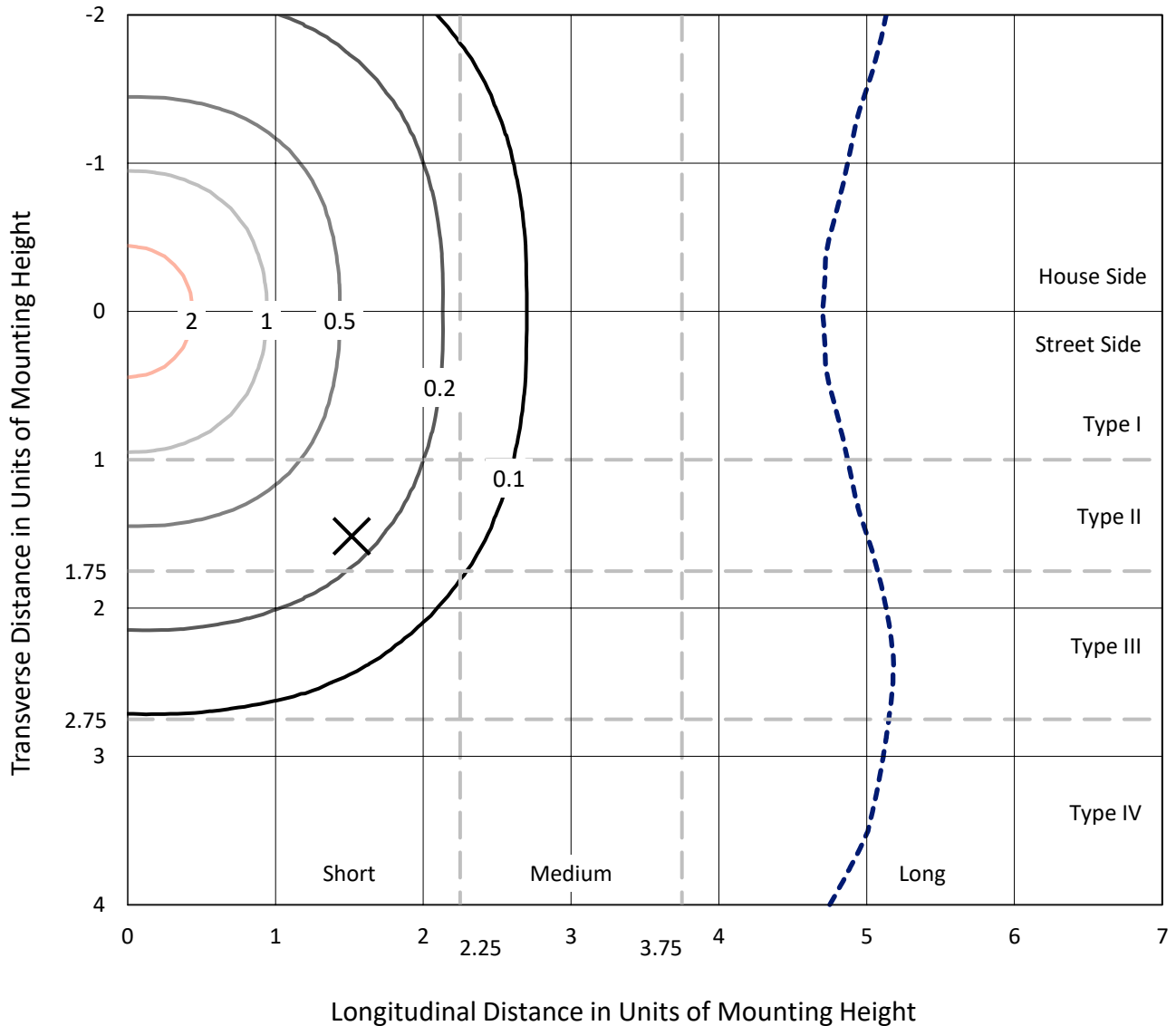
Lumens per Lamp: N/A
Luminaire Lumens: 3233.1 lumens
Efficiency: N/A
Efficacy: 115.5 lumens/watt
Luminous Opening: Circular (Dia: 1.12' x H: 0')
IES Classification: Type V - Short
BUG Rating: B2 - U0 - G1

