

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: P868082

Luminaire Tested: **MEM2-HSN-SA-90-740-U-T3-HSS**

Issue Date: 08/21/2024



**Test Information**

Test Method: LM-79-08  
Report Number: P868082  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 08/21/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: MEM2-HSN-SA-90-740-U-T3-HSS  
Description: EPIC MODERN SHORT HOUSING DISCRETE LED ARRAYS 90W 70CRI 4000K  
FIXTURE w/ TYPE III DISTRIBUTION OPTIC AND HOUSE SIDE SHIELD  
Light Source: (20) 4000K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

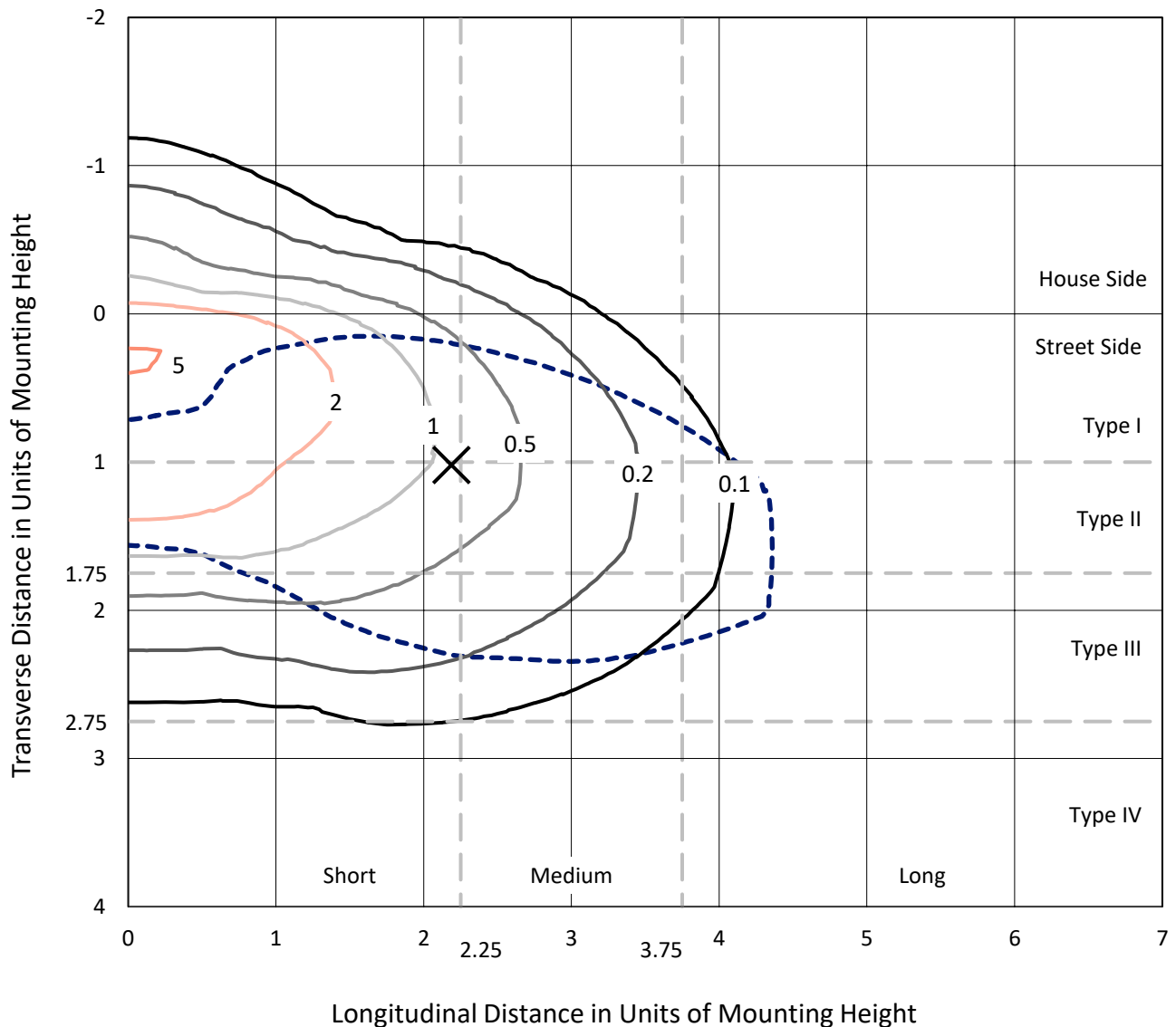
Lumens per Lamp: N/A  
Luminaire Lumens: 8970.2 lumens  
Efficiency: N/A  
Efficacy: 99.7 lumens/watt  
Luminous Opening: Rectangular (W 0.67' x L: 0.33' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B1 - U0 - G2

Input Watts (W): 90  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: 0.99  
Total Harmonic Distortion (THDi): 6.20%  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT

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### Iso-Footcandle Lines of Horizontal Illumination

