

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: P871288

Luminaire Tested: **EMM2-HSN-SA2A-840-U-T4W-HSS**

Issue Date: 09/05/2024



**Test Information**

Test Method: LM-79-08  
Report Number: P871288  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 09/05/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: EMM2-HSN-SA2A-840-U-T4W-HSS  
Description: EPIC MODERN SHORT HOUSING DISCRETE LED ARRAYS 70W 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**

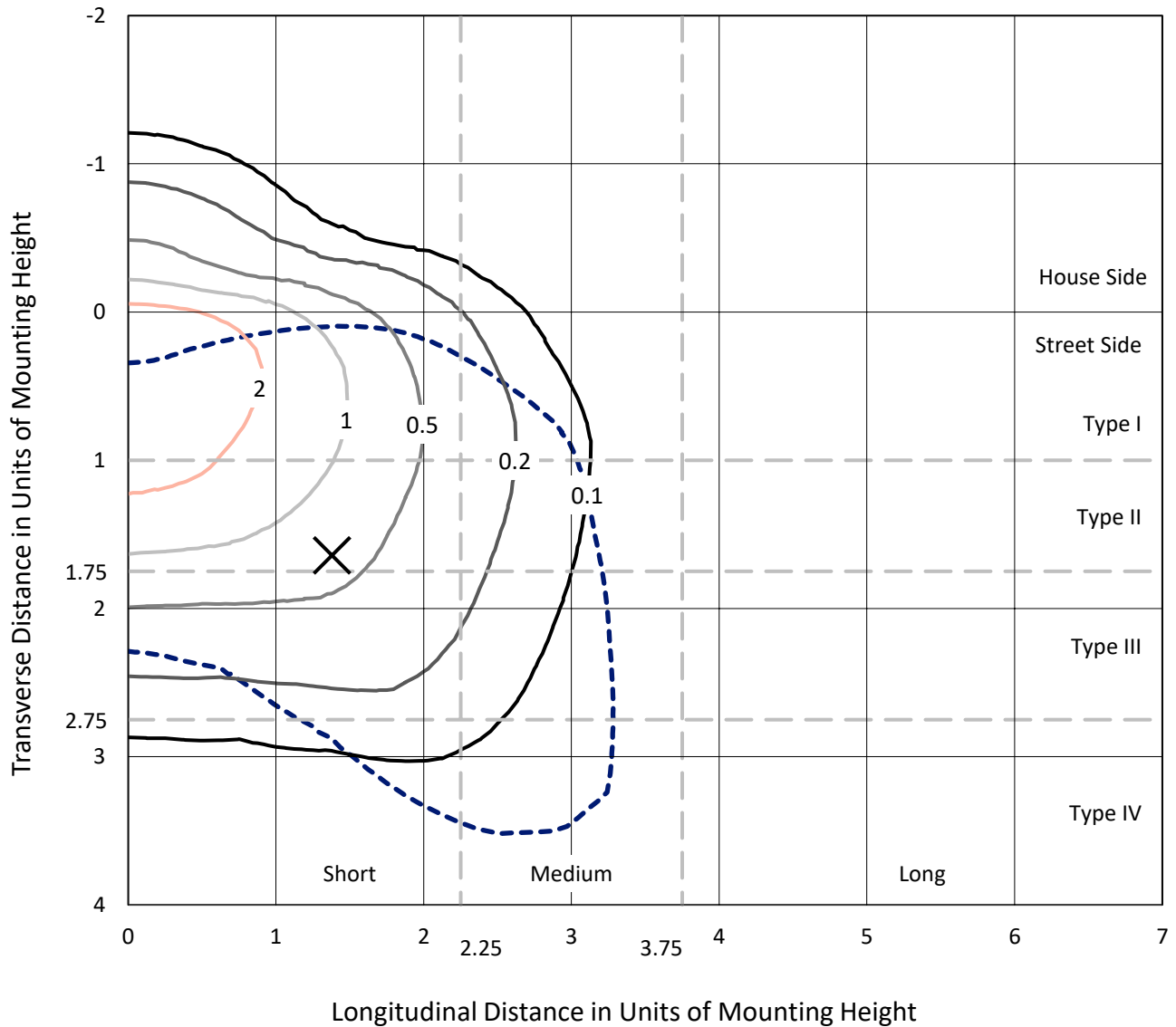
Lumens per Lamp: N/A  
Luminaire Lumens: 6273.5 lumens  
Efficiency: N/A  
Efficacy: 102.8 lumens/watt  
Luminous Opening: Rectangular (W 0.67' x L: 0.33' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B1 - U0 - G2

