

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: P871287

Luminaire Tested: **EMM2-HSN-SA1B-840-U-T4W-HSS**

Issue Date: 09/05/2024



**Test Information**

Test Method: LM-79-08  
Report Number: P871287  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 09/05/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: EMM2-HSN-SA1B-840-U-T4W-HSS  
Description: EPIC MODERN SHORT HOUSING DISCRETE LED ARRAYS 60W 80CRI 4000K  
FIXTURE w/ TYPE IV WIDE DISTRIBUTION OPTIC AND HOUSE SIDE SHIELD  
Light Source: (10) 4000K CCT, 80 CRI LEDs  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

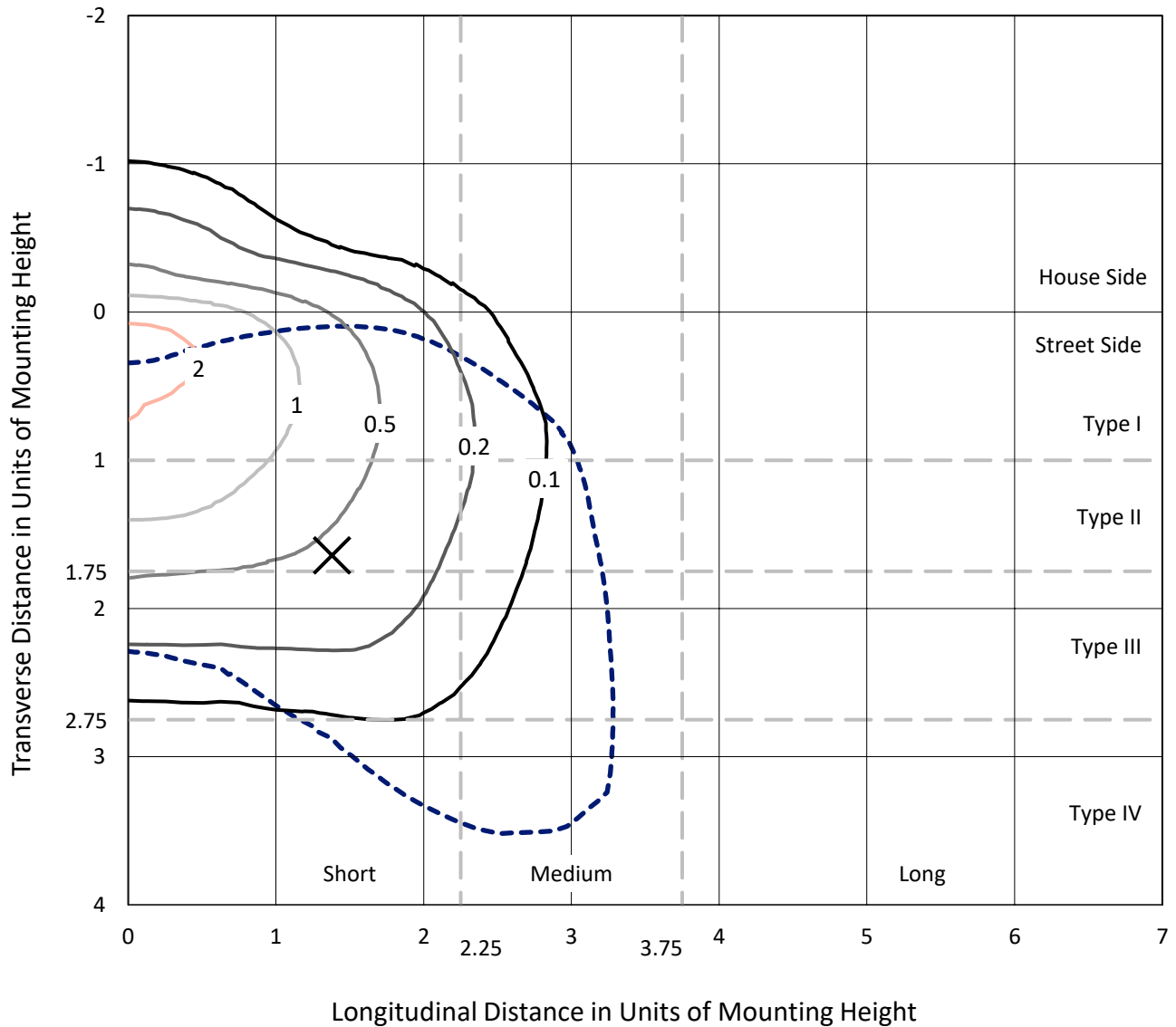
Lumens per Lamp: N/A  
Luminaire Lumens: 4200.8 lumens  
Efficiency: N/A  
Efficacy: 95.5 lumens/watt  
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B1 - U0 - G1