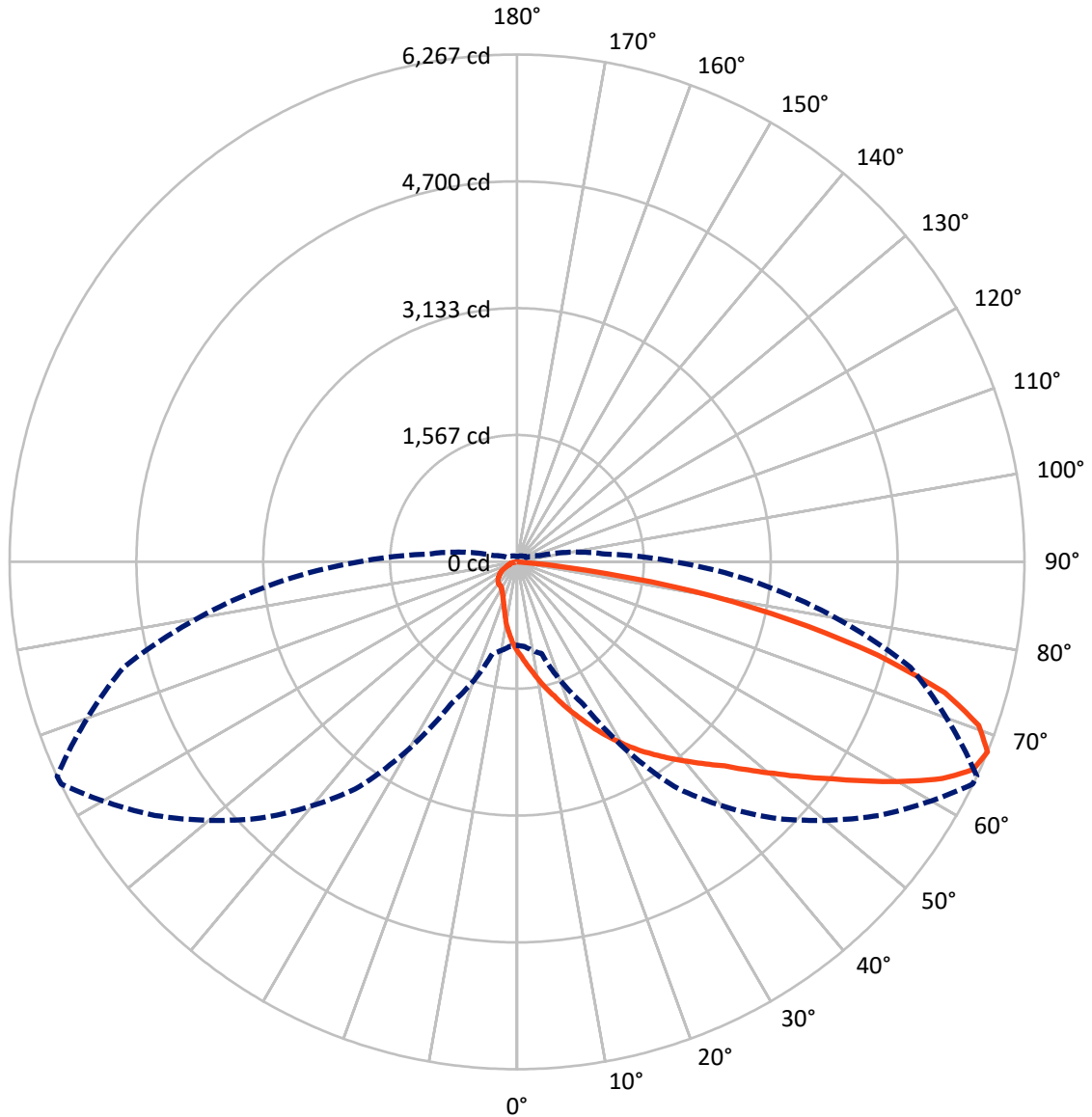
✕ Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 5.1 fc  
 Type III - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 65-Deg Lateral    - - - Horizontal Cone Through 67.5-Deg Vertical

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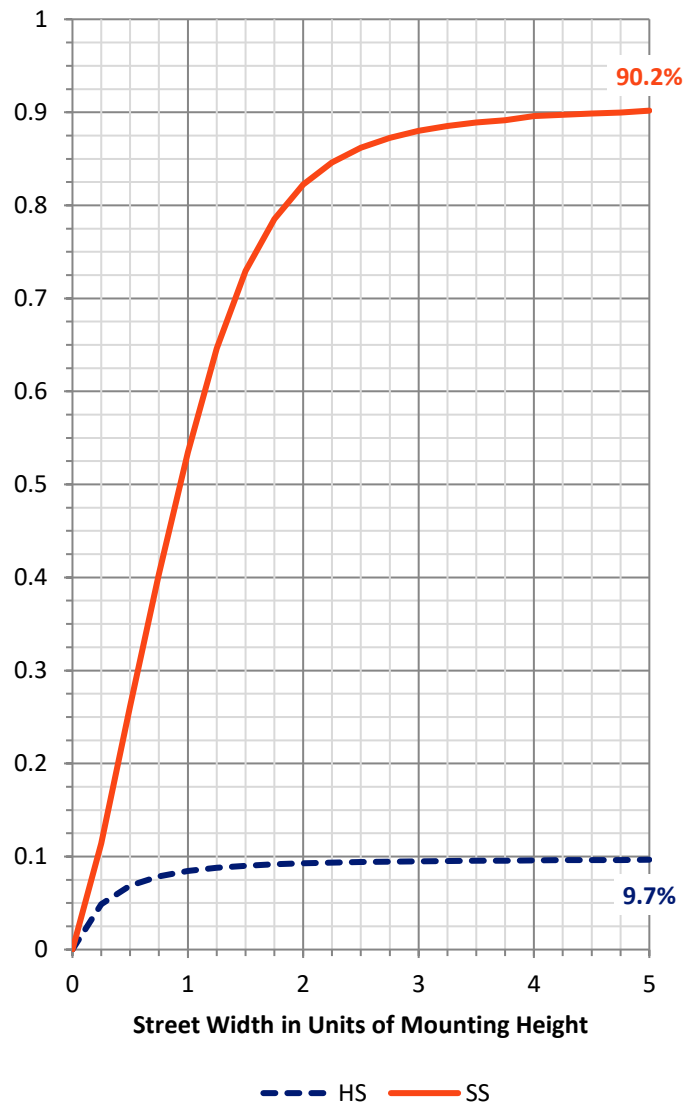
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	873.1	0.0	873.1
	% Fixture	9.7	0.0	9.7
<b>Street Side</b>	Lumens	8097.1	0.0	8097.1
	% Fixture	90.3	0.0	90.3
<b>Total</b>	Lumens	8970.2	0.0	8970.2
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	108.5	1.2
10°-20°	359.9	4.0
20°-30°	655.1	7.3
30°-40°	1013.8	11.3
40°-50°	1532.6	17.1
50°-60°	1993.8	22.2
60°-70°	1966.9	21.9
70°-80°	1197.3	13.3
80°-90°	142.3	1.6
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°	8970.2	100.0
0°-180°	8970.2	100.0