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

REPORT NUMBER: P880046
 CATALOG NUMBER: MEM2-HSN-VA-30-735-U-MQ

Iso-Footcandle Lines of Horizontal Illumination

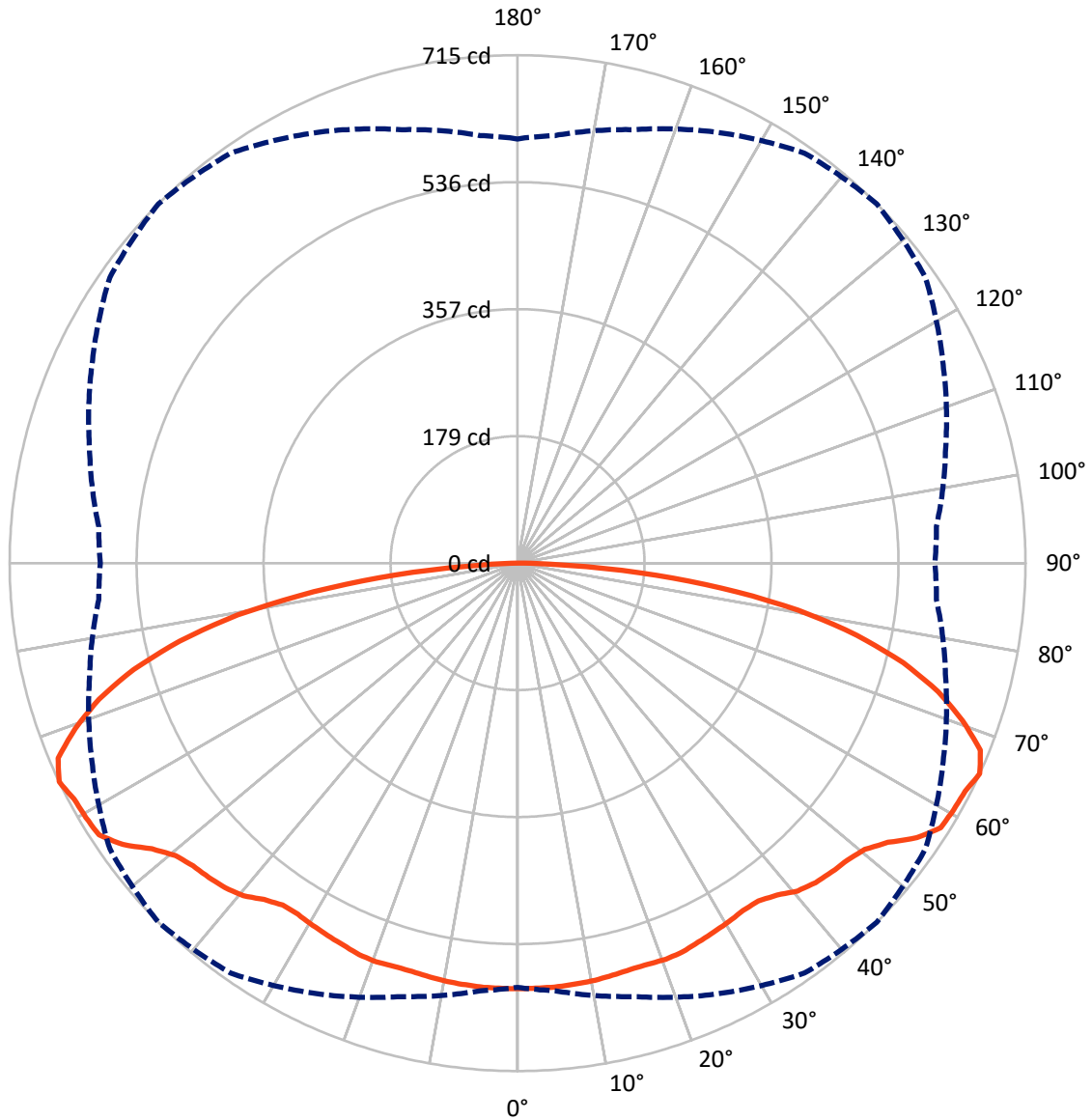
× Max cd
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 2.7 fc
 Type V - Short - N/A