Input Watts (W): 44  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: 0.99  
Total Harmonic Distortion (THDi): 6.91%  
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

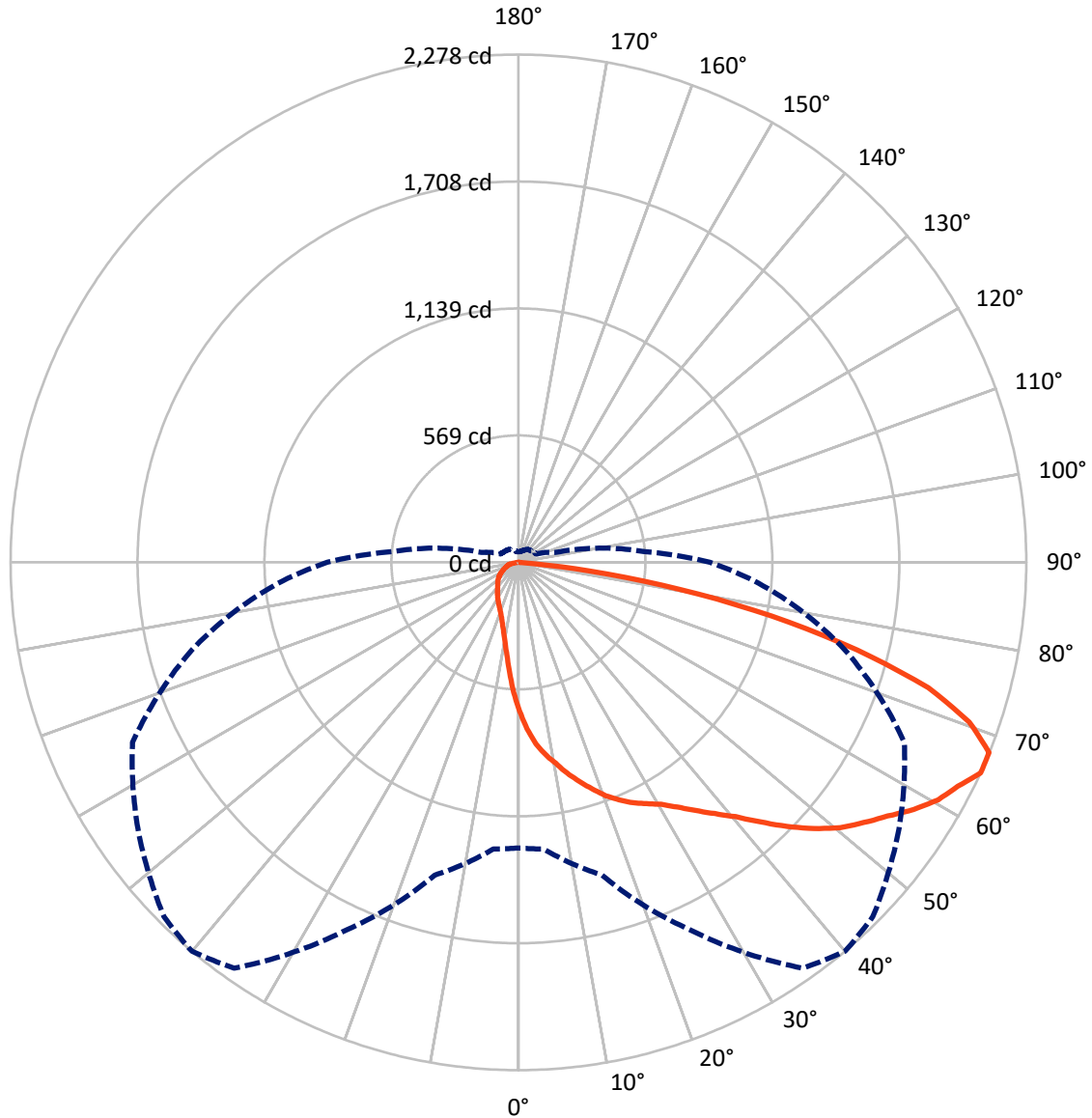
× Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 2.4 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	502.9	0.0	502.9
	% Fixture	12.0	0.0	12.0
<b>Street Side</b>	Lumens	3697.8	0.0	3697.8
	% Fixture	88.0	0.0	88.0
<b>Total</b>	Lumens	4200.8	0.0	4200.8
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	62.5	1.5
10°-20°	188.0	4.5
20°-30°	323.3	7.7
30°-40°	488.7	11.6
40°-50°	714.6	17.0
50°-60°	912.8	21.7
60°-70°	910.9	21.7
70°-80°	534.2	12.7
80°-90°	65.8	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°	4200.8	100.0
0°-180°	4200.8	100.0