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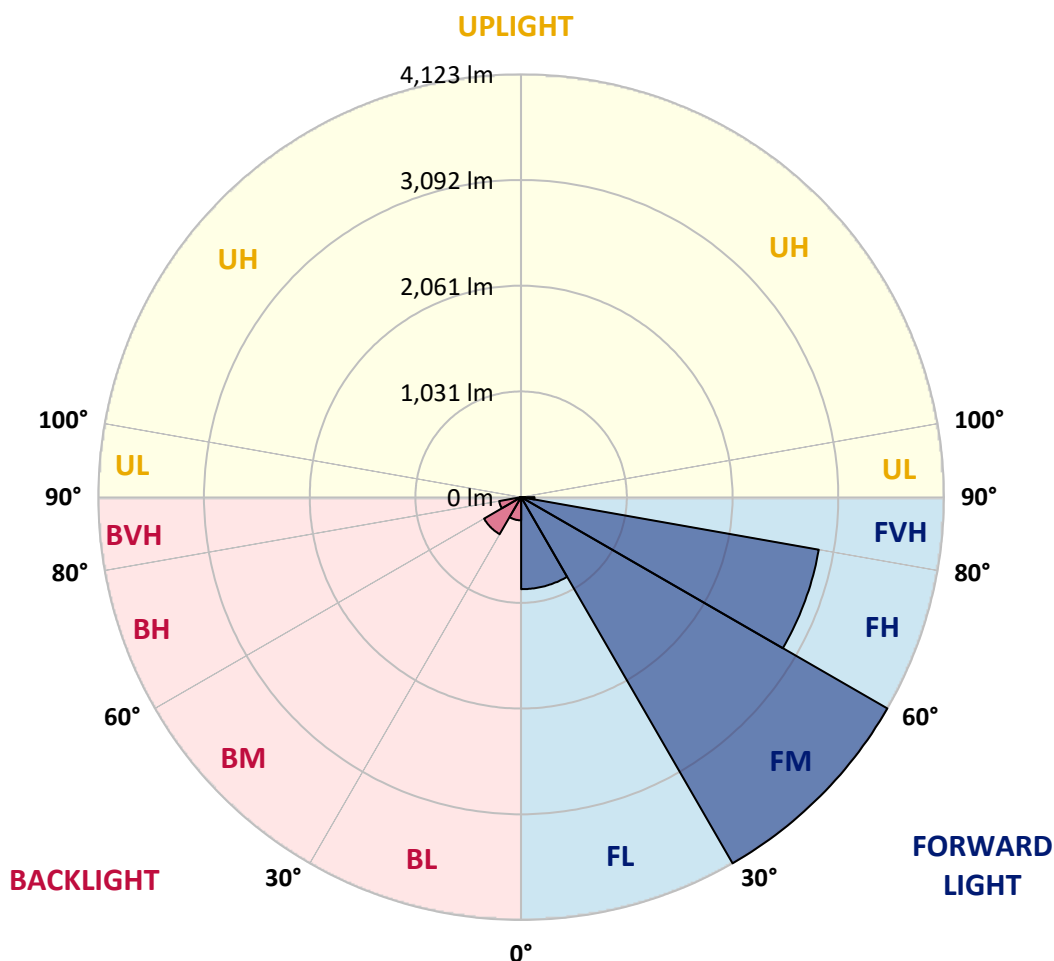
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	897.6	10.0			
FM (30°-60°)	4122.7	46.0			
FH (60°-80°)	2946.7	32.9			G2/5000
FVH (80°-90°)	130.1	1.5			G2/225
BL (0°-30°)	225.9	2.5	B1/500		
BM (30°-60°)	417.5	4.7	B1/1000		
BH (60°-80°)	217.4	2.4	B1/500		G1/500
BVH (80°-90°)	12.2	0.1			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G2**