REPORT NUMBER: P880046
CATALOG NUMBER: MEM2-HSN-VA-30-735-U-MQ

Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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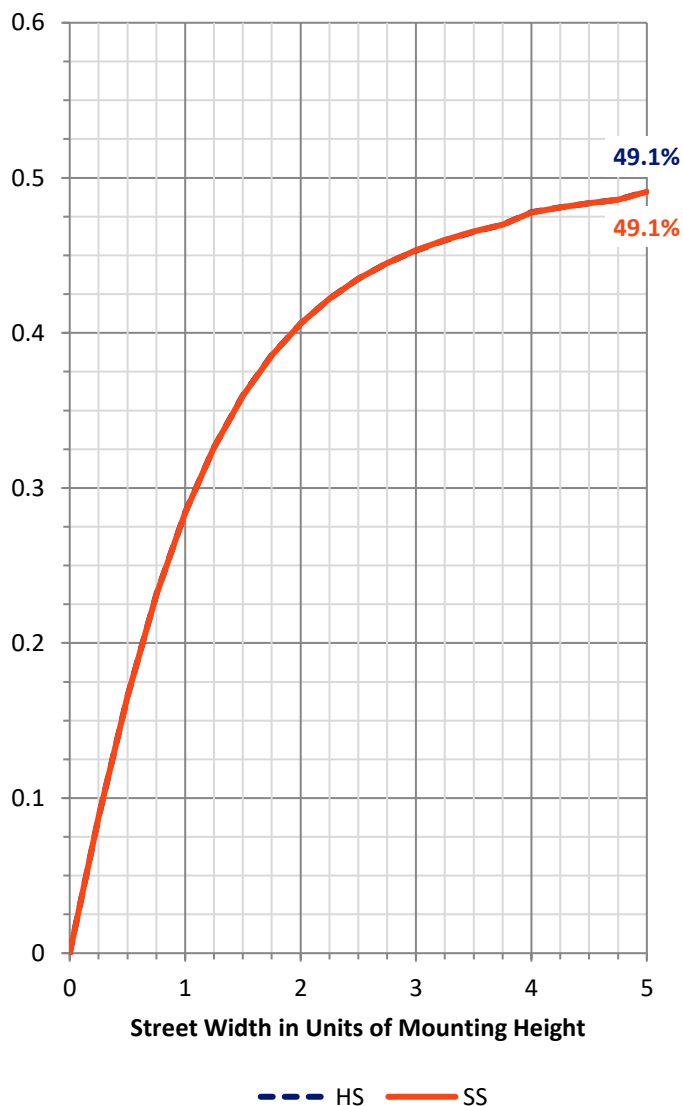
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1616.6	0.0	1616.6
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	1616.6	0.0	1616.6
	% Fixture	50.0	0.0	50.0
Total	Lumens	3233.1	0.0	3233.1
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	57.1	1.8
10°-20°	168.3	5.2
20°-30°	272.5	8.4
30°-40°	366.2	11.3
40°-50°	467.4	14.5
50°-60°	575.0	17.8
60°-70°	640.3	19.8
70°-80°	519.8	16.1
80°-90°	166.4	5.1
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°	3233.1	100.0
0°-180°	3233.1	100.0