**Coefficient of Utilization**



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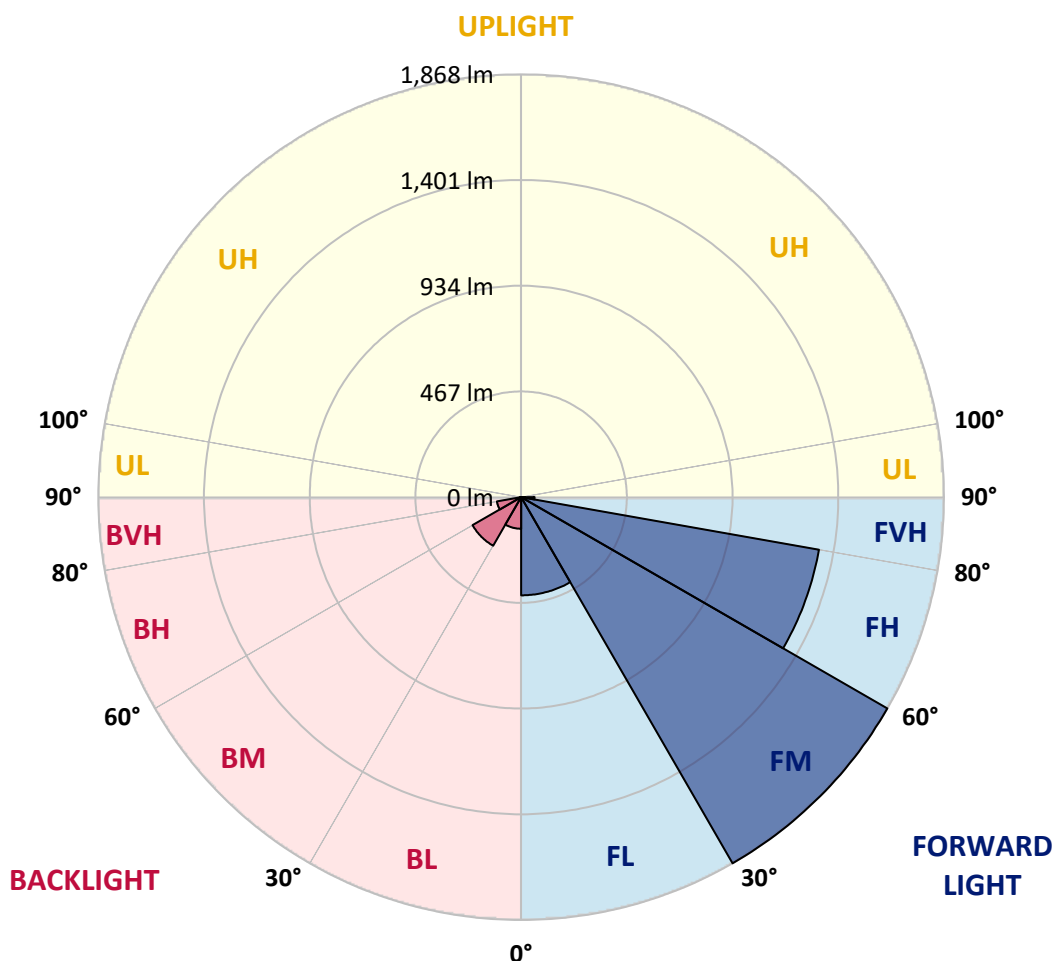
CATALOG NUMBER: EMM2-HSN-SA1B-840-U-T4W-HSS

