

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: P871289

Luminaire Tested: **EMM2-HSN-SA2B-840-U-T4W-HSS**

Issue Date: 09/05/2024



**Test Information**

Test Method: LM-79-08  
Report Number: P871289  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 09/05/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: EMM2-HSN-SA2B-840-U-T4W-HSS  
Description: EPIC MODERN SHORT HOUSING DISCRETE LED ARRAYS 100W 80CRI 4000K  
FIXTURE w/ TYPE IV WIDE DISTRIBUTION OPTIC AND HOUSE SIDE SHIELD  
Light Source: (20) 4000K CCT, 80 CRI LEDs  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

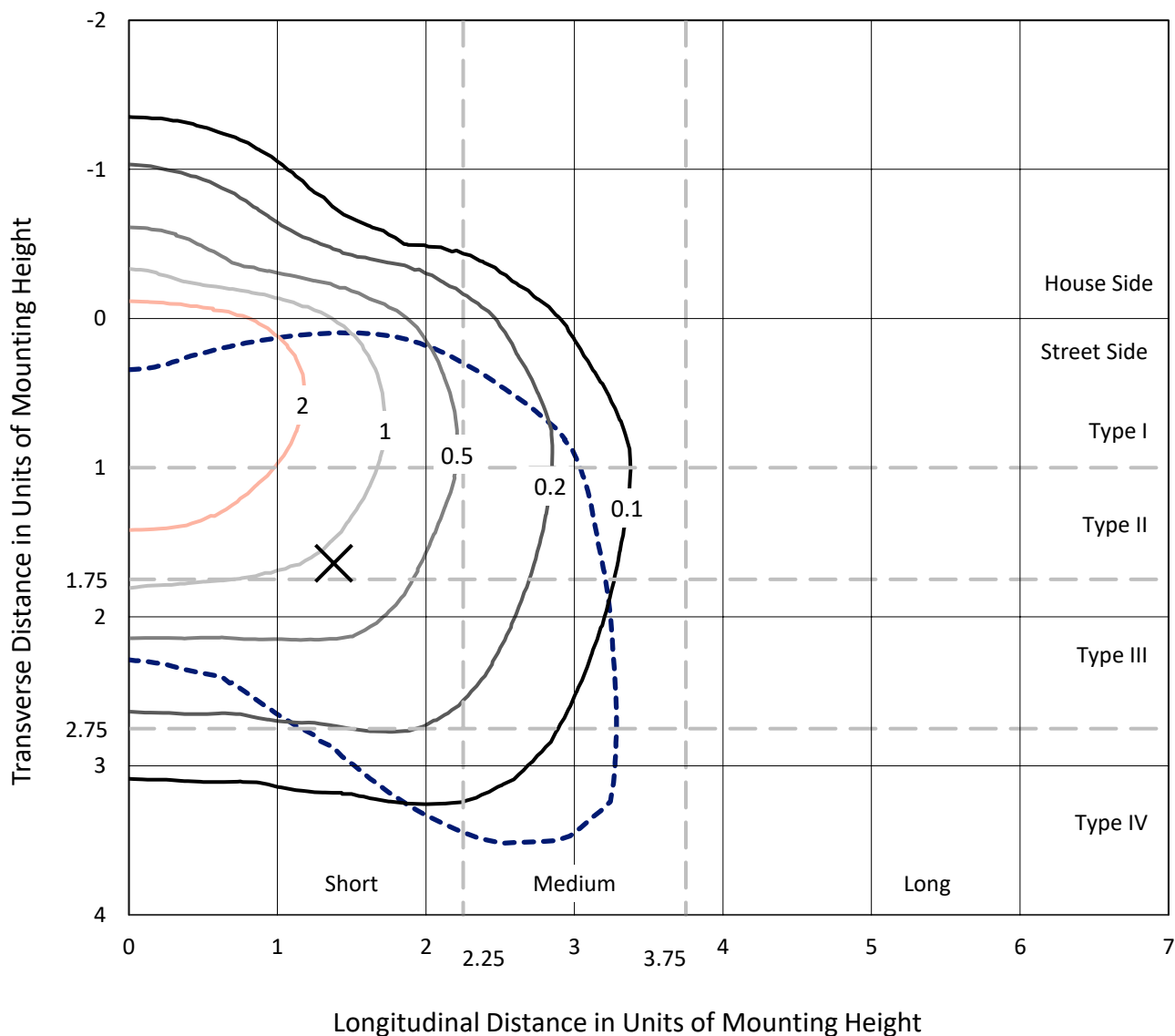
Lumens per Lamp: N/A  
Luminaire Lumens: 8623.2 lumens  
Efficiency: N/A  
Efficacy: 95.8 lumens/watt  
Luminous Opening: Rectangular (W 0.67' x L: 0.33' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B1 - U0 - G2