REPORT NUMBER: P880046

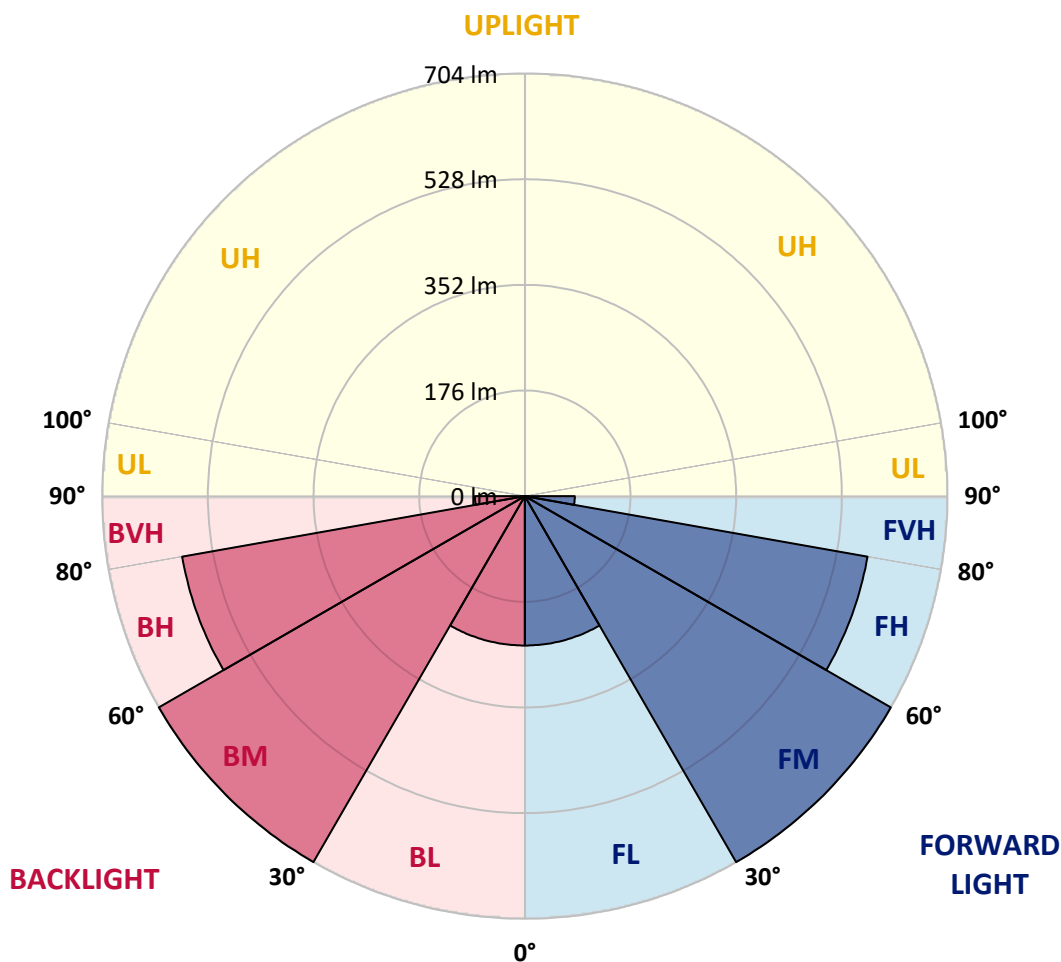
CATALOG NUMBER: MEM2-HSN-VA-30-735-U-MQ

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	249.0	7.7			
FM (30°-60°)	704.3	21.8			
FH (60°-80°)	580.0	17.9			G0/660
FVH (80°-90°)	83.2	2.6			G1/100
BL (0°-30°)	249.0	7.7	B1/500		
BM (30°-60°)	704.3	21.8	B1/1000		
BH (60°-80°)	580.0	17.9	B2/1000		G0/660
BVH (80°-90°)	83.2	2.6			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G1

Type V Short





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 CATALOG NUMBER: MEM2-HSN-VA-30-735-U-MQ

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	598.8	598.8	598.8	598.8	598.8	598.8	598.8	598.8	598.8	598.8	598.8
2.5°	598.8	598.8	598.8	598.8	598.8	598.8	598.8	598.8	598.8	598.8	598.8
5°	598.8	598.8	598.8	598.8	598.8	598.8	598.8	598.8	597.9	598.8	598.8
7.5°	597.9	597.9	597.9	597.9	597.9	597.9	597.9	597.9	597.9	597.9	597.9
10°	597.0	597.0	597.0	597.0	597.0	597.0	597.0	597.0	597.0	597.0	597.0
12.5°	595.2	595.2	595.2	595.2	595.2	595.2	595.2	595.2	595.2	595.2	595.2
15°	592.6	593.4	593.4	593.4	593.4	593.4	593.4	593.4	593.4	592.6	592.6
17.5°	591.7	591.7	591.7	592.6	593.4	593.4	593.4	592.6	591.7	590.8	590.8
20°	592.6	592.6	592.6	593.4	594.3	595.2	594.3	593.4	591.7	591.7	591.7
22.5°	591.7	592.6	592.6	593.4	594.3	594.3	593.4	592.6	591.7	590.8	590.8
25°	589.0	589.0	589.9	590.8	590.8	590.8	590.8	589.0	588.1	587.2	587.2
27.5°	585.5	586.4	586.4	587.2	588.1	588.1	587.2	585.5	584.6	583.7	583.7
30°	581.0	581.0	581.9	583.7	584.6	585.5	583.7	581.9	579.3	578.4	578.4
32.5°	576.6	577.5	579.3	581.0	581.9	582.8	581.0	579.3	576.6	574.8	574.0
35°	574.8	574.8	577.5	581.0	583.7	583.7	581.9	578.4	574.8	571.3	571.3
37.5°	577.5	578.4	581.9	588.1	592.6	592.6	591.7	585.5	579.3	574.0	573.1
40°	583.7	584.6	590.8	598.8	605.8	606.7	603.2	595.2	586.4	580.2	578.4
42.5°	587.2	589.0	596.1	605.8	612.0	614.7	610.3	602.3	590.8	582.8	581.9
45°	589.0	590.8	598.8	609.4	617.4	620.0	615.6	605.0	592.6	583.7	582.8
47.5°	589.9	591.7	599.6	612.9	621.8	624.4	620.9	608.5	593.4	584.6	583.7
50°	590.8	594.3	604.1	618.2	631.5	633.3	628.0	612.9	597.0	586.4	583.7
52.5°	597.0	599.6	613.8	634.2	647.5	652.8	644.8	629.8	605.8	589.9	588.1
55°	612.0	612.9	629.8	655.4	674.9	682.0	669.6	649.2	620.0	604.1	603.2
57.5°	616.5	621.8	640.4	669.6	693.5	702.4	691.8	660.8	634.2	612.9	607.6
60°	612.0	616.5	638.6	672.3	698.0	705.0	697.1	667.8	628.9	605.0	600.5
62.5°	607.6	612.9	636.0	674.0	698.8	706.8	693.5	668.7	626.2	602.3	597.9
65°	597.0	604.1	631.5	668.7	704.2	714.8	700.6	660.8	623.6	591.7	587.2
67.5°	576.6	580.2	610.3	653.7	691.8	702.4	687.3	645.7	601.4	570.4	566.9
70°	538.5	546.5	574.8	622.7	659.0	664.3	652.8	611.2	567.8	535.0	530.6
72.5°	488.0	499.6	530.6	579.3	608.5	619.1	604.1	570.4	525.2	488.0	481.8
75°	434.9	441.1	473.0	520.8	550.9	560.7	547.4	514.6	460.6	434.9	428.7
77.5°	376.4	380.9	409.2	451.7	480.1	488.0	474.8	448.2	399.5	375.6	372.9
80°	294.9	303.8	330.4	366.7	388.0	400.4	386.2	360.5	325.1	296.7	292.3
82.5°	210.8	217.0	240.9	265.7	286.1	289.6	283.4	258.6	232.1	209.9	204.6
85°	115.1	117.8	132.9	158.5	166.5	172.7	163.9	145.3	132.0	117.8	113.4
87.5°	30.1	31.0	35.4	41.6	45.2	46.1	45.2	39.9	32.8	25.7	28.3
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: SP1-2407-176-4

