

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: INVUE

Report Number: P868763

Luminaire Tested: **EMM2-HSN-SA2B-722-U-T1**

Issue Date: 08/22/2024



**Test Information**

Test Method: LM-79-08  
Report Number: P868763  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 08/22/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: EMM2-HSN-SA2B-722-U-T1  
Description: EPIC MODERN SHORT HOUSING DISCRETE LED ARRAYS 100W 70CRI 2200K  
FIXTURE w/ TYPE 1 DISTRIBUTION OPTIC  
Light Source: (20) 2200K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

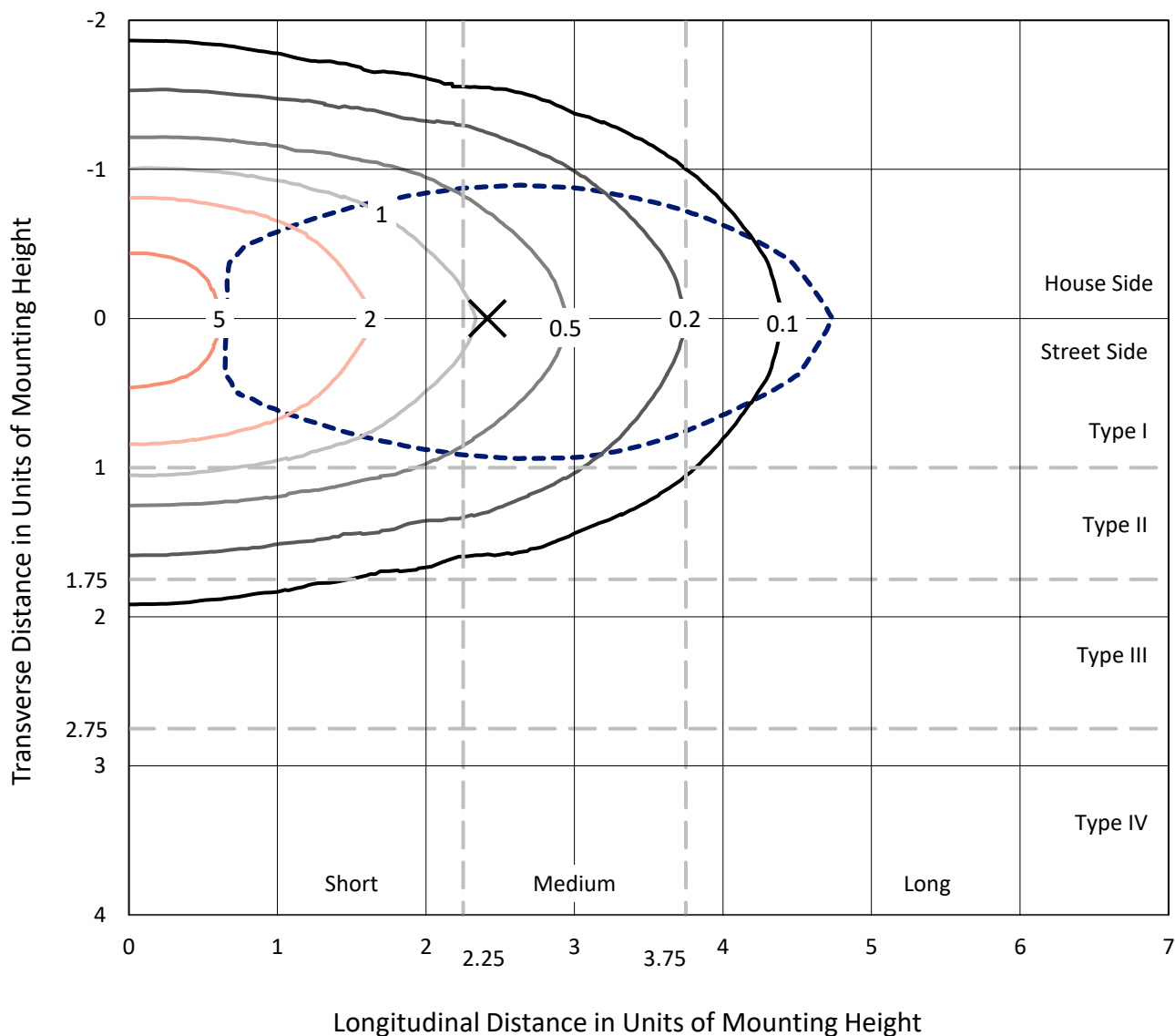
Lumens per Lamp: N/A  
Luminaire Lumens: 11470.2 lumens  
Efficiency: N/A  
Efficacy: 127.4 lumens/watt  
Luminous Opening: Rectangular (W 0.67' x L: 0.33' x H: 0')  
IES Classification: Type I - Short  
BUG Rating: B3 - U0 - G3