Input Watts (W): 61  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: 0.99  
Total Harmonic Distortion (THDi): 9.89%  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT

REPORT NUMBER: P871288  
 CATALOG NUMBER: EMM2-HSN-SA2A-840-U-T4W-HSS

### Iso-Footcandle Lines of Horizontal Illumination

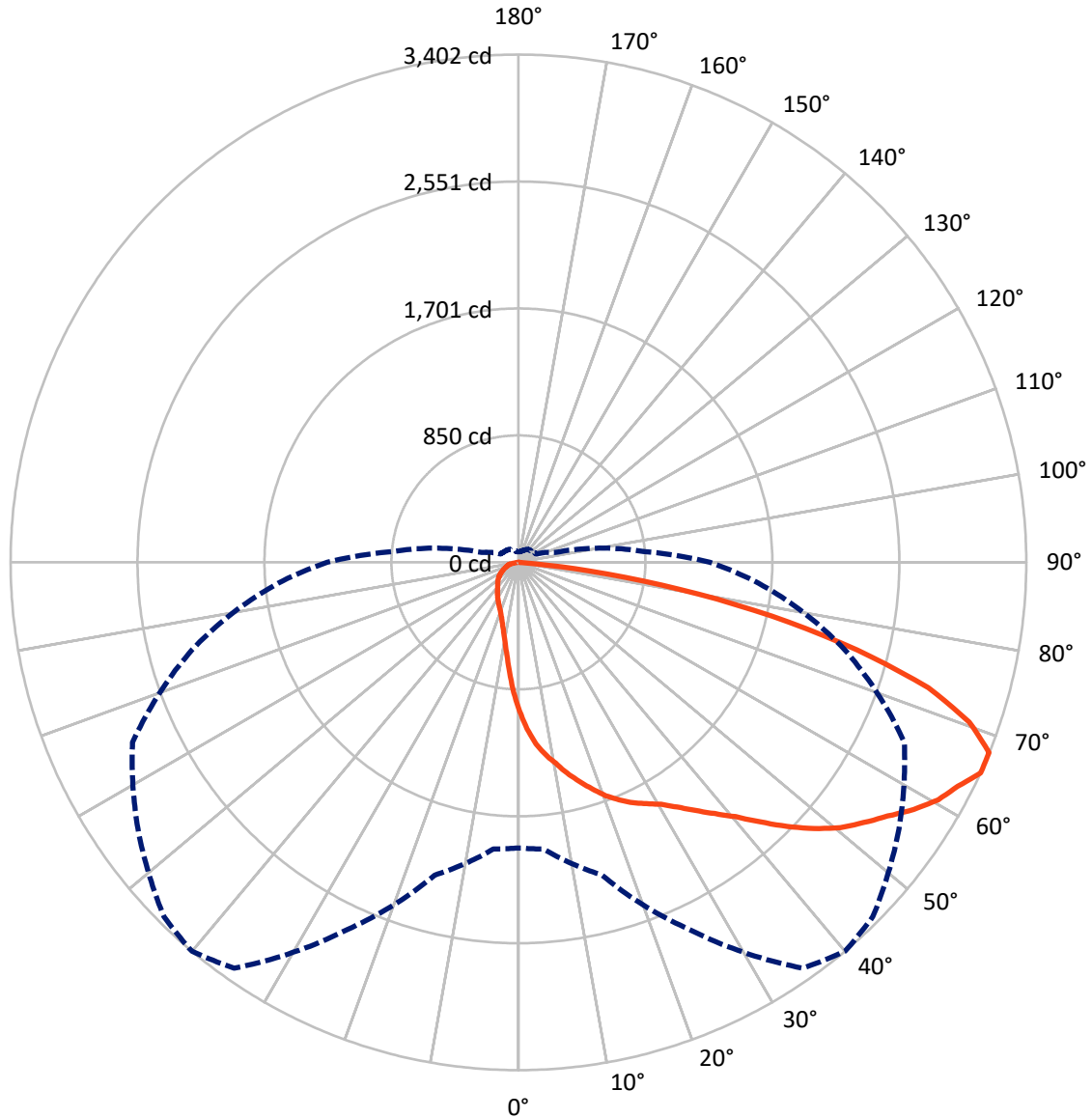
✕ Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 3.6 fc  
 Type IV - Short - N/A

