

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: P870643

Luminaire Tested: **EMM2-HTN-SA1B-840-U-T2R**

Issue Date: 09/05/2024



**Test Information**

Test Method: LM-79-08  
Report Number: P870643  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 09/05/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: EMM2-HTN-SA1B-840-U-T2R  
Description: EPIC MODERN TALL HOUSING DISCRETE LED ARRAYS 60W 80CRI 4000K  
FIXTURE w/ TYPE II ROADWAY DISTRIBUTION OPTIC  
Light Source: (10) 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

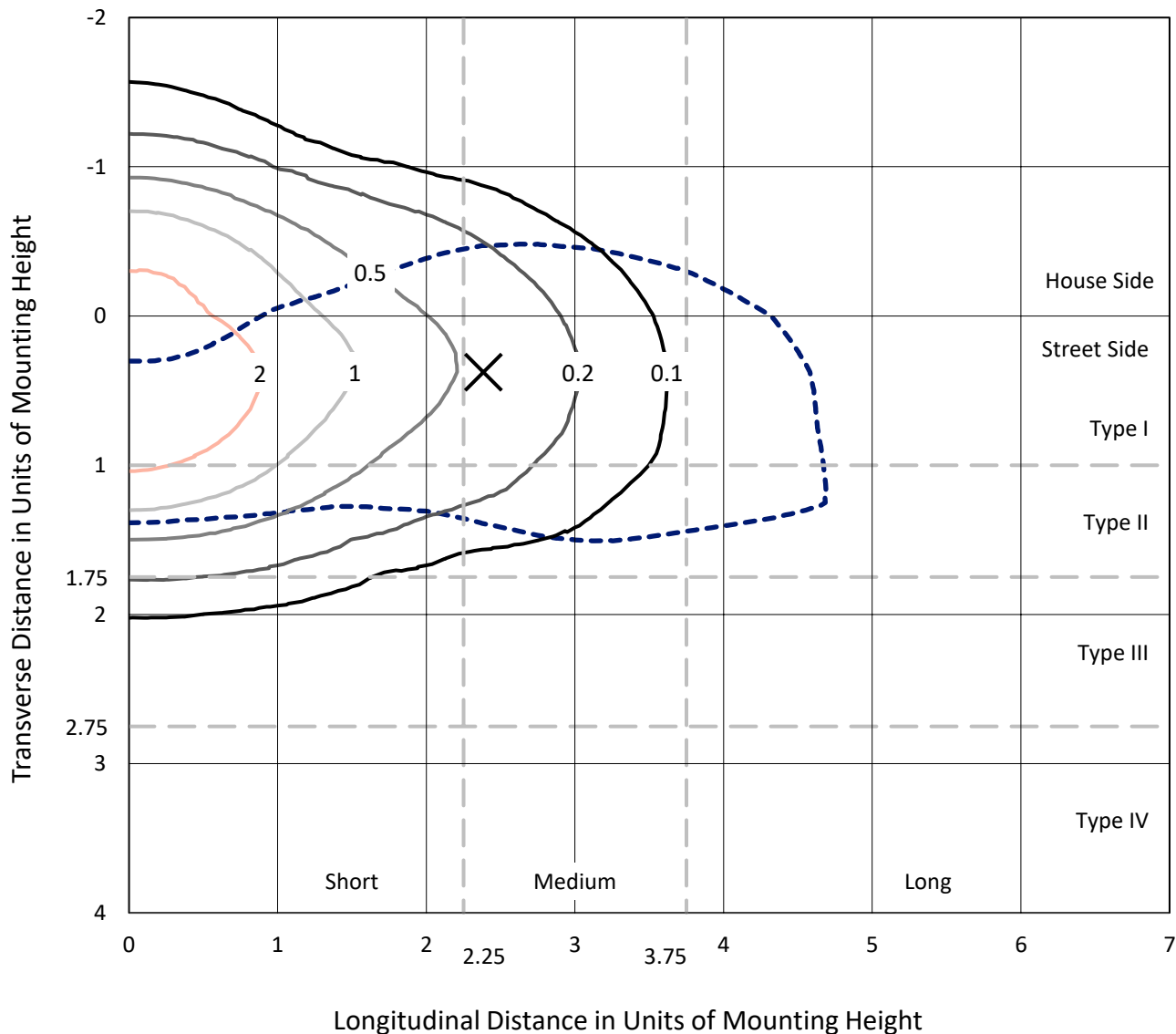
Lumens per Lamp: N/A  
Luminaire Lumens: 5971.1 lumens  
Efficiency: N/A  
Efficacy: 135.7 lumens/watt  
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')  
IES Classification: Type II - Medium  
BUG Rating: B1 - U0 - G1