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

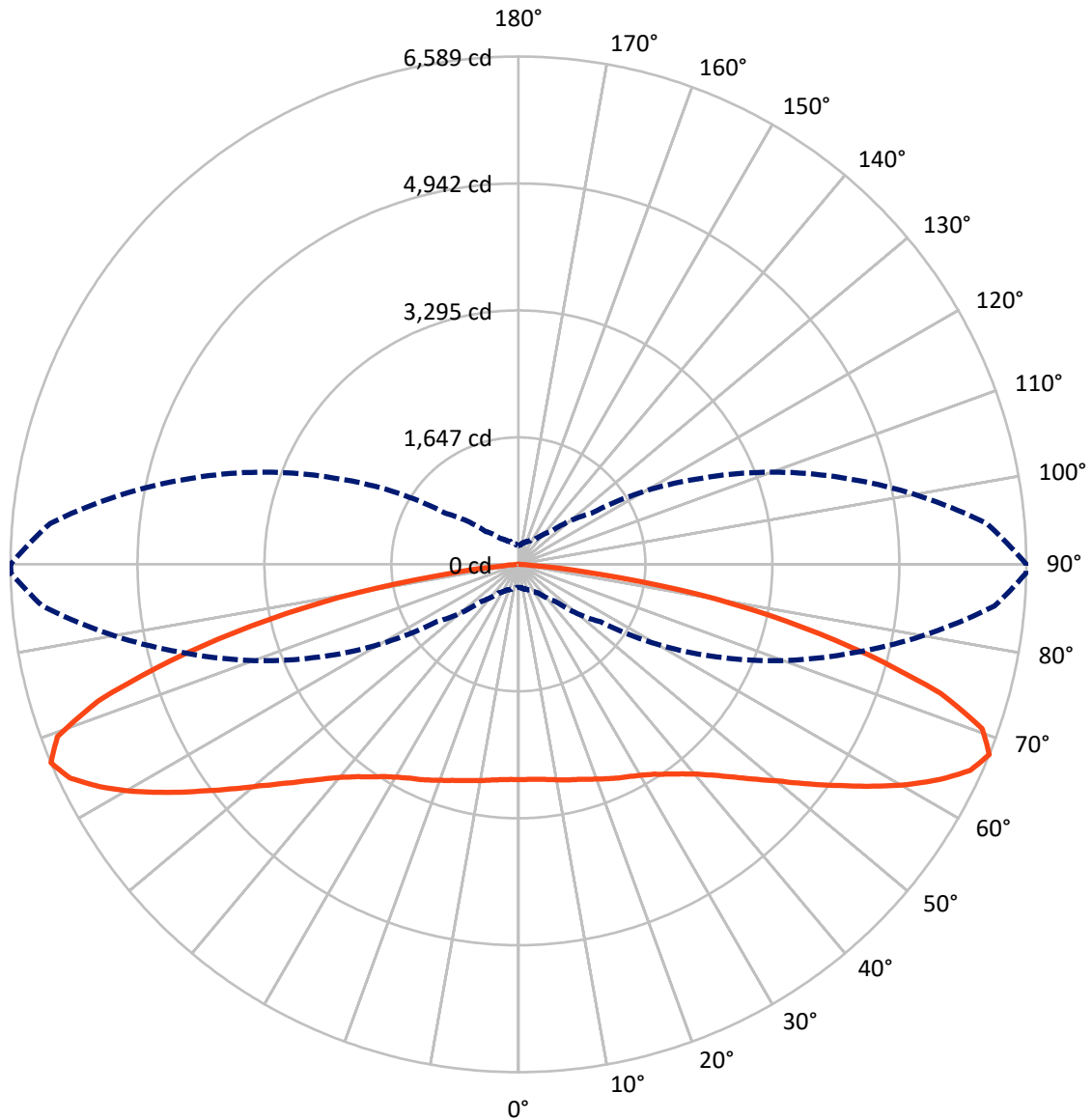
× Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 7 fc  
 Type I - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 90-Deg Lateral      - - - Horizontal Cone Through 67.5-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	5633.3	0.0	5633.3
	% Fixture	49.1	0.0	49.1
<b>Street Side</b>	Lumens	5837.0	0.0	5837.0
	% Fixture	50.9	0.0	50.9
<b>Total</b>	Lumens	11470.2	0.0	11470.2
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	267.8	2.3
10°-20°	804.9	7.0
20°-30°	1332.1	11.6
30°-40°	1766.3	15.4
40°-50°	1991.5	17.4
50°-60°	2041.5	17.8
60°-70°	1928.2	16.8
70°-80°	1183.2	10.3
80°-90°	154.8	1.3
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°	11470.2	100.0
0°-180°	11470.2	100.0