Type III Short





REPORT NUMBER: P868082

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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	64°	65°	75°	85°
0°	1108.4	1108.4	1108.4	1108.4	1108.4	1108.4	1108.4	1108.4	1108.4	1108.4	1108.4
2.5°	1295.3	1285.1	1292.7	1274.8	1254.3	1239.0	1208.3	1182.7	1180.1	1154.5	1126.3
5°	1543.6	1510.3	1512.9	1477.0	1433.5	1387.4	1338.8	1274.8	1274.8	1213.4	1149.4
7.5°	1766.3	1761.2	1738.1	1681.8	1630.6	1559.0	1469.4	1387.4	1369.5	1274.8	1175.0
10°	1981.3	1973.7	1953.2	1909.7	1822.6	1743.3	1630.6	1507.8	1484.7	1349.0	1205.7
12.5°	2152.8	2155.4	2132.4	2096.5	2019.7	1925.0	1776.5	1623.0	1602.5	1420.7	1236.4
15°	2303.9	2301.3	2296.2	2265.5	2191.2	2104.2	1930.1	1750.9	1717.7	1497.5	1267.1
17.5°	2419.1	2414.0	2403.7	2378.1	2342.3	2257.8	2091.4	1886.6	1858.5	1587.1	1303.0
20°	2452.4	2449.8	2449.8	2467.7	2452.4	2401.2	2252.7	2027.4	1996.7	1681.8	1351.6
22.5°	2513.8	2511.2	2508.7	2526.6	2536.8	2531.7	2403.7	2170.8	2142.6	1791.9	1413.0
25°	2593.1	2588.0	2580.3	2598.3	2611.1	2641.8	2554.7	2339.7	2306.4	1919.9	1474.5
27.5°	2698.1	2703.2	2693.0	2690.4	2690.4	2708.3	2687.9	2490.7	2460.0	2042.8	1546.2
30°	2836.3	2844.0	2826.1	2813.3	2790.3	2787.7	2792.8	2659.7	2616.2	2175.9	1620.4
32.5°	2972.0	2979.7	2969.4	2951.5	2892.6	2869.6	2890.1	2803.1	2774.9	2321.8	1715.1
35°	3082.1	3100.0	3100.0	3064.2	2982.2	2969.4	3002.7	2943.8	2923.4	2493.3	1827.7
37.5°	3230.5	3240.8	3230.5	3164.0	3061.6	3077.0	3128.2	3092.3	3079.5	2677.6	1960.9
40°	3548.0	3560.8	3494.2	3335.5	3171.7	3189.6	3279.2	3258.7	3238.2	2859.4	2083.7
42.5°	3990.8	3960.1	3947.3	3594.1	3340.6	3330.4	3443.0	3414.9	3412.3	3043.7	2196.4
45°	4282.7	4292.9	4228.9	3893.6	3696.4	3504.5	3624.8	3614.5	3594.1	3230.5	2332.0
47.5°	4484.9	4461.8	4303.1	4141.9	4180.3	3732.3	3827.0	3852.6	3839.8	3443.0	2498.4
50°	4569.4	4546.3	4441.4	4333.9	4379.9	3993.4	4034.3	4118.8	4106.0	3658.0	2639.2
52.5°	4464.4	4436.2	4443.9	4472.1	4449.0	4198.2	4290.3	4423.4	4408.1	3908.9	2803.1
55°	3796.3	3870.5	4157.2	4443.9	4436.2	4354.3	4564.2	4758.8	4728.1	4170.0	2943.8
57.5°	3061.6	3102.6	3466.1	4241.7	4395.3	4484.9	4876.5	5117.2	5106.9	4431.1	3071.8
60°	2434.4	2477.9	2754.4	3821.9	4300.6	4620.6	5196.5	5513.9	5503.7	4694.8	3164.0
62.5°	1935.3	1935.3	2181.0	3217.8	4118.8	4699.9	5450.0	5913.3	5895.4	4907.3	3187.0
65°	1392.6	1410.5	1594.8	2588.0	3824.4	4679.4	5572.8	6197.4	6187.2	5027.6	3138.4
67.5°	1029.1	1049.5	1172.4	1940.4	3389.3	4474.6	5460.2	6261.4	6266.5	5030.1	2979.7
70°	803.8	808.9	901.1	1349.0	2777.5	4019.0	5037.8	6049.0	6049.0	4904.7	2744.2
72.5°	611.8	616.9	696.3	919.0	2045.3	3322.7	4405.5	5485.8	5524.2	4571.9	2396.0
75°	473.6	483.8	537.6	660.4	1282.5	2362.8	3619.6	4492.6	4597.5	3926.8	1973.7
77.5°	366.1	376.3	419.8	483.8	747.5	1456.6	2544.5	3358.5	3453.3	3092.3	1523.1
80°	294.4	299.5	327.7	363.5	453.1	750.0	1553.8	2206.6	2234.8	2101.6	1008.6
82.5°	135.7	145.9	176.6	199.7	225.3	348.1	663.0	816.6	852.4	834.5	414.7