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

REPORT NUMBER: P870643  
 CATALOG NUMBER: EMM2-HTN-SA1B-840-U-T2R

### Iso-Footcandle Lines of Horizontal Illumination

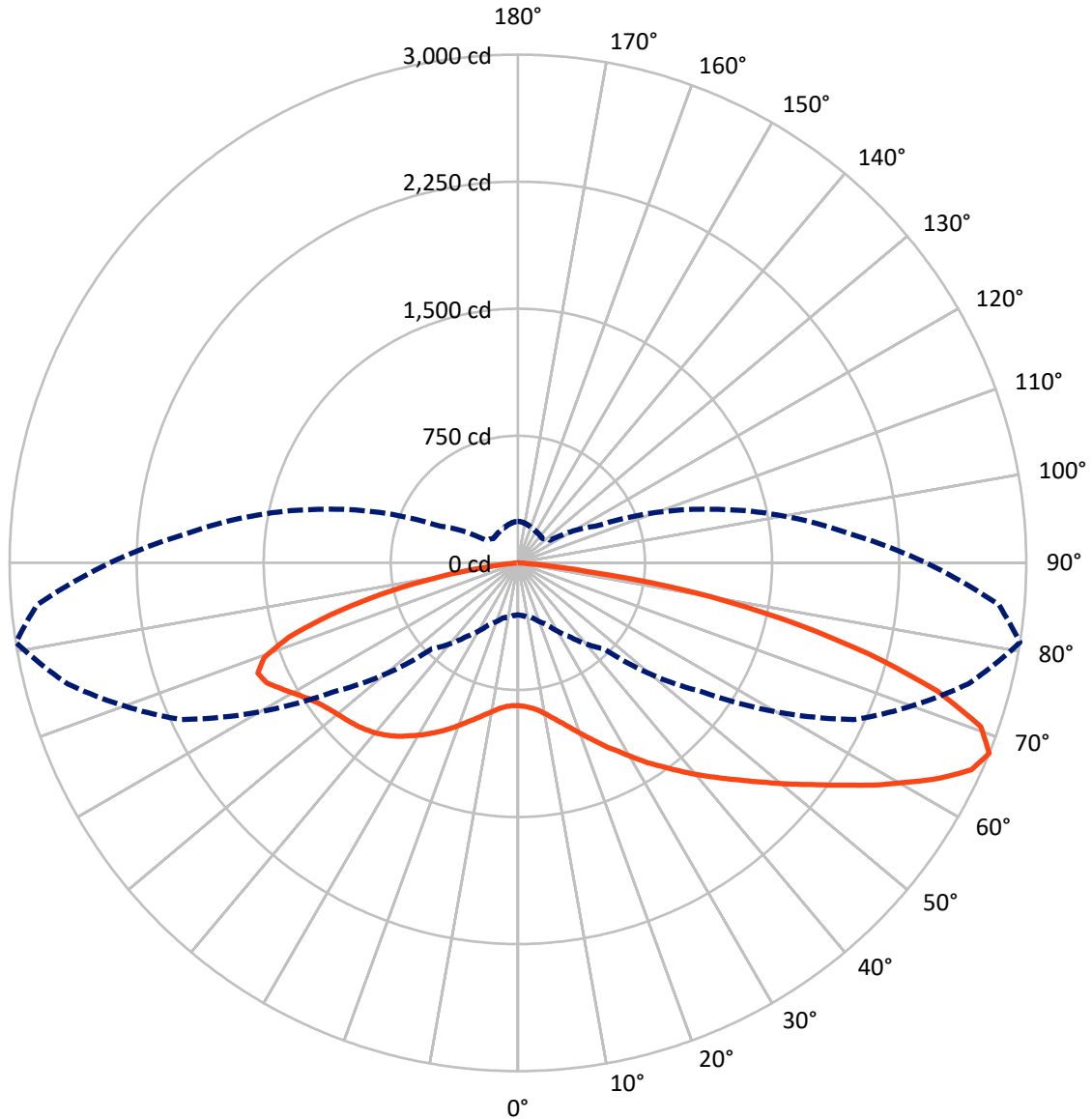
× Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 3.8 fc  
 Type II - Medium - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 81-Deg Lateral      - - - Horizontal Cone Through 67.5-Deg Vertical