**Coefficient of Utilization**



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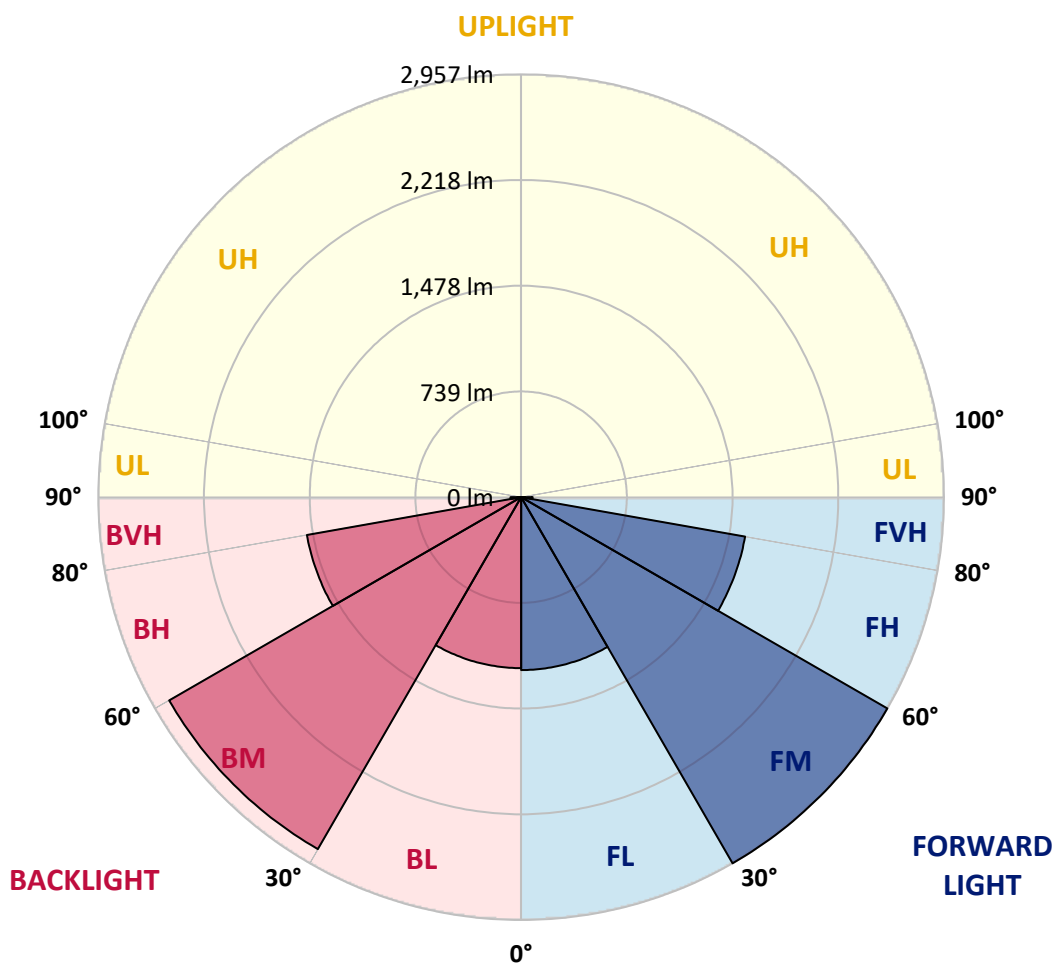
CATALOG NUMBER: EMM2-HSN-SA2B-722-U-T1