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

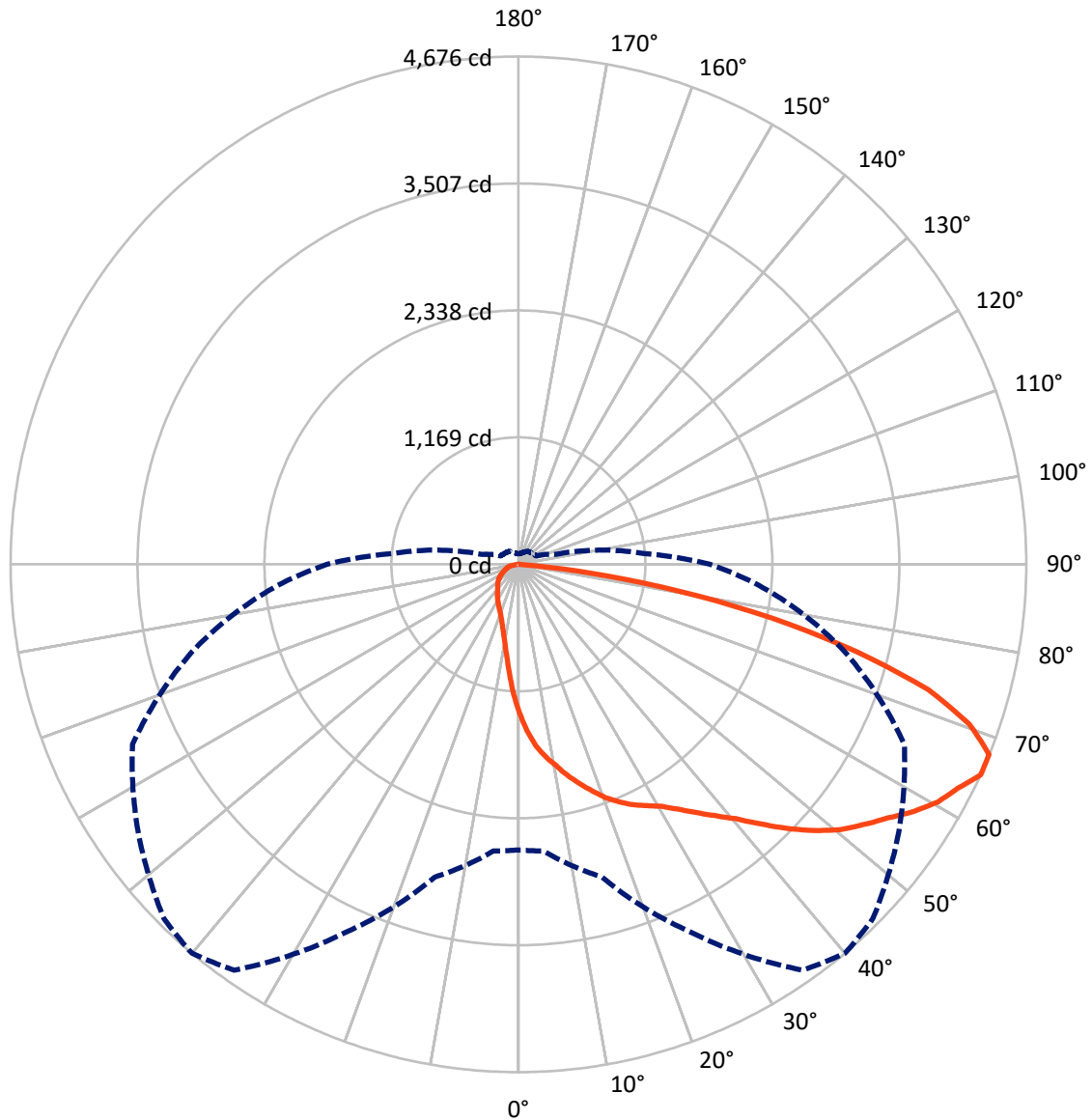
✕ Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 5 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral      - - - Horizontal Cone Through 65-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1032.4	0.0	1032.4
	% Fixture	12.0	0.0	12.0
<b>Street Side</b>	Lumens	7590.8	0.0	7590.8
	% Fixture	88.0	0.0	88.0
<b>Total</b>	Lumens	8623.2	0.0	8623.2
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	128.3	1.5
10°-20°	385.8	4.5
20°-30°	663.7	7.7
30°-40°	1003.3	11.6
40°-50°	1467.0	17.0
50°-60°	1873.7	21.7
60°-70°	1869.9	21.7
70°-80°	1096.5	12.7
80°-90°	135.1	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°	8623.2	100.0
0°-180°	8623.2	100.0