REPORT NUMBER: P871288  
CATALOG NUMBER: EMM2-HSN-SA2A-840-U-T4W-HSS

### Luminous Intensity Polar Plot



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

REPORT NUMBER: P871288

CATALOG NUMBER: EMM2-HSN-SA2A-840-U-T4W-HSS

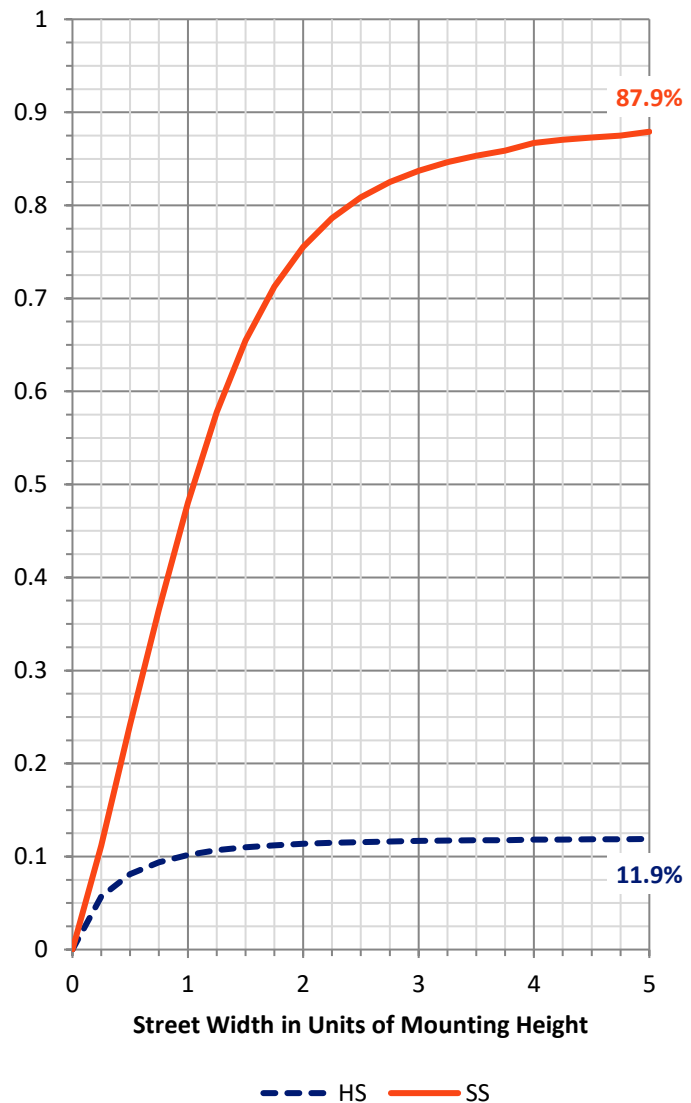
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	751.1	0.0	751.1
	% Fixture	12.0	0.0	12.0
<b>Street Side</b>	Lumens	5522.4	0.0	5522.4
	% Fixture	88.0	0.0	88.0
<b>Total</b>	Lumens	6273.5	0.0	6273.5
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	93.3	1.5
10°-20°	280.7	4.5
20°-30°	482.8	7.7
30°-40°	729.9	11.6
40°-50°	1067.2	17.0
50°-60°	1363.1	21.7
60°-70°	1360.4	21.7
70°-80°	797.7	12.7
80°-90°	98.3	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°	6273.5	100.0
0°-180°	6273.5	100.0