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1209.3	10.5			
FM (30°-60°)	2956.9	25.8			
FH (60°-80°)	1590.2	13.9			G1/1800
FVH (80°-90°)	80.6	0.7			G1/100
BL (0°-30°)	1195.5	10.4	B3/2500		
BM (30°-60°)	2842.4	24.8	B3/5000		
BH (60°-80°)	1521.2	13.3	B3/2500		G3/2500
BVH (80°-90°)	74.2	0.6			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G3**

Type I Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	89°
0°	2794.7	2794.7	2794.7	2794.7	2794.7	2794.7	2794.7	2794.7	2794.7	2794.7	2794.7
2.5°	2805.7	2805.7	2799.1	2788.1	2785.9	2788.1	2801.3	2794.7	2794.7	2796.9	2794.7
5°	2805.7	2805.7	2801.3	2790.3	2790.3	2790.3	2805.7	2799.1	2801.3	2803.5	2803.5
7.5°	2810.1	2810.1	2805.7	2796.9	2796.9	2796.9	2818.9	2814.5	2814.5	2821.1	2816.7
10°	2821.1	2816.7	2812.3	2814.5	2807.9	2818.9	2829.9	2832.1	2840.9	2845.4	2843.1
12.5°	2821.1	2816.7	2805.7	2818.9	2818.9	2834.3	2849.8	2858.6	2869.6	2869.6	2869.6
15°	2807.9	2803.5	2794.7	2816.7	2825.5	2845.4	2867.4	2880.6	2900.4	2900.4	2898.2
17.5°	2792.5	2785.9	2781.5	2814.5	2834.3	2860.8	2893.8	2911.4	2933.4	2935.6	2931.2
20°	2763.9	2761.7	2763.9	2807.9	2843.1	2880.6	2920.2	2944.5	2973.1	2981.9	2975.3
22.5°	2733.0	2733.0	2741.8	2801.3	2856.4	2907.0	2959.9	2990.7	3019.3	3028.1	3019.3
25°	2691.2	2691.2	2708.8	2779.3	2860.8	2935.6	2997.3	3039.2	3065.6	3074.4	3070.0
27.5°	2627.3	2627.3	2647.1	2735.2	2847.6	2957.7	3036.9	3085.4	3114.0	3122.8	3118.4
30°	2537.0	2532.6	2559.1	2669.2	2823.3	2981.9	3083.2	3133.8	3171.3	3177.9	3171.3
32.5°	2393.9	2400.5	2440.1	2578.9	2783.7	2997.3	3138.3	3197.7	3239.6	3252.8	3248.4
35°	2219.9	2230.9	2286.0	2464.4	2708.8	2995.1	3195.5	3268.2	3323.2	3340.9	3338.7
37.5°	2012.9	2028.3	2096.6	2305.8	2596.5	2962.1	3248.4	3347.5	3420.1	3442.2	3446.6
40°	1786.1	1801.5	1889.6	2120.8	2444.5	2885.0	3279.2	3437.8	3534.7	3578.7	3585.3
42.5°	1546.0	1572.4	1678.1	1902.8	2261.7	2761.7	3279.2	3525.9	3644.8	3726.3	3732.9
45°	1314.8	1336.8	1464.5	1684.7	2065.7	2603.1	3241.8	3613.9	3794.5	3935.5	3931.1
47.5°	1114.4	1121.0	1237.7	1460.1	1847.7	2422.5	3164.7	3693.2	3953.1	4140.3	4179.9
50°	907.3	922.8	1021.9	1242.1	1625.3	2224.3	3034.7	3743.9	4116.1	4400.2	4450.8
52.5°	762.0	764.2	839.1	1041.7	1394.0	1984.3	2878.4	3757.1	4272.4	4682.1	4743.7
55°	621.0	632.1	695.9	847.9	1171.6	1748.6	2675.8	3737.3	4415.6	4955.1	5069.7
57.5°	533.0	535.2	581.4	702.5	988.8	1497.6	2451.1	3671.2	4534.5	5256.9	5402.2
60°	458.1	458.1	493.3	585.8	799.4	1253.1	2186.9	3554.5	4600.6	5580.6	5792.0
62.5°	398.6	400.8	431.6	499.9	665.1	1035.1	1896.2	3371.7	4624.8	5893.3	6135.6
65°	361.2	363.4	381.0	427.2	548.4	841.3	1598.9	3149.3	4591.8	6126.8	6441.7
67.5°	299.5	301.7	332.5	367.8	455.9	676.1	1299.3	2840.9	4457.4	6199.4	6584.8
70°	229.0	235.6	277.5	314.9	378.8	539.6	997.6	2433.5	4135.9	5952.8	6349.2
72.5°	191.6	193.8	224.6	266.5	317.1	422.8	757.6	1916.0	3647.0	5316.3	5756.8
75°	167.4	169.6	187.2	224.6	264.3	339.2	526.3	1323.6	2909.2	4298.9	4701.9
77.5°	152.0	154.2	158.6	189.4	222.4	262.1	372.2	786.2	2052.5	3285.8	3497.2
80°	145.4	145.4	134.3	156.4	182.8	204.8	248.9	451.5	1317.0	2215.5	2385.1