**Coefficient of Utilization**



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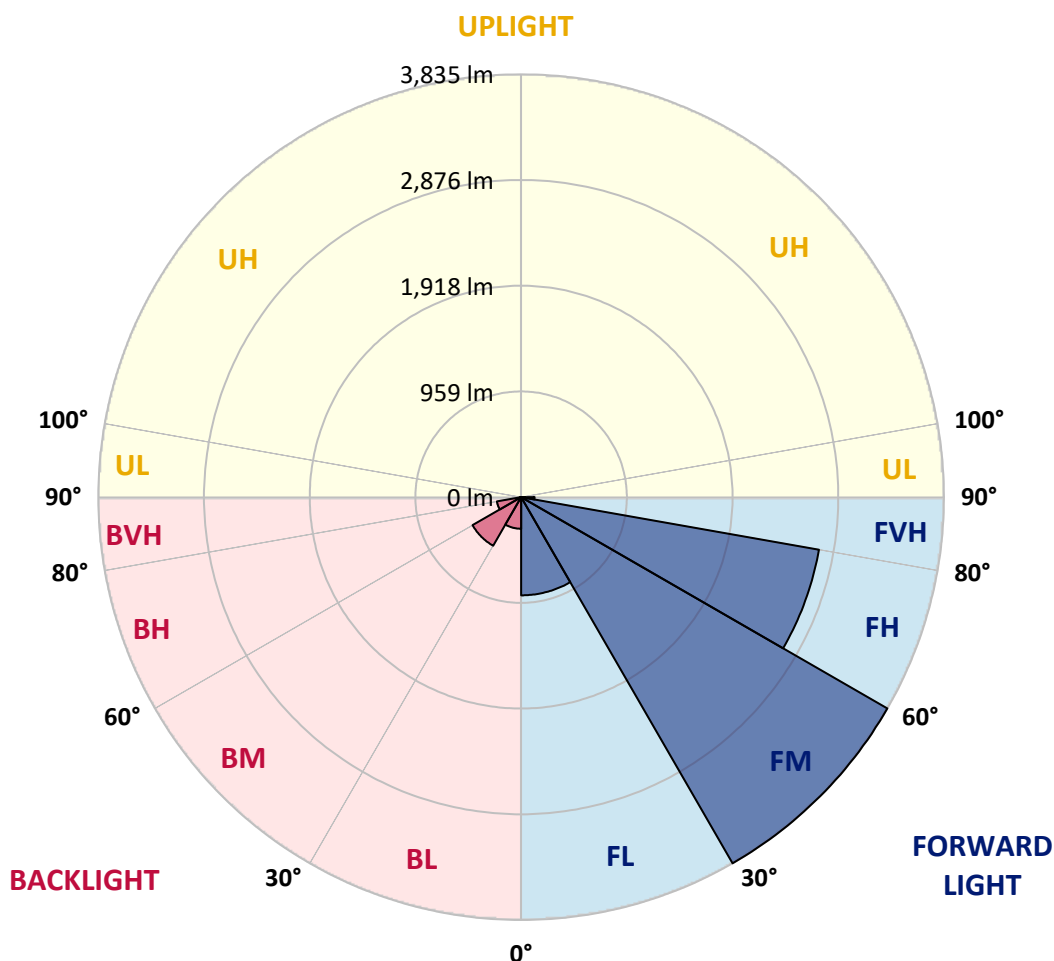
CATALOG NUMBER: EMM2-HSN-SA2B-840-U-T4W-HSS