85°	15.4	15.4	17.9	20.5	23.0	35.8	46.1	41.0	41.0	48.6	43.5
87.5°	0.0	0.0	0.0	2.6	5.1	5.1	7.7	7.7	7.7	7.7	7.7
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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**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1108.4	1108.4	1108.4	1108.4	1108.4	1108.4	1108.4	1108.4	1108.4	1108.4	1108.4
2.5°	1111.0	1093.1	1059.8	1031.6	1006.0	980.4	967.6	936.9	929.2	934.4	916.4
5°	1116.1	1080.3	1011.1	947.2	893.4	842.2	798.7	752.6	742.4	727.0	719.3
7.5°	1123.8	1070.0	962.5	862.7	780.8	706.5	652.8	616.9	588.8	581.1	578.5
10°	1134.0	1057.2	908.8	783.3	670.7	593.9	545.3	519.7	509.4	501.7	504.3
12.5°	1141.7	1044.4	857.6	693.7	583.6	514.5	491.5	471.0	465.9	463.3	463.3
15°	1151.9	1031.6	796.1	614.4	509.4	468.5	445.4	437.7	437.7	435.2	435.2
17.5°	1164.7	1021.4	744.9	552.9	465.9	427.5	417.3	407.0	407.0	407.0	404.5
20°	1190.3	1016.3	698.8	501.7	427.5	401.9	386.5	378.9	376.3	373.7	373.7
22.5°	1215.9	1016.3	647.6	463.3	401.9	373.7	358.4	350.7	348.1	348.1	348.1
25°	1251.8	1013.7	606.7	430.1	378.9	345.6	330.2	322.5	317.4	317.4	314.9
27.5°	1292.7	1013.7	570.8	404.5	353.3	320.0	302.1	294.4	286.7	286.7	284.1
30°	1333.7	1018.8	540.1	384.0	327.7	296.9	273.9	263.7	258.5	256.0	256.0
32.5°	1387.4	1034.2	519.7	368.6	304.6	273.9	250.9	240.6	235.5	232.9	232.9
35°	1469.4	1072.6	522.2	360.9	289.3	253.4	230.4	217.6	215.0	215.0	212.5
37.5°	1556.4	1108.4	529.9	355.8	273.9	238.1	215.0	202.2	199.7	199.7	199.7
40°	1630.6	1139.1	540.1	353.3	261.1	222.7	202.2	192.0	186.9	186.9	186.9
42.5°	1704.9	1157.1	542.7	345.6	253.4	209.9	192.0	181.8	176.6	179.2	179.2
45°	1779.1	1169.9	535.0	335.3	245.7	199.7	181.8	171.5	166.4	166.4	166.4
47.5°	1868.7	1198.0	522.2	320.0	240.6	192.0	171.5	161.3	158.7	158.7	158.7
50°	1958.3	1221.1	512.0	302.1	227.8	181.8	163.8	151.0	148.5	148.5	148.5
52.5°	2032.5	1231.3	499.2	279.0	215.0	171.5	153.6	140.8	135.7	135.7	135.7
55°	2088.8	1233.9	481.3	261.1	197.1	161.3	143.4	130.6	125.4	122.9	122.9
57.5°	2134.9	1231.3	463.3	243.2	181.8	148.5	130.6	120.3	112.6	110.1	110.1
60°	2160.5	1223.6	437.7	220.1	161.3	135.7	120.3	107.5	102.4	99.8	99.8
62.5°	2145.2	1203.1	401.9	184.3	145.9	122.9	110.1	99.8	92.2	89.6	89.6
65°	2073.5	1162.2	355.8	151.0	130.6	110.1	99.8	89.6	79.4	76.8	76.8
67.5°	1948.1	1093.1	294.4	128.0	120.3	99.8	89.6	79.4	71.7	66.6	66.6
70°	1774.0	1000.9	230.4	110.1	107.5	92.2	81.9	71.7	64.0	58.9	58.9
72.5°	1525.7	849.9	171.5	94.7	94.7	84.5	74.2	66.6	58.9	53.8	53.8
75°	1233.9	642.5	130.6	87.0	84.5	76.8	66.6	58.9	53.8	48.6	48.6
77.5°	901.1	427.5	107.5	79.4	79.4	69.1	61.4	53.8	48.6	46.1	46.1
80°	547.8	245.7	76.8	61.4	61.4	58.9	51.2	46.1	43.5	38.4	35.8
82.5°	222.7	94.7	41.0	30.7	30.7	28.2	17.9	15.4	15.4	15.4	12.8
85°	23.0	15.4	10.2	7.7	7.7	7.7	5.1	5.1	5.1	5.1	5.1
87.5°	7.7	7.7	5.1	5.1	5.1	5.1	2.6	2.6	2.6	2.6	2.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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