82.5°	103.5	101.3	92.5	96.9	112.3	112.3	127.7	187.2	504.3	936.0	1015.3
85°	6.6	6.6	11.0	13.2	19.8	26.4	33.0	44.0	127.7	174.0	180.6
87.5°	2.2	2.2	2.2	2.2	2.2	4.4	4.4	4.4	6.6	8.8	8.8
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°	2794.7	2794.7	2794.7	2794.7	2794.7	2794.7	2794.7	2794.7	2794.7	2794.7	2794.7
2.5°	2792.5	2794.7	2794.7	2799.1	2803.5	2801.3	2799.1	2803.5	2796.9	2783.7	2781.5
5°	2801.3	2801.3	2799.1	2803.5	2807.9	2803.5	2799.1	2799.1	2794.7	2781.5	2779.3
7.5°	2818.9	2816.7	2816.7	2816.7	2816.7	2810.1	2803.5	2799.1	2792.5	2779.3	2772.7
10°	2843.1	2840.9	2838.7	2836.5	2825.5	2818.9	2807.9	2801.3	2792.5	2777.1	2772.7
12.5°	2869.6	2865.2	2860.8	2863.0	2840.9	2821.1	2810.1	2794.7	2788.1	2752.9	2746.2
15°	2896.0	2889.4	2887.2	2878.4	2856.4	2827.7	2805.7	2783.7	2761.7	2728.6	2717.6
17.5°	2931.2	2926.8	2913.6	2904.8	2874.0	2834.3	2801.3	2770.5	2741.8	2702.2	2695.6
20°	2973.1	2968.7	2955.5	2937.8	2898.2	2849.8	2803.5	2755.1	2719.8	2673.6	2662.6
22.5°	3019.3	3012.7	3001.7	2981.9	2931.2	2874.0	2810.1	2746.2	2693.4	2640.5	2633.9
25°	3067.8	3063.4	3052.4	3023.7	2968.7	2898.2	2810.1	2715.4	2649.3	2603.1	2583.3
27.5°	3114.0	3111.8	3098.6	3065.6	3008.3	2915.8	2790.3	2664.8	2576.7	2515.0	2501.8
30°	3173.5	3169.1	3153.7	3116.2	3052.4	2926.8	2750.7	2578.9	2468.8	2400.5	2380.7
32.5°	3246.2	3241.8	3219.7	3173.5	3105.2	2929.0	2693.4	2468.8	2323.4	2250.7	2226.5
35°	3343.1	3334.3	3305.6	3250.6	3155.9	2907.0	2592.1	2327.8	2149.4	2054.7	2021.7
37.5°	3448.8	3437.8	3400.3	3332.1	3191.1	2847.6	2448.9	2138.4	1935.8	1823.5	1799.3
40°	3578.7	3563.3	3506.0	3411.3	3204.3	2744.0	2288.2	1944.6	1728.8	1605.5	1576.8
42.5°	3741.7	3715.3	3622.8	3499.4	3177.9	2603.1	2096.6	1744.2	1497.6	1383.0	1376.4
45°	3937.7	3895.8	3757.1	3585.3	3120.6	2426.9	1894.0	1519.6	1283.9	1171.6	1143.0
47.5°	4168.9	4118.3	3913.5	3651.4	3008.3	2246.3	1675.9	1301.5	1085.7	971.2	949.2
50°	4424.4	4375.9	4078.6	3688.8	2887.2	2034.9	1462.3	1107.7	891.9	797.2	797.2
52.5°	4734.9	4624.8	4237.2	3693.2	2702.2	1801.5	1257.5	918.4	748.8	665.1	647.5
55°	5065.3	4935.3	4380.3	3653.6	2510.6	1587.8	1037.3	764.2	614.4	555.0	539.6
57.5°	5433.0	5234.8	4483.8	3574.3	2268.4	1354.4	865.5	629.9	517.5	469.1	462.5
60°	5803.0	5547.6	4545.5	3440.0	2010.7	1138.6	720.1	526.3	444.9	409.6	403.0
62.5°	6146.6	5803.0	4549.9	3244.0	1759.6	949.2	590.2	453.7	394.2	367.8	367.8
65°	6443.9	6016.6	4475.0	2992.9	1440.3	762.0	486.7	383.2	343.6	314.9	308.3
67.5°	6589.2	6098.1	4342.9	2649.3	1154.0	603.4	409.6	332.5	295.1	251.1	246.7
70°	6384.4	5862.5	4003.8	2208.9	891.9	480.1	341.4	284.1	246.7	209.2	204.8
72.5°	5730.3	5234.8	3455.4	1711.2	671.7	387.6	284.1	242.3	202.6	182.8	178.4
75°	4688.7	4353.9	2730.8	1178.2	469.1	303.9	237.8	204.8	171.8	163.0	160.8
77.5°	3558.9	3237.4	1995.3	737.8	321.5	237.8	202.6	174.0	149.8	156.4	152.0
80°	2376.3	2228.7	1325.8	418.4	215.8	174.0	154.2	127.7	114.5	132.1	127.7
82.5°	1079.1	1021.9	623.2	182.8	96.9	74.9	52.9	39.6	30.8	28.6	33.0
85°	180.6	158.6	44.0	19.8	11.0	6.6	4.4	4.4	2.2	2.2	2.2
87.5°	8.8	6.6	6.6	4.4	2.2	2.2	2.2	2.2	2.2	0.0	0.0
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: SP1-2407-157-2