Test Date: 09/24/2024

Luminaire Tested: MEM2-HTN-VA-30-735-U-WQ

Data in this report applies to families of products including MEM2-HTN-VA-30-735-U-WQ

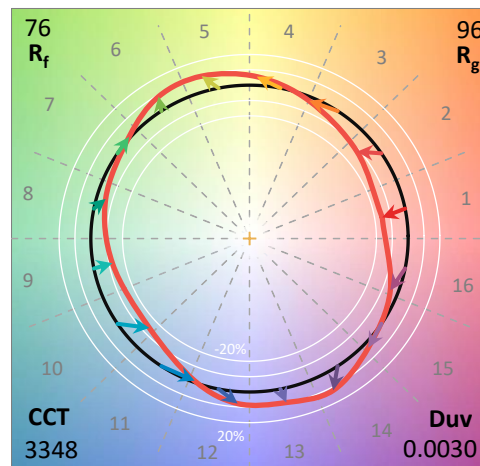
Test Information

Test Method: LM-79-2019
 Report Number: SP1-2407-176-4
 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-30-735-U-WQ**
 Description: EPIC MODERN VISUAL COMFORT 30W WAVESTREAM WIDE

Spectral Parameters

CCT (K): 3348
 CIE u': 0.2384
 CIE v': 0.5184
 Duv: 0.0030
 CIE x: 0.4177
 CIE y: 0.4036
 CIE z: 0.1787
 Peak Wavelength (nm): 593
 Dominant Wavelength (nm): 580
 Purity: 46.5223
 Rf: 75.8
 Rg: 95.8

CRI (Ra):	73.4		
R1:	70.8	R9:	-19.2
R2:	79.9	R10:	52.5
R3:	87.6	R11:	68.0
R4:	72.6	R12:	42.6
R5:	69.3	R13:	72.0
R6:	71.3	R14:	92.6
R7:	82.1	R15:	63.8
R8:	53.3		



Test Conditions

Stabilization Time: 30M
 Operation Time: 1H 30M
 Sphere Temperature (°C): 25.2

REPORT NUMBER: SP1-2407-176-4

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



Point lies inside the ANSI 3500K 4-step quadrangle

REPORT NUMBER: SP1-2407-176-4

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	110	NR	620	844	NR	750	28	NR	880	0	NR
365	0	NR	495	150	NR	625	792	NR	755	25	NR	885	0	NR
370	0	NR	500	214	NR	630	737	NR	760	22	NR	890	0	NR
375	0	NR	505	293	NR	635	683	NR	765	19	NR	895	0	NR
380	0	NR	510	376	NR	640	625	NR	770	16	NR	900	0	NR
385	0	NR	515	458	NR	645	566	NR	775	14	NR	905	0	NR
390	0	NR	520	526	NR	650	509	NR	780	12	NR	910	0	NR
395	1	NR	525	584	NR	655	453	NR	785	10	NR	915	0	NR
400	3	NR	530	631	NR	660	401	NR	790	9	NR	920	0	NR
405	5	NR	535	671	NR	665	353	NR	795	8	NR	925	0	NR
410	10	NR	540	704	NR	670	308	NR	800	7	NR	930	0	NR
415	21	NR	545	737	NR	675	269	NR	805	6	NR	935	0	NR
420	44	NR	550	766	NR	680	235	NR	810	5	NR	940	0	NR
425	90	NR	555	797	NR	685	204	NR	815	4	NR	945	0	NR
430	171	NR	560	832	NR	690	177	NR	820	4	NR	950	0	NR
435	305	NR	565	866	NR	695	152	NR	825	3	NR	955	0	NR
440	455	NR	570	901	NR	700	131	NR	830	3	NR	960	0	NR
445	615	NR	575	933	NR	705	112	NR	835	3	NR	965	0	NR
450	771	NR	580	963	NR	710	96	NR	840	2	NR	970	0	NR
455	579	NR	585	984	NR	715	80	NR	845	2	NR	975	0	NR
460	313	NR	590	1000	NR	720	67	NR	850	2	NR	980	0	NR
465	221	NR	595	999	NR	725	55	NR	855	1	NR	985	0	NR
470	156	NR	600	990	NR	730	46	NR	860	1	NR	990	0	NR
475	103	NR	605	968	NR	735	40	NR	865	1	NR	995	0	NR
480	89	NR	610	937	NR	740	35	NR	870	1	NR	1000	0	NR
485	93	NR	615	893	NR	745	31	NR	875	1	NR			