Report Prepared for

Cooper Lighting Solutions

Streetworks

Report Number: SP1-2407-157-5

Test Date: 08/07/2024

Luminaire Tested: MEM2-HTN-SA-30-740-U-5WQ-2

Data in this report applies to families of products including MEM2-HTN-SA-30-740-U-5WQ-2

**Test Information**

Test Method: LM-79-2019  
 Report Number: SP1-2407-157-5  
 Test Lab: COOPER LIGHTING SOLUTIONS  
 Photometer: SP1 - 76IN SPHERE  
 Measurement Geometry: 4π  
 Issue Date: 08/20/2024  
 Manufacturer: COOPER LIGHTING SOLUTIONS  
 Product Line: Streetworks  
 Catalog Number: **MEM2-HTN-SA-30-740-U-5WQ-2**  
 Description: Epic Modern Light Square 30W 5WQ Optic and Flare Trim

**Spectral Parameters**

CCT (K): 3915  
 CIE u': 0.2262  
 CIE v': 0.5044  
 Duv: 0.0010  
 CIE x: 0.3850  
 CIE y: 0.3816  
 CIE z: 0.2334  
 Peak Wavelength (nm): 449  
 Dominant Wavelength (nm): 578  
 Purity: 30.05482  
 Rf: 73.2  
 Rg: 93.9

CRI (Ra):	71.0		
R1:	67.6	R9:	-38.4
R2:	78.3	R10:	48.9
R3:	87.1	R11:	65.3
R4:	69.7	R12:	40.4
R5:	67.4	R13:	69.3
R6:	69.3	R14:	92.6
R7:	79.7	R15:	59.9
R8:	48.7		



**Test Conditions**

Stabilization Time: 21M  
 Operation Time: 1H 21M  
 Sphere Temperature (°C): 24.2

REPORT NUMBER: SP1-2407-157-5

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 4000K 4-step quadrangle

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**Photopic Flux vs. Wavelength**



**Photopic Lumens: NR**

λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)
360	0	NR	490	112	NR	620	618	NR	750	15	NR	880	0	NR
365	0	NR	495	153	NR	625	563	NR	755	13	NR	885	0	NR
370	0	NR	500	216	NR	630	510	NR	760	11	NR	890	0	NR
375	0	NR	505	291	NR	635	456	NR	765	9	NR	895	0	NR
380	0	NR	510	366	NR	640	407	NR	770	8	NR	900	0	NR
385	0	NR	515	436	NR	645	359	NR	775	7	NR	905	0	NR
390	0	NR	520	492	NR	650	316	NR	780	6	NR	910	0	NR
395	2	NR	525	536	NR	655	277	NR	785	5	NR	915	0	NR
400	4	NR	530	567	NR	660	240	NR	790	4	NR	920	0	NR
405	7	NR	535	596	NR	665	208	NR	795	4	NR	925	0	NR
410	12	NR	540	619	NR	670	179	NR	800	3	NR	930	0	NR
415	25	NR	545	644	NR	675	154	NR	805	3	NR	935	0	NR
420	51	NR	550	671	NR	680	133	NR	810	3	NR	940	0	NR
425	100	NR	555	701	NR	685	114	NR	815	2	NR	945	0	NR
430	180	NR	560	735	NR	690	98	NR	820	2	NR	950	0	NR
435	315	NR	565	768	NR	695	83	NR	825	2	NR	955	0	NR
440	514	NR	570	798	NR	700	71	NR	830	1	NR	960	0	NR
445	828	NR	575	825	NR	705	61	NR	835	1	NR	965	0	NR
450	992	NR	580	843	NR	710	52	NR	840	1	NR	970	0	NR
455	652	NR	585	848	NR	715	44	NR	845	1	NR	975	0	NR
460	382	NR	590	844	NR	720	38	NR	850	1	NR	980	0	NR
465	282	NR	595	826	NR	725	32	NR	855	1	NR	985	0	NR
470	180	NR	600	800	NR	730	28	NR	860	1	NR	990	0	NR
475	119	NR	605	762	NR	735	24	NR	865	1	NR	995	0	NR
480	101	NR	610	719	NR	740	20	NR	870	1	NR	1000	0	NR
485	98	NR	615	669	NR	745	17	NR	875	0	NR			

REPORT NUMBER: SP1-2407-157-5

**Scotopic Flux vs. Wavelength**



**Scotopic Lumens: NR**

**S/P: 1.49**

λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)
360	0	NR	490	112	NR	620	618	NR	750	15	NR	880	0	NR
365	0	NR	495	153	NR	625	563	NR	755	13	NR	885	0	NR
370	0	NR	500	216	NR	630	510	NR	760	11	NR	890	0	NR
375	0	NR	505	291	NR	635	456	NR	765	9	NR	895	0	NR
380	0	NR	510	366	NR	640	407	NR	770	8	NR	900	0	NR
385	0	NR	515	436	NR	645	359	NR	775	7	NR	905	0	NR
390	0	NR	520	492	NR	650	316	NR	780	6	NR	910	0	NR
395	2	NR	525	536	NR	655	277	NR	785	5	NR	915	0	NR
400	4	NR	530	567	NR	660	240	NR	790	4	NR	920	0	NR
405	7	NR	535	596	NR	665	208	NR	795	4	NR	925	0	NR
410	12	NR	540	619	NR	670	179	NR	800	3	NR	930	0	NR
415	25	NR	545	644	NR	675	154	NR	805	3	NR	935	0	NR
420	51	NR	550	671	NR	680	133	NR	810	3	NR	940	0	NR
425	100	NR	555	701	NR	685	114	NR	815	2	NR	945	0	NR
430	180	NR	560	735	NR	690	98	NR	820	2	NR	950	0	NR
435	315	NR	565	768	NR	695	83	NR	825	2	NR	955	0	NR
440	514	NR	570	798	NR	700	71	NR	830	1	NR	960	0	NR
445	828	NR	575	825	NR	705	61	NR	835	1	NR	965	0	NR
450	992	NR	580	843	NR	710	52	NR	840	1	NR	970	0	NR
455	652	NR	585	848	NR	715	44	NR	845	1	NR	975	0	NR
460	382	NR	590	844	NR	720	38	NR	850	1	NR	980	0	NR
465	282	NR	595	826	NR	725	32	NR	855	1	NR	985	0	NR
470	180	NR	600	800	NR	730	28	NR	860	1	NR	990	0	NR
475	119	NR	605	762	NR	735	24	NR	865	1	NR	995	0	NR
480	101	NR	610	719	NR	740	20	NR	870	1	NR	1000	0	NR
485	98	NR	615	669	NR	745	17	NR	875	0	NR			