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	433.9	10.3			
FM (30°-60°)	1868.3	44.5			
FH (60°-80°)	1336.2	31.8			G1/1800
FVH (80°-90°)	59.5	1.4			G1/100
BL (0°-30°)	139.9	3.3	B1/500		
BM (30°-60°)	247.8	5.9	B1/1000		
BH (60°-80°)	108.9	2.6	B0/110		G0/110
BVH (80°-90°)	6.3	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-G1**

Type IV Short





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CATALOG NUMBER: EMM2-HSN-SA1B-840-U-T4W-HSS

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	667.7	667.7	667.7	667.7	667.7	667.7	667.7	667.7	667.7	667.7	667.7
2.5°	779.0	775.5	768.4	762.5	754.2	747.1	740.0	726.9	710.4	696.2	678.4
5°	856.0	850.1	845.3	838.2	824.0	818.1	813.4	786.1	757.7	728.1	689.1
7.5°	910.4	915.2	905.7	895.1	877.3	870.2	863.1	835.9	800.3	757.7	702.1
10°	973.2	974.4	962.5	949.5	930.6	916.4	906.9	873.7	834.7	787.3	716.3
12.5°	1033.6	1033.6	1026.5	1007.5	982.7	969.6	953.1	915.2	867.8	812.2	732.9
15°	1082.1	1084.5	1078.6	1064.4	1037.1	1019.4	1002.8	959.0	898.6	840.6	745.9
17.5°	1125.9	1124.7	1121.2	1108.2	1082.1	1067.9	1051.3	1002.8	934.1	863.1	766.0
20°	1155.5	1155.5	1154.3	1147.2	1128.3	1117.6	1097.5	1046.6	973.2	896.2	787.3
22.5°	1178.0	1176.8	1176.8	1178.0	1167.4	1156.7	1148.4	1097.5	1013.5	924.7	808.6
25°	1197.0	1195.8	1199.3	1201.7	1197.0	1194.6	1185.1	1146.1	1063.2	957.8	829.9
27.5°	1221.8	1225.4	1224.2	1224.2	1223.0	1225.4	1224.2	1191.0	1111.7	993.3	852.4
30°	1260.9	1266.8	1263.3	1258.5	1258.5	1259.7	1265.6	1244.3	1168.5	1037.1	877.3
32.5°	1352.1	1346.1	1321.3	1304.7	1307.1	1308.3	1314.2	1302.3	1225.4	1086.9	903.3
35°	1456.2	1449.1	1421.9	1384.0	1371.0	1366.3	1365.1	1358.0	1286.9	1140.1	934.1
37.5°	1591.2	1593.6	1553.3	1498.9	1459.8	1430.2	1424.3	1408.9	1340.2	1188.7	966.1
40°	1728.6	1719.1	1684.7	1631.5	1554.5	1500.0	1482.3	1461.0	1400.6	1239.6	996.9
42.5°	1861.2	1843.4	1798.4	1740.4	1650.4	1591.2	1551.0	1523.7	1456.2	1295.2	1026.5
45°	2034.0	1983.1	1902.6	1850.5	1738.0	1689.5	1652.8	1592.4	1522.5	1350.9	1062.0
47.5°	2170.2	2071.9	1998.5	1976.0	1829.2	1784.2	1751.0	1667.0	1590.0	1413.6	1098.7
50°	2145.3	2084.9	2067.2	2047.0	1897.9	1870.6	1839.8	1752.2	1658.7	1479.9	1134.2
52.5°	2081.4	2088.5	2111.0	2076.6	1958.2	1939.3	1919.2	1843.4	1727.4	1534.4	1166.2
55°	2030.5	2044.7	2105.0	2094.4	2030.5	2009.1	1994.9	1933.4	1793.7	1584.1	1193.4
57.5°	1938.1	1926.3	2002.0	2125.2	2107.4	2090.8	2076.6	2028.1	1861.2	1619.6	1211.2
60°	1792.5	1748.7	1850.5	2087.3	2160.7	2163.1	2154.8	2099.1	1915.6	1619.6	1201.7
62.5°	1587.7	1546.2	1671.7	1960.6	2189.1	2211.6	2206.9	2124.0	1939.3	1584.1	1165.0
65°	1281.0	1290.5	1452.7	1817.3	2222.3	2277.9	2248.3	2083.7	1909.7	1515.4	1082.1
67.5°	1022.9	1051.3	1197.0	1631.5	2206.9	2276.7	2235.3	1970.1	1783.0	1419.5	955.4
70°	807.4	826.4	947.2	1380.5	2071.9	2145.3	2093.2	1796.0	1568.7	1271.5	794.4
72.5°	631.0	648.8	751.8	1104.6	1837.5	1922.7	1857.6	1561.6	1301.1	1078.6	631.0
75°	479.5	492.5	569.5	851.3	1463.3	1569.9	1522.5	1250.2	1015.8	853.6	483.0
77.5°	309.0	326.8	413.2	596.7	1033.6	1161.4	1167.4	934.1	730.5	616.8	355.2
80°	204.8	211.9	265.2	388.3	635.8	735.2	769.6	631.0	466.5	393.1	255.7
82.5°	85.2	94.7	126.7	195.3	318.5	319.7	365.8	266.4	189.4	166.9	107.7
85°	2.4	4.7	3.6	9.5	8.3	13.0	15.4	21.3	15.4	16.6	16.6
87.5°	0.0	0.0	1.2	1.2	2.4	2.4	2.4	2.4	2.4	3.6	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