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	890.7	10.3			
FM (30°-60°)	3835.2	44.5			
FH (60°-80°)	2742.9	31.8			G2/5000
FVH (80°-90°)	122.1	1.4			G2/225
BL (0°-30°)	287.1	3.3	B1/500		
BM (30°-60°)	508.7	5.9	B1/1000		
BH (60°-80°)	223.5	2.6	B1/500		G1/500
BVH (80°-90°)	13.0	0.2			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

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

Type IV Short





REPORT NUMBER: P871289

CATALOG NUMBER: EMM2-HSN-SA2B-840-U-T4W-HSS

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	1370.7	1370.7	1370.7	1370.7	1370.7	1370.7	1370.7	1370.7	1370.7	1370.7	1370.7
2.5°	1599.2	1591.9	1577.3	1565.2	1548.1	1533.6	1519.0	1492.2	1458.2	1429.1	1392.6
5°	1757.2	1745.0	1735.3	1720.7	1691.5	1679.4	1669.7	1613.8	1555.4	1494.7	1414.5
7.5°	1868.9	1878.7	1859.2	1837.4	1800.9	1786.3	1771.7	1715.8	1642.9	1555.4	1441.2
10°	1997.8	2000.2	1975.9	1949.2	1910.3	1881.1	1861.7	1793.6	1713.4	1616.2	1470.4
12.5°	2121.7	2121.7	2107.1	2068.2	2017.2	1990.5	1956.4	1878.7	1781.5	1667.2	1504.4
15°	2221.4	2226.2	2214.1	2184.9	2129.0	2092.5	2058.5	1968.6	1844.6	1725.6	1531.1
17.5°	2311.3	2308.8	2301.6	2274.8	2221.4	2192.2	2158.2	2058.5	1917.6	1771.7	1572.4
20°	2372.0	2372.0	2369.6	2355.0	2316.1	2294.3	2252.9	2148.4	1997.8	1839.8	1616.2
22.5°	2418.2	2415.8	2415.8	2418.2	2396.3	2374.5	2357.5	2252.9	2080.4	1898.1	1659.9
25°	2457.1	2454.7	2462.0	2466.8	2457.1	2452.2	2432.8	2352.6	2182.5	1966.2	1703.7
27.5°	2508.1	2515.4	2513.0	2513.0	2510.6	2515.4	2513.0	2444.9	2282.1	2039.1	1749.9
30°	2588.3	2600.5	2593.2	2583.5	2583.5	2585.9	2598.1	2554.3	2398.8	2129.0	1800.9
32.5°	2775.5	2763.3	2712.3	2678.3	2683.1	2685.6	2697.7	2673.4	2515.4	2231.1	1854.4
35°	2989.3	2974.8	2918.9	2841.1	2814.4	2804.6	2802.2	2787.6	2641.8	2340.4	1917.6
37.5°	3266.4	3271.3	3188.6	3076.8	2996.6	2935.9	2923.7	2892.1	2751.2	2440.1	1983.2
40°	3548.3	3528.9	3458.4	3349.0	3191.1	3079.3	3042.8	2999.1	2875.1	2544.6	2046.4
42.5°	3820.5	3784.1	3691.7	3572.6	3387.9	3266.4	3183.8	3127.9	2989.3	2658.8	2107.1
45°	4175.4	4070.9	3905.6	3798.7	3567.8	3468.1	3392.8	3268.8	3125.4	2773.0	2180.0
47.5°	4454.9	4253.1	4102.5	4056.3	3754.9	3662.6	3594.5	3422.0	3264.0	2901.9	2255.4
50°	4403.8	4279.9	4243.4	4202.1	3895.9	3840.0	3776.8	3596.9	3404.9	3038.0	2328.3
52.5°	4272.6	4287.2	4333.3	4262.9	4019.8	3980.9	3939.6	3784.1	3545.9	3149.8	2393.9
55°	4168.1	4197.2	4321.2	4299.3	4168.1	4124.3	4095.2	3968.8	3682.0	3251.8	2449.8
57.5°	3978.5	3954.2	4109.7	4362.5	4326.0	4292.0	4262.9	4163.2	3820.5	3324.7	2486.3
60°	3679.6	3589.6	3798.7	4284.7	4435.4	4440.3	4423.3	4309.0	3932.3	3324.7	2466.8
62.5°	3259.1	3174.1	3431.7	4024.7	4493.7	4539.9	4530.2	4360.1	3980.9	3251.8	2391.5
65°	2629.7	2649.1	2982.1	3730.6	4561.8	4676.0	4615.3	4277.4	3920.2	3110.9	2221.4
67.5°	2099.8	2158.2	2457.1	3349.0	4530.2	4673.6	4588.5	4044.1	3660.1	2914.0	1961.3
70°	1657.5	1696.4	1944.3	2833.8	4253.1	4403.8	4296.9	3686.9	3220.2	2610.2	1630.8
72.5°	1295.4	1331.8	1543.3	2267.5	3771.9	3946.9	3813.2	3205.6	2671.0	2214.1	1295.4
75°	984.3	1011.0	1169.0	1747.4	3003.9	3222.7	3125.4	2566.5	2085.3	1752.3	991.6
77.5°	634.3	670.8	848.2	1224.9	2121.7	2384.2	2396.3	1917.6	1499.5	1266.2	729.1
80°	420.5	435.0	544.4	797.2	1305.1	1509.3	1579.7	1295.4	957.6	806.9	525.0
82.5°	175.0	194.4	260.0	401.0	653.8	656.2	751.0	546.8	388.9	342.7	221.2
85°	4.9	9.7	7.3	19.4	17.0	26.7	31.6	43.7	31.6	34.0	34.0
87.5°	0.0	0.0	2.4	2.4	4.9	4.9	4.9	4.9	4.9	7.3	4.9
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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CATALOG NUMBER: EMM2-HSN-SA2B-840-U-T4W-HSS