Test Date: 08/07/2024

Luminaire Tested: MEM2-HTN-SA-40-722-U-5WQ-2

Data in this report applies to families of products including MEM2-HTN-SA-40-722-U-5WQ-2

**Test Information**

Test Method: LM-79-2019  
 Report Number: SP1-2407-157-2  
 Test Lab: COOPER LIGHTING SOLUTIONS  
 Photometer: SP1 - 76IN SPHERE  
 Measurement Geometry:  $4\pi$   
 Issue Date: 08/20/2024  
 Manufacturer: COOPER LIGHTING SOLUTIONS  
 Product Line: Streetworks  
 Catalog Number: **MEM2-HTN-SA-40-722-U-5WQ-2**  
 Description: Epic Modern Light Square 40W 5WQ Optic and Flare Trim

**Spectral Parameters**

CCT (K): 2253  
 CIE u': 0.2868  
 CIE v': 0.5332  
 Duv: -0.0014  
 CIE x: 0.4974  
 CIE y: 0.4110  
 CIE z: 0.0915  
 Peak Wavelength (nm): 603  
 Dominant Wavelength (nm): 587  
 Purity: 72.69432  
 Rf: 76.9  
 Rg: 92.7

CRI (Ra):	70.6		
R1:	68.4	R9:	-36.0
R2:	88.7	R10:	78.2
R3:	85.4	R11:	61.0
R4:	63.5	R12:	74.2
R5:	69.0	R13:	72.8
R6:	88.9	R14:	92.2
R7:	68.5	R15:	58.0
R8:	32.0		



**Test Conditions**

Stabilization Time: 29M  
 Operation Time: 1H 29M  
 Sphere Temperature (°C): 24.1

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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 2200K 4-step quadrangle

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**Photopic Flux vs. Wavelength**