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CATALOG NUMBER: EMM2-HSN-SA1B-840-U-T4W-HSS

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	667.7	667.7	667.7	667.7	667.7	667.7	667.7	667.7	667.7	667.7	667.7
2.5°	670.1	659.5	638.1	621.6	603.8	590.8	578.9	565.9	557.6	558.8	550.5
5°	670.1	650.0	607.4	569.5	535.1	510.3	483.0	461.7	446.3	444.0	451.1
7.5°	673.7	640.5	576.6	519.7	472.4	433.3	404.9	383.6	372.9	365.8	364.7
10°	677.2	633.4	548.2	475.9	416.7	374.1	349.3	325.6	313.7	312.6	309.0
12.5°	679.6	625.1	522.1	432.1	370.6	330.3	305.5	286.5	277.0	277.0	275.9
15°	687.9	622.8	494.9	399.0	335.1	296.0	274.7	259.3	253.4	249.8	248.6
17.5°	695.0	618.0	471.2	365.8	303.1	268.8	248.6	238.0	232.1	229.7	228.5
20°	705.6	615.6	448.7	338.6	279.4	246.3	230.9	221.4	217.8	215.5	215.5
22.5°	716.3	613.3	426.2	314.9	259.3	229.7	215.5	207.2	203.6	202.5	201.3
25°	729.3	612.1	407.3	294.8	241.5	216.7	203.6	196.5	191.8	189.4	189.4
27.5°	742.3	613.3	388.3	274.7	226.1	204.8	191.8	183.5	180.0	175.2	176.4
30°	760.1	614.5	372.9	258.1	213.1	193.0	181.1	170.5	165.8	163.4	163.4
32.5°	777.8	619.2	357.5	242.7	200.1	183.5	169.3	159.8	153.9	152.7	151.5
35°	796.8	622.8	343.3	229.7	189.4	172.9	158.6	149.2	144.4	143.3	143.3
37.5°	818.1	628.7	332.7	217.8	178.8	162.2	149.2	139.7	136.2	135.0	135.0
40°	840.6	638.1	324.4	207.2	170.5	152.7	140.9	132.6	130.2	129.0	129.0
42.5°	863.1	646.4	317.3	198.9	162.2	144.4	135.0	126.7	123.1	123.1	123.1