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1370.7	1370.7	1370.7	1370.7	1370.7	1370.7	1370.7	1370.7	1370.7	1370.7	1370.7
2.5°	1375.6	1353.7	1310.0	1275.9	1239.5	1212.8	1188.4	1161.7	1144.7	1147.1	1130.1
5°	1375.6	1334.3	1246.8	1169.0	1098.5	1047.5	991.6	947.8	916.2	911.4	926.0
7.5°	1382.9	1314.8	1183.6	1066.9	969.7	889.5	831.2	787.4	765.6	751.0	748.6
10°	1390.2	1300.2	1125.3	977.0	855.5	768.0	717.0	668.3	644.0	641.6	634.3
12.5°	1395.0	1283.2	1071.8	887.1	760.7	678.1	627.0	588.1	568.7	568.7	566.3
15°	1412.0	1278.4	1015.9	819.0	687.8	607.6	563.8	532.2	520.1	512.8	510.4
17.5°	1426.6	1268.6	967.3	751.0	622.2	551.7	510.4	488.5	476.4	471.5	469.1
20°	1448.5	1263.8	921.1	695.1	573.6	505.5	473.9	454.5	447.2	442.3	442.3
22.5°	1470.4	1258.9	874.9	646.5	532.2	471.5	442.3	425.3	418.0	415.6	413.2
25°	1497.1	1256.5	836.0	605.2	495.8	444.8	418.0	403.4	393.7	388.9	388.9
27.5°	1523.8	1258.9	797.2	563.8	464.2	420.5	393.7	376.7	369.4	359.7	362.1
30°	1560.3	1261.4	765.6	529.8	437.5	396.1	371.8	350.0	340.3	335.4	335.4
32.5°	1596.7	1271.1	734.0	498.2	410.7	376.7	347.5	328.1	315.9	313.5	311.1
35°	1635.6	1278.4	704.8	471.5	388.9	354.8	325.7	306.2	296.5	294.1	294.1
37.5°	1679.4	1290.5	682.9	447.2	367.0	333.0	306.2	286.8	279.5	277.1	277.1
40°	1725.6	1310.0	665.9	425.3	350.0	313.5	289.2	272.2	267.3	264.9	264.9
42.5°	1771.7	1327.0	651.3	408.3	333.0	296.5	277.1	260.0	252.8	252.8	252.8
45°	1815.5	1339.1	636.8	391.3	315.9	284.4	262.5	247.9	240.6	240.6	240.6
47.5°	1854.4	1351.3	614.9	374.3	298.9	267.3	250.3	235.7	228.5	228.5	228.5
50°	1895.7	1358.6	590.6	352.4	281.9	255.2	238.2	221.2	216.3	213.9	213.9
52.5°	1929.7	1358.6	559.0	330.5	262.5	238.2	223.6	209.0	201.7	196.9	196.9
55°	1954.0	1358.6	525.0	303.8	243.0	223.6	209.0	194.4	184.7	177.4	177.4
57.5°	1968.6	1351.3	486.1	272.2	223.6	204.2	194.4	177.4	158.0	143.4	138.5
60°	1956.4	1329.4	444.8	238.2	201.7	187.1	179.8	158.0	131.2	123.9	123.9
62.5°	1905.4	1278.4	403.4	209.0	184.7	170.1	162.8	138.5	119.1	111.8	111.8
65°	1762.0	1154.4	352.4	182.3	165.3	155.5	145.8	123.9	106.9	97.2	97.2
67.5°	1553.0	996.4	294.1	160.4	148.3	141.0	133.7	111.8	94.8	85.1	85.1
70°	1258.9	804.5	250.3	141.0	131.2	126.4	119.1	102.1	82.6	75.3	75.3
72.5°	989.2	631.9	209.0	126.4	121.5	111.8	106.9	89.9	75.3	68.1	68.1
75°	736.4	471.5	184.7	111.8	111.8	99.6	97.2	80.2	65.6	60.8	60.8
77.5°	542.0	350.0	160.4	97.2	97.2	87.5	82.6	70.5	60.8	55.9	55.9
80°	367.0	238.2	119.1	72.9	72.9	70.5	65.6	60.8	51.0	46.2	43.7
82.5°	155.5	99.6	58.3	36.5	34.0	26.7	21.9	17.0	17.0	14.6	14.6
85°	26.7	12.2	12.2	9.7	7.3	7.3	7.3	4.9	4.9	4.9	4.9
87.5°	4.9	4.9	4.9	4.9	4.9	4.9	2.4	2.4	2.4	2.4	2.4
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: SP1-2407-157-8