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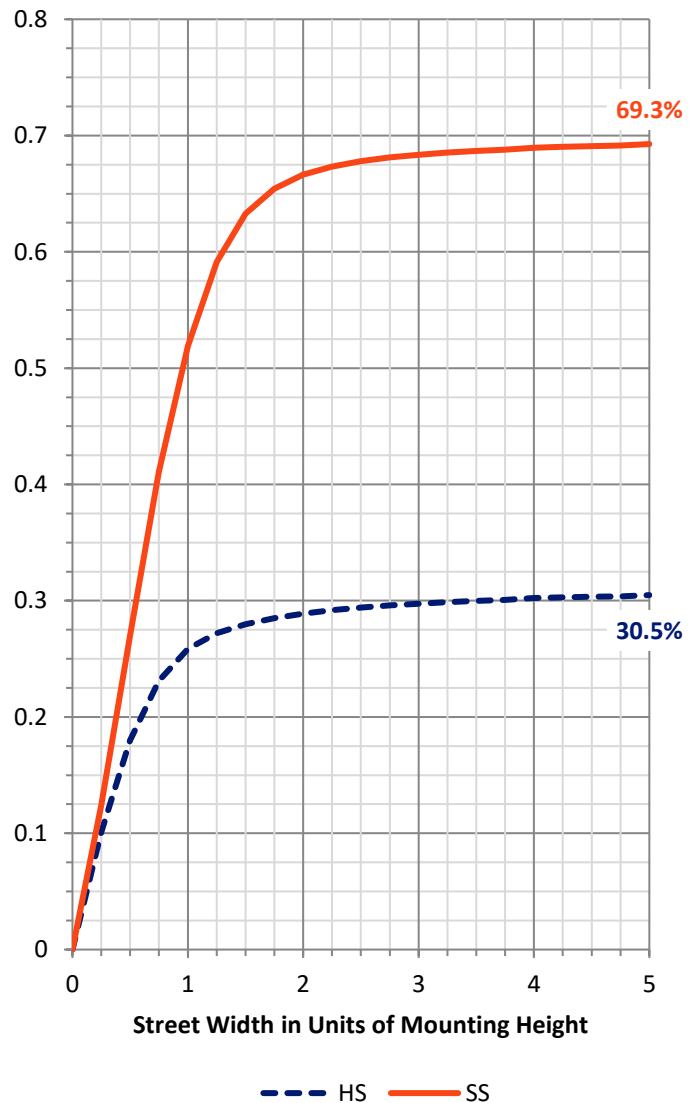
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1829.7	0.0	1829.7
	% Fixture	30.6	0.0	30.6
<b>Street Side</b>	Lumens	4141.4	0.0	4141.4
	% Fixture	69.4	0.0	69.4
<b>Total</b>	Lumens	5971.1	0.0	5971.1
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	86.0	1.4
10°-20°	305.2	5.1
20°-30°	607.8	10.2
30°-40°	954.8	16.0
40°-50°	1184.2	19.8
50°-60°	1157.6	19.4
60°-70°	973.5	16.3
70°-80°	618.6	10.4
80°-90°	83.5	1.4
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°	5971.1	100.0
0°-180°	5971.1	100.0