REPORT NUMBER: P871288

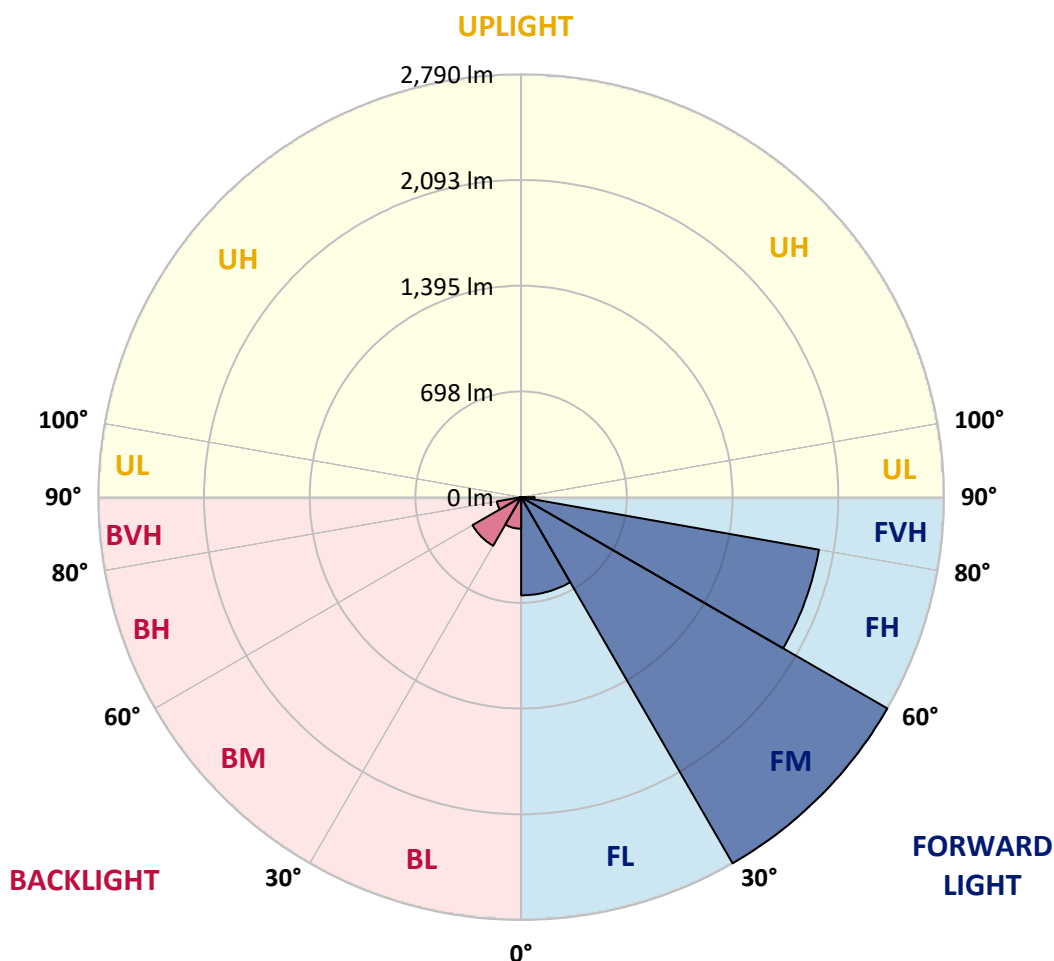
CATALOG NUMBER: EMM2-HSN-SA2A-840-U-T4W-HSS

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	648.0	10.3			
FM (30°-60°)	2790.2	44.5			
FH (60°-80°)	1995.5	31.8			G2/5000
FVH (80°-90°)	88.8	1.4			G1/100
BL (0°-30°)	208.9	3.3	B1/500		
BM (30°-60°)	370.1	5.9	B1/1000		
BH (60°-80°)	162.6	2.6	B1/500		G1/500
BVH (80°-90°)	9.5	0.2			G0/10
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: P871288