REPORT NUMBER: SP1-2407-176-4

Scotopic Flux vs. Wavelength



Scotopic Lumens: NR

S/P: 1.31

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	110	NR	620	844	NR	750	28	NR	880	0	NR
365	0	NR	495	150	NR	625	792	NR	755	25	NR	885	0	NR
370	0	NR	500	214	NR	630	737	NR	760	22	NR	890	0	NR
375	0	NR	505	293	NR	635	683	NR	765	19	NR	895	0	NR
380	0	NR	510	376	NR	640	625	NR	770	16	NR	900	0	NR
385	0	NR	515	458	NR	645	566	NR	775	14	NR	905	0	NR
390	0	NR	520	526	NR	650	509	NR	780	12	NR	910	0	NR
395	1	NR	525	584	NR	655	453	NR	785	10	NR	915	0	NR
400	3	NR	530	631	NR	660	401	NR	790	9	NR	920	0	NR
405	5	NR	535	671	NR	665	353	NR	795	8	NR	925	0	NR
410	10	NR	540	704	NR	670	308	NR	800	7	NR	930	0	NR
415	21	NR	545	737	NR	675	269	NR	805	6	NR	935	0	NR
420	44	NR	550	766	NR	680	235	NR	810	5	NR	940	0	NR
425	90	NR	555	797	NR	685	204	NR	815	4	NR	945	0	NR
430	171	NR	560	832	NR	690	177	NR	820	4	NR	950	0	NR
435	305	NR	565	866	NR	695	152	NR	825	3	NR	955	0	NR
440	455	NR	570	901	NR	700	131	NR	830	3	NR	960	0	NR
445	615	NR	575	933	NR	705	112	NR	835	3	NR	965	0	NR
450	771	NR	580	963	NR	710	96	NR	840	2	NR	970	0	NR
455	579	NR	585	984	NR	715	80	NR	845	2	NR	975	0	NR
460	313	NR	590	1000	NR	720	67	NR	850	2	NR	980	0	NR
465	221	NR	595	999	NR	725	55	NR	855	1	NR	985	0	NR
470	156	NR	600	990	NR	730	46	NR	860	1	NR	990	0	NR
475	103	NR	605	968	NR	735	40	NR	865	1	NR	995	0	NR
480	89	NR	610	937	NR	740	35	NR	870	1	NR	1000	0	NR
485	93	NR	615	893	NR	745	31	NR	875	1	NR			

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Melanopic Flux vs. Wavelength



Melanopic Lumens: NR

M/P: 2.4

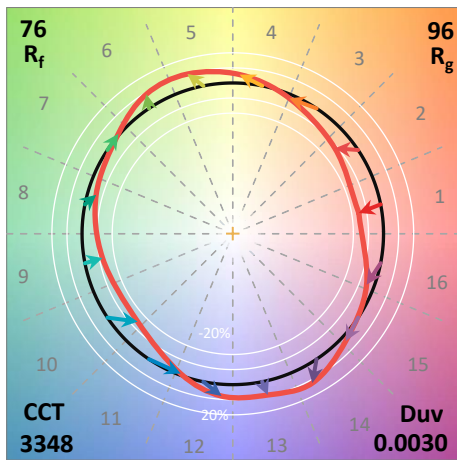
λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)
360	0	NR	490	110	NR	620	844	NR	750	28	NR	880	0	NR
365	0	NR	495	150	NR	625	792	NR	755	25	NR	885	0	NR
370	0	NR	500	214	NR	630	737	NR	760	22	NR	890	0	NR
375	0	NR	505	293	NR	635	683	NR	765	19	NR	895	0	NR
380	0	NR	510	376	NR	640	625	NR	770	16	NR	900	0	NR
385	0	NR	515	458	NR	645	566	NR	775	14	NR	905	0	NR
390	0	NR	520	526	NR	650	509	NR	780	12	NR	910	0	NR
395	1	NR	525	584	NR	655	453	NR	785	10	NR	915	0	NR
400	3	NR	530	631	NR	660	401	NR	790	9	NR	920	0	NR
405	5	NR	535	671	NR	665	353	NR	795	8	NR	925	0	NR
410	10	NR	540	704	NR	670	308	NR	800	7	NR	930	0	NR
415	21	NR	545	737	NR	675	269	NR	805	6	NR	935	0	NR
420	44	NR	550	766	NR	680	235	NR	810	5	NR	940	0	NR
425	90	NR	555	797	NR	685	204	NR	815	4	NR	945	0	NR
430	171	NR	560	832	NR	690	177	NR	820	4	NR	950	0	NR
435	305	NR	565	866	NR	695	152	NR	825	3	NR	955	0	NR
440	455	NR	570	901	NR	700	131	NR	830	3	NR	960	0	NR
445	615	NR	575	933	NR	705	112	NR	835	3	NR	965	0	NR
450	771	NR	580	963	NR	710	96	NR	840	2	NR	970	0	NR
455	579	NR	585	984	NR	715	80	NR	845	2	NR	975	0	NR
460	313	NR	590	1000	NR	720	67	NR	850	2	NR	980	0	NR
465	221	NR	595	999	NR	725	55	NR	855	1	NR	985	0	NR
470	156	NR	600	990	NR	730	46	NR	860	1	NR	990	0	NR
475	103	NR	605	968	NR	735	40	NR	865	1	NR	995	0	NR
480	89	NR	610	937	NR	740	35	NR	870	1	NR	1000	0	NR
485	93	NR	615	893	NR	745	31	NR	875	1	NR			