REPORT NUMBER: SP1-2407-157-5

**Melanopic Flux vs. Wavelength**



**Melanopic Lumens: NR**

**M/P: 2.88**

λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)
360	0	NR	490	112	NR	620	618	NR	750	15	NR	880	0	NR
365	0	NR	495	153	NR	625	563	NR	755	13	NR	885	0	NR
370	0	NR	500	216	NR	630	510	NR	760	11	NR	890	0	NR
375	0	NR	505	291	NR	635	456	NR	765	9	NR	895	0	NR
380	0	NR	510	366	NR	640	407	NR	770	8	NR	900	0	NR
385	0	NR	515	436	NR	645	359	NR	775	7	NR	905	0	NR
390	0	NR	520	492	NR	650	316	NR	780	6	NR	910	0	NR
395	2	NR	525	536	NR	655	277	NR	785	5	NR	915	0	NR
400	4	NR	530	567	NR	660	240	NR	790	4	NR	920	0	NR
405	7	NR	535	596	NR	665	208	NR	795	4	NR	925	0	NR
410	12	NR	540	619	NR	670	179	NR	800	3	NR	930	0	NR
415	25	NR	545	644	NR	675	154	NR	805	3	NR	935	0	NR
420	51	NR	550	671	NR	680	133	NR	810	3	NR	940	0	NR
425	100	NR	555	701	NR	685	114	NR	815	2	NR	945	0	NR
430	180	NR	560	735	NR	690	98	NR	820	2	NR	950	0	NR
435	315	NR	565	768	NR	695	83	NR	825	2	NR	955	0	NR
440	514	NR	570	798	NR	700	71	NR	830	1	NR	960	0	NR
445	828	NR	575	825	NR	705	61	NR	835	1	NR	965	0	NR
450	992	NR	580	843	NR	710	52	NR	840	1	NR	970	0	NR
455	652	NR	585	848	NR	715	44	NR	845	1	NR	975	0	NR
460	382	NR	590	844	NR	720	38	NR	850	1	NR	980	0	NR
465	282	NR	595	826	NR	725	32	NR	855	1	NR	985	0	NR
470	180	NR	600	800	NR	730	28	NR	860	1	NR	990	0	NR
475	119	NR	605	762	NR	735	24	NR	865	1	NR	995	0	NR
480	101	NR	610	719	NR	740	20	NR	870	1	NR	1000	0	NR
485	98	NR	615	669	NR	745	17	NR	875	0	NR			