Test Date: 09/05/2024

Luminaire Tested: MEM2-HTN-SA-40-840-U-5WQ

Data in this report applies to families of products including MEM2-HTN-SA-40-840-U-5WQ

**Test Information**

Test Method: LM-79-2019  
 Report Number: SP1-2407-157-8  
 Test Lab: COOPER LIGHTING SOLUTIONS  
 Photometer: SP1 - 76IN SPHERE  
 Measurement Geometry: 4π  
 Issue Date: 09/05/2024  
 Manufacturer: COOPER LIGHTING SOLUTIONS  
 Product Line: Streetworks  
 Catalog Number: **MEM2-HTN-SA-40-840-U-5WQ**  
 Description: Epic Modern Light Square 40W 5WQ Optic

**Spectral Parameters**

CCT (K): 3996  
 CIE u': 0.2245  
 CIE v': 0.5031  
 Duv: 0.0012  
 CIE x: 0.3815  
 CIE y: 0.3799  
 CIE z: 0.2386  
 Peak Wavelength (nm): 449  
 Dominant Wavelength (nm): 578  
 Purity: 28.49233  
 Rf: 82.6  
 Rg: 95.1

CRI (Ra):	80.6		
R1:	78.1	R9:	-5.8
R2:	87.1	R10:	70.3
R3:	94.5	R11:	78.7
R4:	79.7	R12:	60.5
R5:	78.7	R13:	80.2
R6:	82.7	R14:	97.2
R7:	84.3	R15:	70.6
R8:	59.5		



**Test Conditions**

Stabilization Time: 29M  
 Operation Time: 1H 29M  
 Sphere Temperature (°C): 24.3