Summary

$R_f = 75.8$
 $R_g = 95.8$
 $CIE R_a = 73.4$
 $R_9 = -19.2$

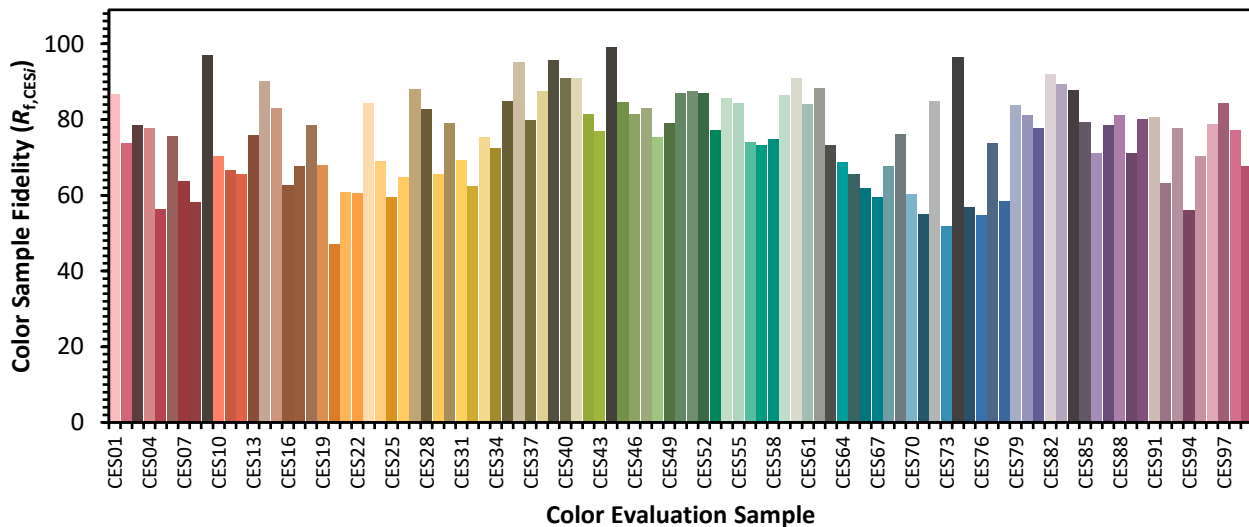


Color Vector Graphics

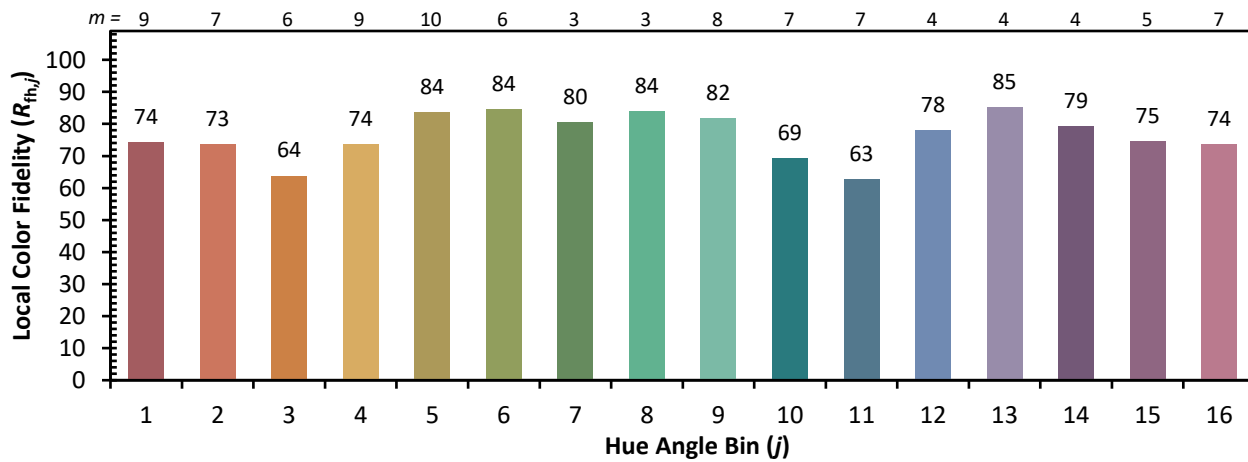


Individual Sample Fidelity Index ($R_{f,i}$)