CATALOG NUMBER: EMM2-HSN-SA2A-840-U-T4W-HSS

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	997.2	997.2	997.2	997.2	997.2	997.2	997.2	997.2	997.2	997.2	997.2
2.5°	1163.4	1158.1	1147.5	1138.7	1126.3	1115.7	1105.1	1085.6	1060.9	1039.7	1013.1
5°	1278.4	1269.5	1262.4	1251.8	1230.6	1221.8	1214.7	1174.0	1131.6	1087.4	1029.0
7.5°	1359.7	1366.8	1352.6	1336.7	1310.2	1299.6	1289.0	1248.3	1195.2	1131.6	1048.5
10°	1453.4	1455.2	1437.5	1418.0	1389.7	1368.5	1354.4	1304.9	1246.5	1175.8	1069.7
12.5°	1543.6	1543.6	1533.0	1504.7	1467.5	1448.1	1423.3	1366.8	1296.0	1212.9	1094.5
15°	1616.1	1619.6	1610.8	1589.5	1548.9	1522.4	1497.6	1432.2	1342.0	1255.4	1113.9
17.5°	1681.5	1679.7	1674.4	1655.0	1616.1	1594.8	1570.1	1497.6	1395.0	1289.0	1144.0
20°	1725.7	1725.7	1723.9	1713.3	1685.0	1669.1	1639.0	1563.0	1453.4	1338.5	1175.8
22.5°	1759.3	1757.5	1757.5	1759.3	1743.4	1727.5	1715.1	1639.0	1513.5	1380.9	1207.6
25°	1787.6	1785.8	1791.1	1794.6	1787.6	1784.0	1769.9	1711.5	1587.8	1430.4	1239.5
27.5°	1824.7	1830.0	1828.2	1828.2	1826.5	1830.0	1828.2	1778.7	1660.3	1483.5	1273.0
30°	1883.0	1891.9	1886.6	1879.5	1879.5	1881.3	1890.1	1858.3	1745.1	1548.9	1310.2
32.5°	2019.2	2010.4	1973.2	1948.5	1952.0	1953.8	1962.6	1944.9	1830.0	1623.1	1349.1
35°	2174.8	2164.2	2123.5	2066.9	2047.5	2040.4	2038.6	2028.0	1921.9	1702.7	1395.0
37.5°	2376.4	2379.9	2319.8	2238.4	2180.1	2135.9	2127.0	2104.1	2001.5	1775.2	1442.8
40°	2581.5	2567.3	2516.0	2436.5	2321.5	2240.2	2213.7	2181.9	2091.7	1851.2	1488.8
42.5°	2779.5	2753.0	2685.8	2599.1	2464.8	2376.4	2316.2	2275.6	2174.8	1934.3	1533.0
45°	3037.6	2961.6	2841.4	2763.6	2595.6	2523.1	2468.3	2378.1	2273.8	2017.4	1586.0
47.5°	3241.0	3094.2	2984.6	2951.0	2731.7	2664.6	2615.0	2489.5	2374.6	2111.1	1640.8
50°	3203.8	3113.7	3087.1	3057.1	2834.3	2793.6	2747.7	2616.8	2477.1	2210.1	1693.9
52.5°	3108.4	3119.0	3152.6	3101.3	2924.5	2896.2	2866.1	2753.0	2579.7	2291.5	1741.6
55°	3032.3	3053.5	3143.7	3127.8	3032.3	3000.5	2979.3	2887.3	2678.7	2365.7	1782.3
57.5°	2894.4	2876.7	2989.9	3173.8	3147.3	3122.5	3101.3	3028.8	2779.5	2418.8	1808.8
60°	2676.9	2611.5	2763.6	3117.2	3226.8	3230.4	3218.0	3134.9	2860.8	2418.8	1794.6
62.5°	2371.0	2309.2	2496.6	2928.0	3269.3	3302.8	3295.8	3172.0	2896.2	2365.7	1739.8
65°	1913.1	1927.3	2169.5	2714.1	3318.8	3401.9	3357.7	3111.9	2852.0	2263.2	1616.1
67.5°	1527.7	1570.1	1787.6	2436.5	3295.8	3400.1	3338.2	2942.2	2662.8	2120.0	1426.9
70°	1205.9	1234.1	1414.5	2061.6	3094.2	3203.8	3126.0	2682.2	2342.8	1899.0	1186.4
72.5°	942.4	968.9	1122.8	1649.7	2744.1	2871.4	2774.2	2332.1	1943.2	1610.8	942.4
75°	716.1	735.5	850.5	1271.3	2185.4	2344.5	2273.8	1867.1	1517.0	1274.8	721.4
77.5°	461.5	488.0	617.1	891.1	1543.6	1734.5	1743.4	1395.0	1090.9	921.2	530.4
80°	305.9	316.5	396.1	579.9	949.5	1098.0	1149.3	942.4	696.6	587.0	381.9
82.5°	127.3	141.4	189.2	291.7	475.6	477.4	546.3	397.8	282.9	249.3	160.9
85°	3.5	7.1	5.3	14.1	12.4	19.4	23.0	31.8	23.0	24.8	24.8
87.5°	0.0	0.0	1.8	1.8	3.5	3.5	3.5	3.5	3.5	5.3	3.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P871288