**Photopic Lumens: NR**

$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)
360	0	NR	490	117	NR	620	896	NR	750	20	NR	880	0	NR
365	0	NR	495	137	NR	625	838	NR	755	17	NR	885	0	NR
370	0	NR	500	160	NR	630	774	NR	760	14	NR	890	0	NR
375	0	NR	505	183	NR	635	704	NR	765	12	NR	895	0	NR
380	0	NR	510	202	NR	640	635	NR	770	10	NR	900	0	NR
385	0	NR	515	219	NR	645	565	NR	775	9	NR	905	0	NR
390	0	NR	520	235	NR	650	501	NR	780	7	NR	910	0	NR
395	0	NR	525	249	NR	655	440	NR	785	6	NR	915	0	NR
400	0	NR	530	263	NR	660	383	NR	790	5	NR	920	0	NR
405	0	NR	535	281	NR	665	332	NR	795	5	NR	925	0	NR
410	1	NR	540	302	NR	670	286	NR	800	4	NR	930	0	NR
415	3	NR	545	331	NR	675	245	NR	805	3	NR	935	0	NR
420	6	NR	550	366	NR	680	210	NR	810	3	NR	940	0	NR
425	12	NR	555	411	NR	685	178	NR	815	3	NR	945	0	NR
430	21	NR	560	469	NR	690	152	NR	820	2	NR	950	0	NR
435	38	NR	565	536	NR	695	129	NR	825	2	NR	955	0	NR
440	66	NR	570	614	NR	700	109	NR	830	2	NR	960	0	NR
445	122	NR	575	701	NR	705	92	NR	835	1	NR	965	0	NR
450	215	NR	580	785	NR	710	77	NR	840	1	NR	970	0	NR
455	236	NR	585	863	NR	715	66	NR	845	1	NR	975	0	NR
460	170	NR	590	928	NR	720	55	NR	850	1	NR	980	0	NR
465	148	NR	595	971	NR	725	47	NR	855	1	NR	985	0	NR
470	132	NR	600	994	NR	730	40	NR	860	1	NR	990	0	NR
475	104	NR	605	996	NR	735	33	NR	865	1	NR	995	0	NR
480	97	NR	610	979	NR	740	28	NR	870	1	NR	1000	0	NR
485	105	NR	615	943	NR	745	24	NR	875	0	NR			

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**Scotopic Flux vs. Wavelength**



**Scotopic Lumens: NR**

**S/P: 0.96**

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	117	NR	620	896	NR	750	20	NR	880	0	NR
365	0	NR	495	137	NR	625	838	NR	755	17	NR	885	0	NR
370	0	NR	500	160	NR	630	774	NR	760	14	NR	890	0	NR
375	0	NR	505	183	NR	635	704	NR	765	12	NR	895	0	NR
380	0	NR	510	202	NR	640	635	NR	770	10	NR	900	0	NR
385	0	NR	515	219	NR	645	565	NR	775	9	NR	905	0	NR
390	0	NR	520	235	NR	650	501	NR	780	7	NR	910	0	NR
395	0	NR	525	249	NR	655	440	NR	785	6	NR	915	0	NR
400	0	NR	530	263	NR	660	383	NR	790	5	NR	920	0	NR
405	0	NR	535	281	NR	665	332	NR	795	5	NR	925	0	NR
410	1	NR	540	302	NR	670	286	NR	800	4	NR	930	0	NR
415	3	NR	545	331	NR	675	245	NR	805	3	NR	935	0	NR
420	6	NR	550	366	NR	680	210	NR	810	3	NR	940	0	NR
425	12	NR	555	411	NR	685	178	NR	815	3	NR	945	0	NR
430	21	NR	560	469	NR	690	152	NR	820	2	NR	950	0	NR
435	38	NR	565	536	NR	695	129	NR	825	2	NR	955	0	NR
440	66	NR	570	614	NR	700	109	NR	830	2	NR	960	0	NR
445	122	NR	575	701	NR	705	92	NR	835	1	NR	965	0	NR
450	215	NR	580	785	NR	710	77	NR	840	1	NR	970	0	NR
455	236	NR	585	863	NR	715	66	NR	845	1	NR	975	0	NR
460	170	NR	590	928	NR	720	55	NR	850	1	NR	980	0	NR
465	148	NR	595	971	NR	725	47	NR	855	1	NR	985	0	NR
470	132	NR	600	994	NR	730	40	NR	860	1	NR	990	0	NR
475	104	NR	605	996	NR	735	33	NR	865	1	NR	995	0	NR
480	97	NR	610	979	NR	740	28	NR	870	1	NR	1000	0	NR
485	105	NR	615	943	NR	745	24	NR	875	0	NR			

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Melanopic Flux vs. Wavelength