45°	884.4	652.4	310.2	190.6	153.9	138.5	127.9	120.8	117.2	117.2	117.2
47.5°	903.3	658.3	299.5	182.3	145.6	130.2	121.9	114.8	111.3	111.3	111.3
50°	923.5	661.8	287.7	171.7	137.3	124.3	116.0	107.7	105.4	104.2	104.2
52.5°	940.0	661.8	272.3	161.0	127.9	116.0	108.9	101.8	98.3	95.9	95.9
55°	951.9	661.8	255.7	148.0	118.4	108.9	101.8	94.7	90.0	86.4	86.4
57.5°	959.0	658.3	236.8	132.6	108.9	99.5	94.7	86.4	77.0	69.9	67.5
60°	953.1	647.6	216.7	116.0	98.3	91.2	87.6	77.0	63.9	60.4	60.4
62.5°	928.2	622.8	196.5	101.8	90.0	82.9	79.3	67.5	58.0	54.5	54.5
65°	858.4	562.4	171.7	88.8	80.5	75.8	71.0	60.4	52.1	47.4	47.4
67.5°	756.5	485.4	143.3	78.1	72.2	68.7	65.1	54.5	46.2	41.4	41.4
70°	613.3	391.9	121.9	68.7	63.9	61.6	58.0	49.7	40.3	36.7	36.7
72.5°	481.9	307.8	101.8	61.6	59.2	54.5	52.1	43.8	36.7	33.2	33.2
75°	358.7	229.7	90.0	54.5	54.5	48.5	47.4	39.1	32.0	29.6	29.6
77.5°	264.0	170.5	78.1	47.4	47.4	42.6	40.3	34.3	29.6	27.2	27.2
80°	178.8	116.0	58.0	35.5	35.5	34.3	32.0	29.6	24.9	22.5	21.3
82.5°	75.8	48.5	28.4	17.8	16.6	13.0	10.7	8.3	8.3	7.1	7.1
85°	13.0	5.9	5.9	4.7	3.6	3.6	3.6	2.4	2.4	2.4	2.4
87.5°	2.4	2.4	2.4	2.4	2.4	2.4	1.2	1.2	1.2	1.2	1.2
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: SP1-2407-157-8

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

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CIE 1931 Chromaticity Diagram



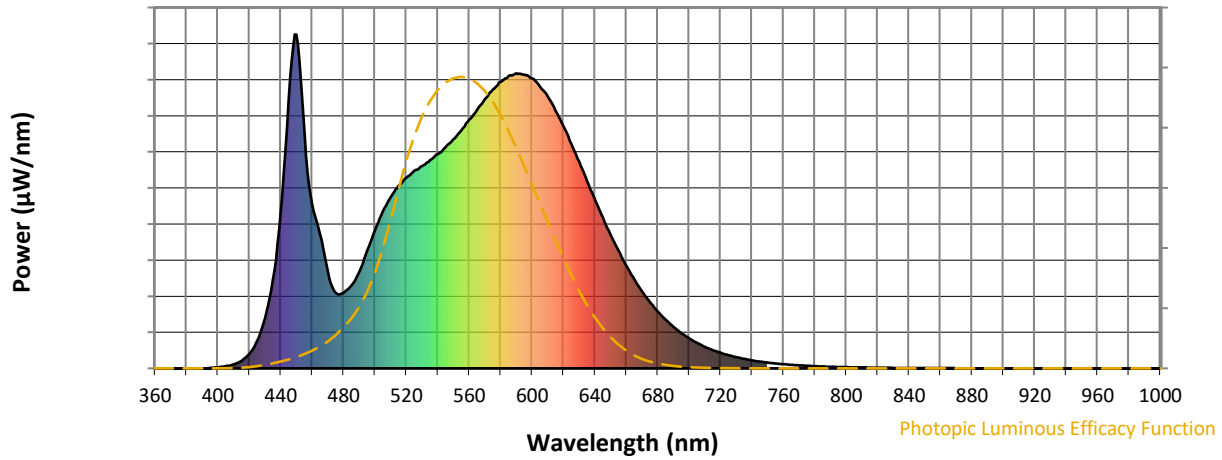
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 4000K 4-step quadrangle