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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 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	289	NR	620	725	NR	750	17	NR	880	0	NR
365	0	NR	495	351	NR	625	673	NR	755	15	NR	885	0	NR
370	0	NR	500	414	NR	630	619	NR	760	13	NR	890	0	NR
375	0	NR	505	470	NR	635	562	NR	765	11	NR	895	0	NR
380	0	NR	510	513	NR	640	506	NR	770	9	NR	900	0	NR
385	0	NR	515	546	NR	645	452	NR	775	8	NR	905	0	NR
390	0	NR	520	571	NR	650	400	NR	780	7	NR	910	0	NR
395	1	NR	525	592	NR	655	352	NR	785	6	NR	915	0	NR
400	3	NR	530	606	NR	660	307	NR	790	5	NR	920	0	NR
405	6	NR	535	624	NR	665	267	NR	795	4	NR	925	0	NR
410	12	NR	540	642	NR	670	231	NR	800	4	NR	930	0	NR
415	22	NR	545	663	NR	675	199	NR	805	3	NR	935	0	NR
420	44	NR	550	686	NR	680	171	NR	810	3	NR	940	0	NR
425	83	NR	555	713	NR	685	146	NR	815	2	NR	945	0	NR
430	150	NR	560	745	NR	690	125	NR	820	2	NR	950	0	NR
435	267	NR	565	774	NR	695	106	NR	825	2	NR	955	0	NR
440	466	NR	570	806	NR	700	90	NR	830	1	NR	960	0	NR
445	804	NR	575	835	NR	705	76	NR	835	1	NR	965	0	NR
450	1000	NR	580	858	NR	710	65	NR	840	1	NR	970	0	NR
455	715	NR	585	875	NR	715	55	NR	845	1	NR	975	0	NR
460	492	NR	590	884	NR	720	47	NR	850	1	NR	980	0	NR
465	402	NR	595	880	NR	725	40	NR	855	1	NR	985	0	NR
470	288	NR	600	868	NR	730	34	NR	860	1	NR	990	0	NR
475	226	NR	605	844	NR	735	28	NR	865	1	NR	995	0	NR
480	227	NR	610	814	NR	740	24	NR	870	0	NR	1000	0	NR
485	248	NR	615	771	NR	745	20	NR	875	0	NR			

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**Scotopic Flux vs. Wavelength**



**Scotopic Lumens: NR**

**S/P: 1.66**

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	289	NR	620	725	NR	750	17	NR	880	0	NR
365	0	NR	495	351	NR	625	673	NR	755	15	NR	885	0	NR
370	0	NR	500	414	NR	630	619	NR	760	13	NR	890	0	NR
375	0	NR	505	470	NR	635	562	NR	765	11	NR	895	0	NR
380	0	NR	510	513	NR	640	506	NR	770	9	NR	900	0	NR
385	0	NR	515	546	NR	645	452	NR	775	8	NR	905	0	NR
390	0	NR	520	571	NR	650	400	NR	780	7	NR	910	0	NR
395	1	NR	525	592	NR	655	352	NR	785	6	NR	915	0	NR
400	3	NR	530	606	NR	660	307	NR	790	5	NR	920	0	NR
405	6	NR	535	624	NR	665	267	NR	795	4	NR	925	0	NR
410	12	NR	540	642	NR	670	231	NR	800	4	NR	930	0	NR
415	22	NR	545	663	NR	675	199	NR	805	3	NR	935	0	NR
420	44	NR	550	686	NR	680	171	NR	810	3	NR	940	0	NR
425	83	NR	555	713	NR	685	146	NR	815	2	NR	945	0	NR
430	150	NR	560	745	NR	690	125	NR	820	2	NR	950	0	NR
435	267	NR	565	774	NR	695	106	NR	825	2	NR	955	0	NR
440	466	NR	570	806	NR	700	90	NR	830	1	NR	960	0	NR
445	804	NR	575	835	NR	705	76	NR	835	1	NR	965	0	NR
450	1000	NR	580	858	NR	710	65	NR	840	1	NR	970	0	NR
455	715	NR	585	875	NR	715	55	NR	845	1	NR	975	0	NR
460	492	NR	590	884	NR	720	47	NR	850	1	NR	980	0	NR
465	402	NR	595	880	NR	725	40	NR	855	1	NR	985	0	NR
470	288	NR	600	868	NR	730	34	NR	860	1	NR	990	0	NR
475	226	NR	605	844	NR	735	28	NR	865	1	NR	995	0	NR
480	227	NR	610	814	NR	740	24	NR	870	0	NR	1000	0	NR
485	248	NR	615	771	NR	745	20	NR	875	0	NR			

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**Melanopic Flux vs. Wavelength**