**Summary**

$R_f = 73.2$   
 $R_g = 93.9$   
 CIE  $R_a = 71.0$   
 $R_g = -38.4$



**Color Vector Graphics**



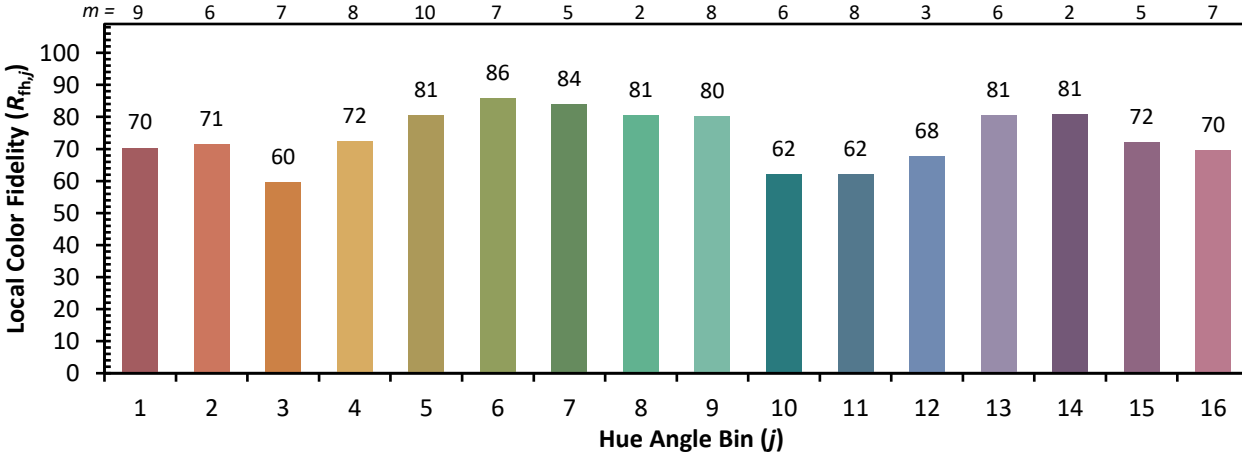
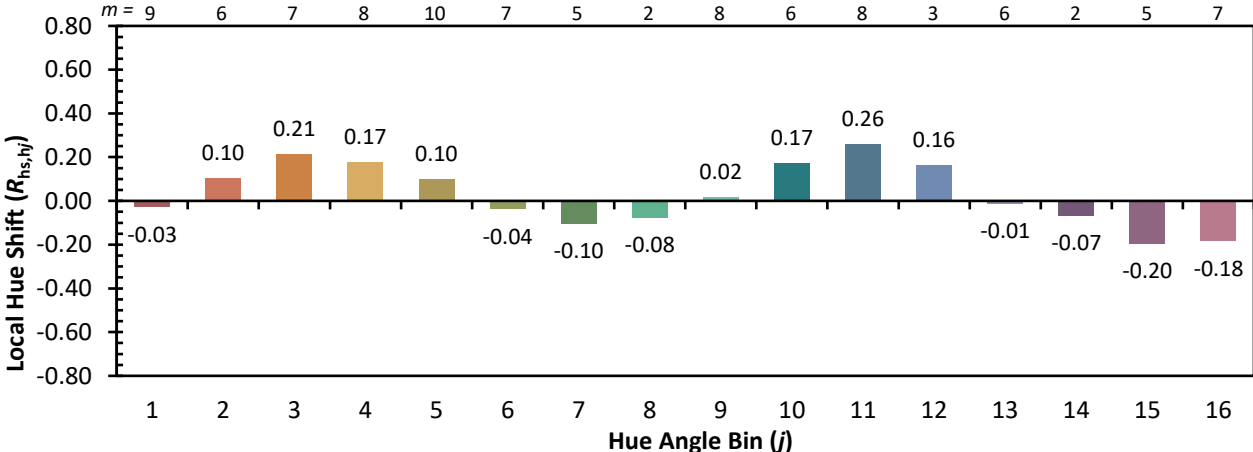
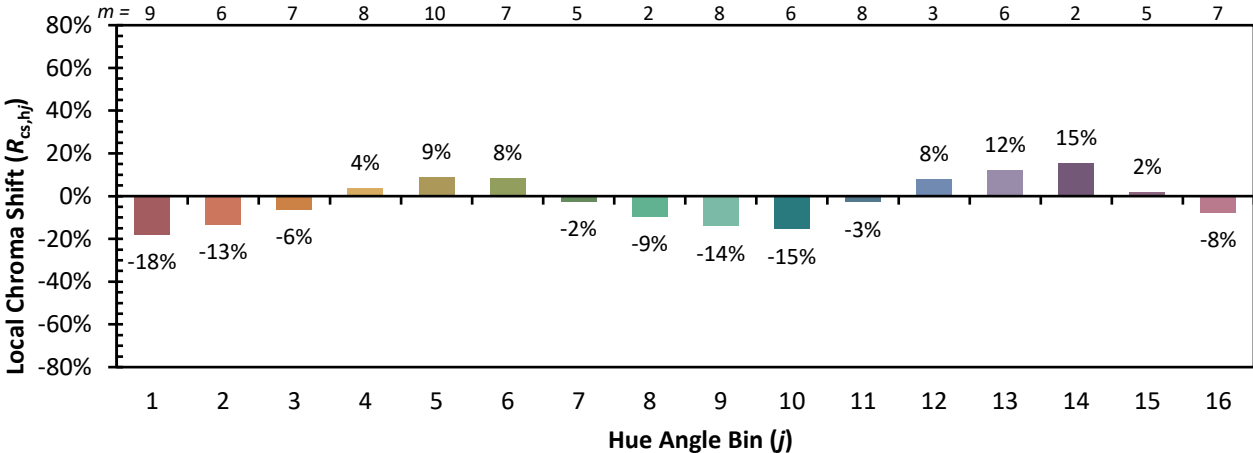


**Individual Sample Fidelity Index ( $R_{f,i}$ )**

CES01 = 85	CES26 = 61	CES51 = 88	CES76 = 50
CES02 = 61	CES27 = 88	CES52 = 87	CES77 = 69
CES03 = 30	CES28 = 81	CES53 = 77	CES78 = 53
CES04 = 70	CES29 = 65	CES54 = 84	CES79 = 81
CES05 = 47	CES30 = 81	CES55 = 83	CES80 = 78
CES06 = 50	CES31 = 69	CES56 = 73	CES81 = 77
CES07 = 40	CES32 = 60	CES57 = 72	CES82 = 91
CES08 = 39	CES33 = 76	CES58 = 73	CES83 = 89
CES09 = 29	CES34 = 70	CES59 = 85	CES84 = 86
CES10 = 74	CES35 = 83	CES60 = 89	CES85 = 77
CES11 = 57	CES36 = 91	CES61 = 81	CES86 = 71
CES12 = 63	CES37 = 79	CES62 = 85	CES87 = 76
CES13 = 42	CES38 = 92	CES63 = 72	CES88 = 80
CES14 = 74	CES39 = 96	CES64 = 64	CES89 = 70
CES15 = 71	CES40 = 91	CES65 = 61	CES90 = 79
CES16 = 46	CES41 = 93	CES66 = 57	CES91 = 74
CES17 = 49	CES42 = 80	CES67 = 54	CES92 = 57
CES18 = 56	CES43 = 76	CES68 = 63	CES93 = 74
CES19 = 72	CES44 = 99	CES69 = 73	CES94 = 51
CES20 = 65	CES45 = 85	CES70 = 55	CES95 = 65
CES21 = 86	CES46 = 82	CES71 = 48	CES96 = 76
CES22 = 78	CES47 = 86	CES72 = 83	CES97 = 84
CES23 = 92	CES48 = 77	CES73 = 45	CES98 = 75
CES24 = 91	CES49 = 80	CES74 = 93	CES99 = 62
CES25 = 72	CES50 = 88	CES75 = 51	



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)