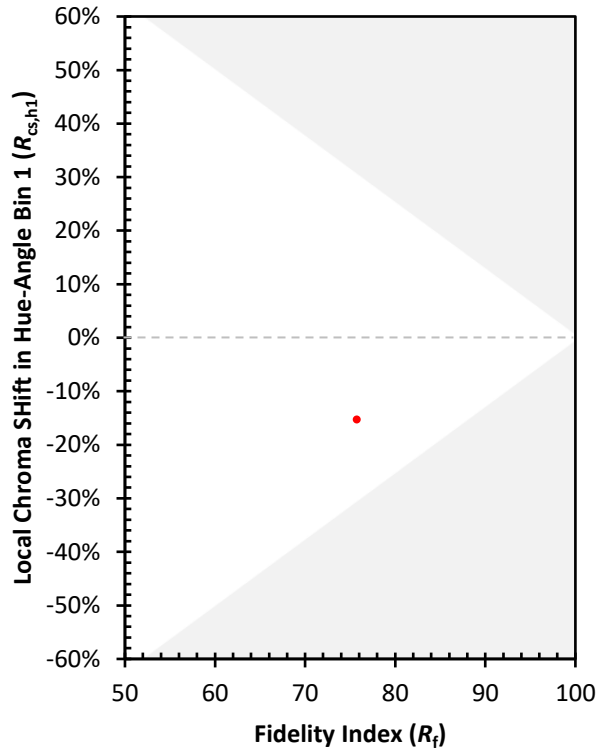
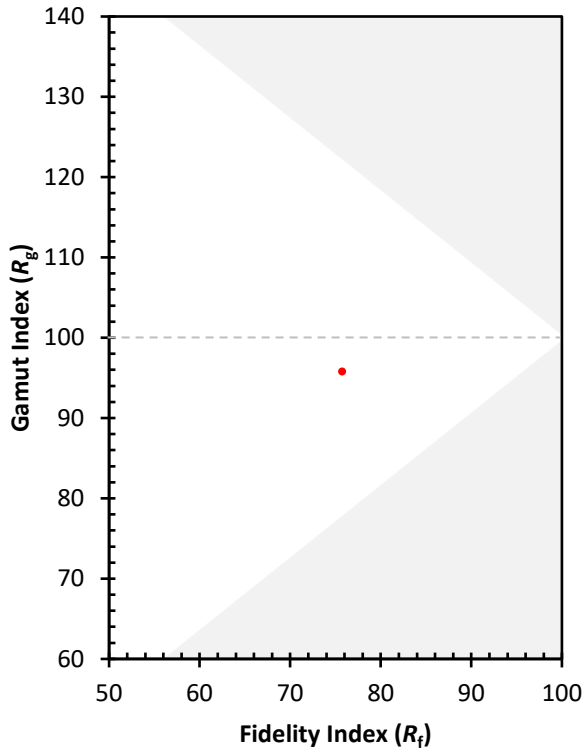
CES01 = 86	CES26 = 65	CES51 = 88	CES76 = 55
CES02 = 62	CES27 = 88	CES52 = 87	CES77 = 74
CES03 = 31	CES28 = 83	CES53 = 77	CES78 = 58
CES04 = 70	CES29 = 66	CES54 = 86	CES79 = 84
CES05 = 48	CES30 = 79	CES55 = 84	CES80 = 81
CES06 = 51	CES31 = 69	CES56 = 74	CES81 = 78
CES07 = 41	CES32 = 62	CES57 = 73	CES82 = 92
CES08 = 40	CES33 = 75	CES58 = 75	CES83 = 89
CES09 = 29	CES34 = 73	CES59 = 87	CES84 = 88
CES10 = 75	CES35 = 85	CES60 = 91	CES85 = 79
CES11 = 58	CES36 = 95	CES61 = 84	CES86 = 71
CES12 = 64	CES37 = 80	CES62 = 88	CES87 = 79
CES13 = 43	CES38 = 88	CES63 = 73	CES88 = 81
CES14 = 74	CES39 = 96	CES64 = 69	CES89 = 71
CES15 = 71	CES40 = 91	CES65 = 66	CES90 = 80
CES16 = 47	CES41 = 91	CES66 = 62	CES91 = 81
CES17 = 50	CES42 = 81	CES67 = 60	CES92 = 63
CES18 = 56	CES43 = 77	CES68 = 68	CES93 = 78
CES19 = 72	CES44 = 99	CES69 = 76	CES94 = 56
CES20 = 65	CES45 = 85	CES70 = 60	CES95 = 70
CES21 = 87	CES46 = 82	CES71 = 55	CES96 = 79
CES22 = 79	CES47 = 83	CES72 = 85	CES97 = 84
CES23 = 92	CES48 = 75	CES73 = 52	CES98 = 77
CES24 = 91	CES49 = 79	CES74 = 96	CES99 = 68
CES25 = 72	CES50 = 87	CES75 = 57	



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)