**Melanopic Lumens: NR**

**M/P: 3.37**

$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)
360	0	NR	490	289	NR	620	725	NR	750	17	NR	880	0	NR
365	0	NR	495	351	NR	625	673	NR	755	15	NR	885	0	NR
370	0	NR	500	414	NR	630	619	NR	760	13	NR	890	0	NR
375	0	NR	505	470	NR	635	562	NR	765	11	NR	895	0	NR
380	0	NR	510	513	NR	640	506	NR	770	9	NR	900	0	NR
385	0	NR	515	546	NR	645	452	NR	775	8	NR	905	0	NR
390	0	NR	520	571	NR	650	400	NR	780	7	NR	910	0	NR
395	1	NR	525	592	NR	655	352	NR	785	6	NR	915	0	NR
400	3	NR	530	606	NR	660	307	NR	790	5	NR	920	0	NR
405	6	NR	535	624	NR	665	267	NR	795	4	NR	925	0	NR
410	12	NR	540	642	NR	670	231	NR	800	4	NR	930	0	NR
415	22	NR	545	663	NR	675	199	NR	805	3	NR	935	0	NR
420	44	NR	550	686	NR	680	171	NR	810	3	NR	940	0	NR
425	83	NR	555	713	NR	685	146	NR	815	2	NR	945	0	NR
430	150	NR	560	745	NR	690	125	NR	820	2	NR	950	0	NR
435	267	NR	565	774	NR	695	106	NR	825	2	NR	955	0	NR
440	466	NR	570	806	NR	700	90	NR	830	1	NR	960	0	NR
445	804	NR	575	835	NR	705	76	NR	835	1	NR	965	0	NR
450	1000	NR	580	858	NR	710	65	NR	840	1	NR	970	0	NR
455	715	NR	585	875	NR	715	55	NR	845	1	NR	975	0	NR
460	492	NR	590	884	NR	720	47	NR	850	1	NR	980	0	NR
465	402	NR	595	880	NR	725	40	NR	855	1	NR	985	0	NR
470	288	NR	600	868	NR	730	34	NR	860	1	NR	990	0	NR
475	226	NR	605	844	NR	735	28	NR	865	1	NR	995	0	NR
480	227	NR	610	814	NR	740	24	NR	870	0	NR	1000	0	NR
485	248	NR	615	771	NR	745	20	NR	875	0	NR			

**Summary**

$R_f = 82.6$   
 $R_g = 95.1$   
 CIE  $R_a = 80.6$   
 $R_9 = -5.8$



**Color Vector Graphics**





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

CES01 = 85	CES26 = 79	CES51 = 94	CES76 = 72
CES02 = 61	CES27 = 93	CES52 = 94	CES77 = 82
CES03 = 31	CES28 = 90	CES53 = 88	CES78 = 71
CES04 = 69	CES29 = 83	CES54 = 89	CES79 = 91
CES05 = 48	CES30 = 95	CES55 = 88	CES80 = 88
CES06 = 50	CES31 = 86	CES56 = 84	CES81 = 80
CES07 = 40	CES32 = 78	CES57 = 84	CES82 = 95
CES08 = 39	CES33 = 90	CES58 = 84	CES83 = 95
CES09 = 29	CES34 = 85	CES59 = 90	CES84 = 90
CES10 = 74	CES35 = 92	CES60 = 91	CES85 = 78
CES11 = 57	CES36 = 85	CES61 = 87	CES86 = 73
CES12 = 63	CES37 = 91	CES62 = 87	CES87 = 83
CES13 = 42	CES38 = 95	CES63 = 84	CES88 = 86
CES14 = 74	CES39 = 98	CES64 = 78	CES89 = 76
CES15 = 71	CES40 = 94	CES65 = 75	CES90 = 87
CES16 = 46	CES41 = 98	CES66 = 75	CES91 = 72
CES17 = 49	CES42 = 92	CES67 = 73	CES92 = 62
CES18 = 56	CES43 = 88	CES68 = 77	CES93 = 78
CES19 = 71	CES44 = 99	CES69 = 82	CES94 = 60
CES20 = 65	CES45 = 93	CES70 = 72	CES95 = 70
CES21 = 86	CES46 = 90	CES71 = 67	CES96 = 82
CES22 = 78	CES47 = 95	CES72 = 89	CES97 = 90
CES23 = 91	CES48 = 84	CES73 = 65	CES98 = 84
CES24 = 90	CES49 = 89	CES74 = 93	CES99 = 73
CES25 = 71	CES50 = 94	CES75 = 69	



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)