CATALOG NUMBER: EMM2-HSN-SA2A-840-U-T4W-HSS

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	997.2	997.2	997.2	997.2	997.2	997.2	997.2	997.2	997.2	997.2	997.2
2.5°	1000.8	984.8	953.0	928.3	901.7	882.3	864.6	845.2	832.8	834.6	822.2
5°	1000.8	970.7	907.0	850.5	799.2	762.1	721.4	689.6	666.6	663.0	673.7
7.5°	1006.1	956.6	861.1	776.2	705.5	647.1	604.7	572.9	557.0	546.3	544.6
10°	1011.4	945.9	818.6	710.8	622.4	558.7	521.6	486.2	468.6	466.8	461.5
12.5°	1014.9	933.6	779.7	645.4	553.4	493.3	456.2	427.9	413.7	413.7	412.0
15°	1027.3	930.0	739.1	595.9	500.4	442.0	410.2	387.2	378.4	373.1	371.3
17.5°	1037.9	923.0	703.7	546.3	452.6	401.4	371.3	355.4	346.6	343.0	341.2
20°	1053.8	919.4	670.1	505.7	417.3	367.8	344.8	330.6	325.3	321.8	321.8
22.5°	1069.7	915.9	636.5	470.3	387.2	343.0	321.8	309.4	304.1	302.3	300.6
25°	1089.2	914.1	608.2	440.3	360.7	323.6	304.1	293.5	286.4	282.9	282.9
27.5°	1108.6	915.9	579.9	410.2	337.7	305.9	286.4	274.1	268.8	261.7	263.4
30°	1135.1	917.7	557.0	385.5	318.3	288.2	270.5	254.6	247.5	244.0	244.0
32.5°	1161.7	924.7	534.0	362.5	298.8	274.1	252.8	238.7	229.9	228.1	226.3
35°	1189.9	930.0	512.8	343.0	282.9	258.1	236.9	222.8	215.7	213.9	213.9
37.5°	1221.8	938.9	496.8	325.3	267.0	242.2	222.8	208.6	203.3	201.6	201.6
40°	1255.4	953.0	484.5	309.4	254.6	228.1	210.4	198.0	194.5	192.7	192.7
42.5°	1289.0	965.4	473.9	297.0	242.2	215.7	201.6	189.2	183.9	183.9	183.9
45°	1320.8	974.2	463.2	284.7	229.9	206.9	191.0	180.3	175.0	175.0	175.0
47.5°	1349.1	983.1	447.3	272.3	217.5	194.5	182.1	171.5	166.2	166.2	166.2
50°	1379.1	988.4	429.7	256.4	205.1	185.7	173.3	160.9	157.4	155.6	155.6
52.5°	1403.9	988.4	406.7	240.5	191.0	173.3	162.7	152.1	146.8	143.2	143.2
55°	1421.6	988.4	381.9	221.0	176.8	162.7	152.1	141.4	134.4	129.1	129.1
57.5°	1432.2	983.1	353.6	198.0	162.7	148.5	141.4	129.1	114.9	104.3	100.8
60°	1423.3	967.2	323.6	173.3	146.8	136.1	130.8	114.9	95.5	90.2	90.2
62.5°	1386.2	930.0	293.5	152.1	134.4	123.8	118.5	100.8	86.6	81.3	81.3
65°	1281.9	839.9	256.4	132.6	120.2	113.2	106.1	90.2	77.8	70.7	70.7
67.5°	1129.8	724.9	213.9	116.7	107.9	102.6	97.2	81.3	69.0	61.9	61.9
70°	915.9	585.2	182.1	102.6	95.5	91.9	86.6	74.3	60.1	54.8	54.8
72.5°	719.6	459.7	152.1	91.9	88.4	81.3	77.8	65.4	54.8	49.5	49.5
75°	535.7	343.0	134.4	81.3	81.3	72.5	70.7	58.3	47.7	44.2	44.2
77.5°	394.3	254.6	116.7	70.7	70.7	63.7	60.1	51.3	44.2	40.7	40.7
80°	267.0	173.3	86.6	53.0	53.0	51.3	47.7	44.2	37.1	33.6	31.8
82.5°	113.2	72.5	42.4	26.5	24.8	19.4	15.9	12.4	12.4	10.6	10.6
85°	19.4	8.8	8.8	7.1	5.3	5.3	5.3	3.5	3.5	3.5	3.5
87.5°	3.5	3.5	3.5	3.5	3.5	3.5	1.8	1.8	1.8	1.8	1.8
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