Melanopic Lumens: NR

M/P: 1.71

λ (nm)	Power W <sup>2</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>2</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>2</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>2</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>2</sup> /nm	Lumens (φ/nm)
360	0	NR	490	117	NR	620	896	NR	750	20	NR	880	0	NR
365	0	NR	495	137	NR	625	838	NR	755	17	NR	885	0	NR
370	0	NR	500	160	NR	630	774	NR	760	14	NR	890	0	NR
375	0	NR	505	183	NR	635	704	NR	765	12	NR	895	0	NR
380	0	NR	510	202	NR	640	635	NR	770	10	NR	900	0	NR
385	0	NR	515	219	NR	645	565	NR	775	9	NR	905	0	NR
390	0	NR	520	235	NR	650	501	NR	780	7	NR	910	0	NR
395	0	NR	525	249	NR	655	440	NR	785	6	NR	915	0	NR
400	0	NR	530	263	NR	660	383	NR	790	5	NR	920	0	NR
405	0	NR	535	281	NR	665	332	NR	795	5	NR	925	0	NR
410	1	NR	540	302	NR	670	286	NR	800	4	NR	930	0	NR
415	3	NR	545	331	NR	675	245	NR	805	3	NR	935	0	NR
420	6	NR	550	366	NR	680	210	NR	810	3	NR	940	0	NR
425	12	NR	555	411	NR	685	178	NR	815	3	NR	945	0	NR
430	21	NR	560	469	NR	690	152	NR	820	2	NR	950	0	NR
435	38	NR	565	536	NR	695	129	NR	825	2	NR	955	0	NR
440	66	NR	570	614	NR	700	109	NR	830	2	NR	960	0	NR
445	122	NR	575	701	NR	705	92	NR	835	1	NR	965	0	NR
450	215	NR	580	785	NR	710	77	NR	840	1	NR	970	0	NR
455	236	NR	585	863	NR	715	66	NR	845	1	NR	975	0	NR
460	170	NR	590	928	NR	720	55	NR	850	1	NR	980	0	NR
465	148	NR	595	971	NR	725	47	NR	855	1	NR	985	0	NR
470	132	NR	600	994	NR	730	40	NR	860	1	NR	990	0	NR
475	104	NR	605	996	NR	735	33	NR	865	1	NR	995	0	NR
480	97	NR	610	979	NR	740	28	NR	870	1	NR	1000	0	NR
485	105	NR	615	943	NR	745	24	NR	875	0	NR			

**Summary**

$R_f = 76.9$   
 $R_g = 92.7$   
 CIE  $R_a = 70.6$   
 $R_9 = -36.0$



**Color Vector Graphics**





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

CES01 = 87	CES26 = 76	CES51 = 88	CES76 = 78
CES02 = 65	CES27 = 94	CES52 = 85	CES77 = 75
CES03 = 32	CES28 = 93	CES53 = 80	CES78 = 79
CES04 = 72	CES29 = 81	CES54 = 86	CES79 = 82
CES05 = 51	CES30 = 91	CES55 = 83	CES80 = 81
CES06 = 52	CES31 = 83	CES56 = 77	CES81 = 51
CES07 = 44	CES32 = 75	CES57 = 75	CES82 = 92
CES08 = 42	CES33 = 88	CES58 = 76	CES83 = 88
CES09 = 29	CES34 = 88	CES59 = 84	CES84 = 90
CES10 = 79	CES35 = 94	CES60 = 91	CES85 = 65
CES11 = 62	CES36 = 90	CES61 = 82	CES86 = 48
CES12 = 68	CES37 = 97	CES62 = 91	CES87 = 76
CES13 = 45	CES38 = 98	CES63 = 86	CES88 = 78
CES14 = 75	CES39 = 97	CES64 = 70	CES89 = 61
CES15 = 72	CES40 = 94	CES65 = 71	CES90 = 80
CES16 = 48	CES41 = 95	CES66 = 71	CES91 = 80
CES17 = 51	CES42 = 89	CES67 = 70	CES92 = 51
CES18 = 57	CES43 = 80	CES68 = 74	CES93 = 68
CES19 = 74	CES44 = 99	CES69 = 84	CES94 = 44
CES20 = 68	CES45 = 83	CES70 = 72	CES95 = 66
CES21 = 88	CES46 = 81	CES71 = 75	CES96 = 75
CES22 = 81	CES47 = 88	CES72 = 89	CES97 = 76
CES23 = 92	CES48 = 73	CES73 = 68	CES98 = 72
CES24 = 92	CES49 = 82	CES74 = 85	CES99 = 63
CES25 = 73	CES50 = 87	CES75 = 80	



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)