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**Photopic Flux vs. Wavelength**



**Photopic Lumens: NR**

$\lambda$ (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	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**



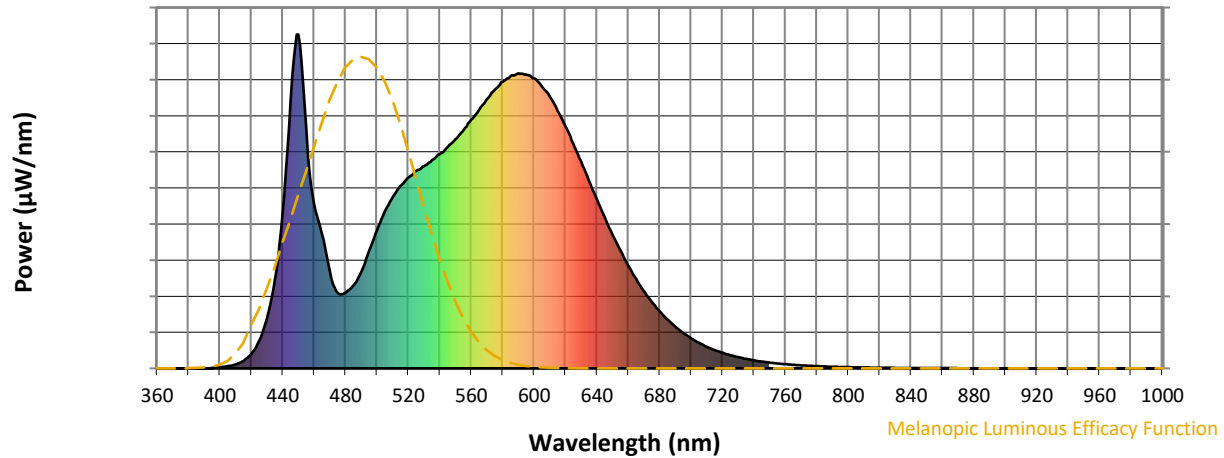
**Scotopic Lumens: NR**

**S/P: 1.66**

$\lambda$ (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	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

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**



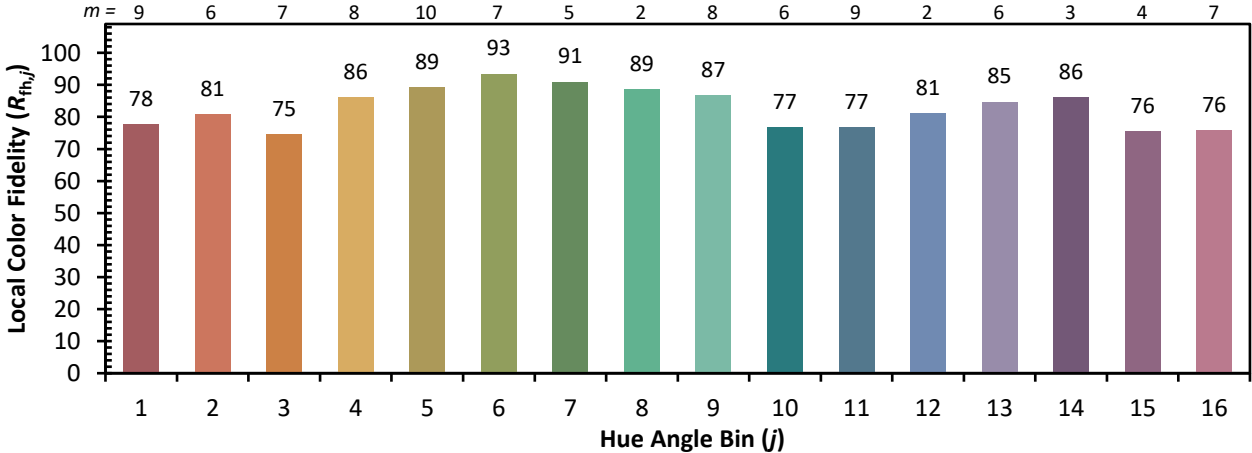


**Individual Sample Fidelity Index ( $R_{f,i}$ )**

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)