REPORT NUMBER: SP1-2407-157-8

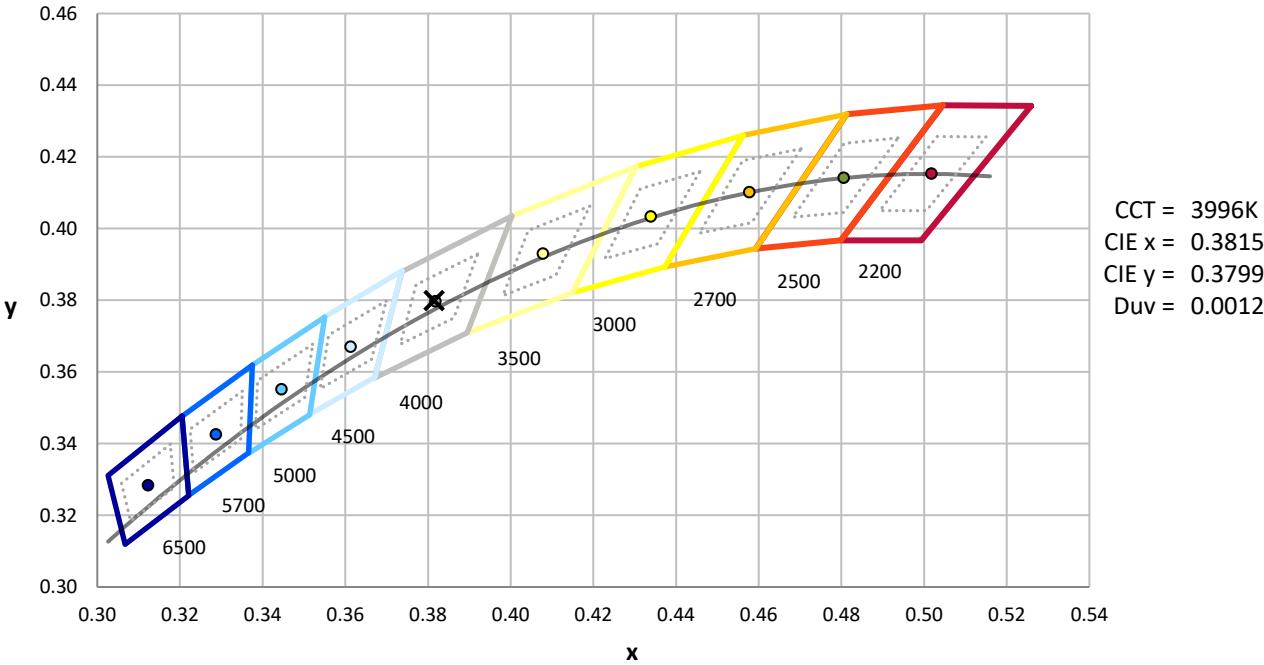
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

REPORT NUMBER: SP1-2407-157-8

**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

REPORT NUMBER: SP1-2407-157-8

**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			

REPORT NUMBER: SP1-2407-157-8

**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			

REPORT NUMBER: SP1-2407-157-8

Melanopic Flux vs. Wavelength



Melanopic Lumens: NR

M/P: 3.37

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			

**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)