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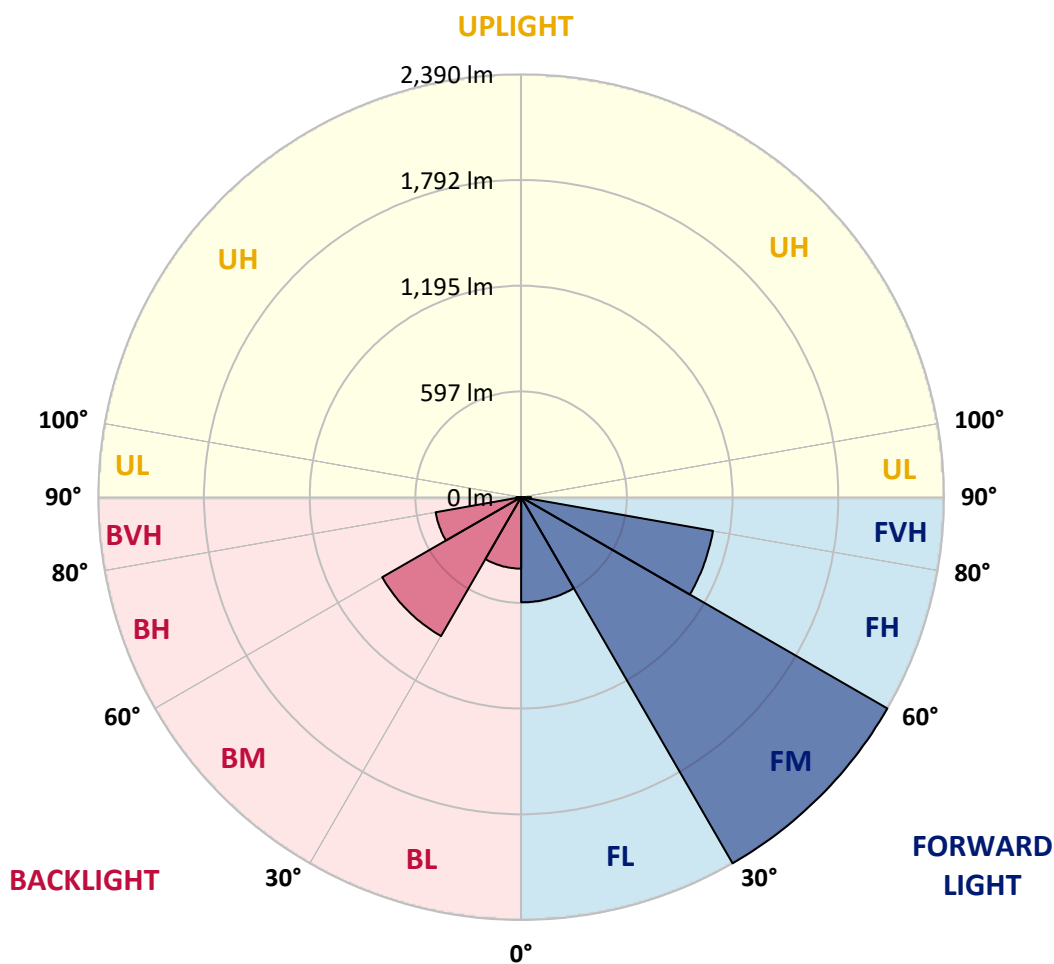
CATALOG NUMBER: EMM2-HTN-SA1B-840-U-T2R

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	594.8	10.0			
FM (30°-60°)	2389.8	40.0			
FH (60°-80°)	1100.9	18.4			G1/1800
FVH (80°-90°)	55.9	0.9			G1/100
BL (0°-30°)	404.1	6.8	B1/500		
BM (30°-60°)	906.8	15.2	B1/1000		
BH (60°-80°)	491.1	8.2	B1/500		G1/500
BVH (80°-90°)	27.6	0.5			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G1**

Type II Medium





REPORT NUMBER: P870643

CATALOG NUMBER: EMM2-HTN-SA1B-840-U-T2R

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	81°	85°
0°	843.0	843.0	843.0	843.0	843.0	843.0	843.0	843.0	843.0	843.0	843.0
2.5°	872.6	871.4	871.4	862.0	862.0	859.6	860.8	853.7	850.1	848.9	847.7
5°	935.4	935.4	928.3	922.3	910.5	899.8	890.4	876.2	865.5	860.8	857.2
7.5°	1030.1	1023.0	1020.6	1002.8	978.0	956.7	937.7	906.9	886.8	879.7	875.0
10°	1146.1	1136.6	1118.9	1098.8	1066.8	1034.8	996.9	955.5	922.3	908.1	902.2
12.5°	1265.7	1252.7	1227.8	1208.9	1167.4	1118.9	1065.6	1008.8	962.6	942.5	931.8
15°	1397.1	1390.0	1360.4	1322.5	1274.0	1205.3	1139.0	1069.2	1010.0	981.5	963.8
17.5°	1539.2	1528.5	1496.6	1450.4	1381.7	1300.0	1223.1	1133.1	1064.4	1027.7	1007.6
20°	1678.9	1676.5	1629.2	1585.4	1504.9	1403.0	1303.6	1208.9	1122.4	1079.8	1053.8
22.5°	1835.2	1819.8	1778.4	1716.8	1620.9	1527.4	1410.1	1287.0	1185.2	1135.5	1105.9
25°	1997.4	1996.2	1945.3	1869.5	1757.1	1638.7	1512.0	1375.8	1259.8	1199.4	1160.3
27.5°	2198.7	2183.3	2118.2	2031.7	1901.5	1765.3	1618.5	1468.2	1330.8	1258.6	1211.2
30°	2375.1	2370.4	2297.0	2199.9	2054.2	1892.0	1733.4	1572.4	1414.9	1329.6	1277.5
32.5°	2518.4	2512.4	2449.7	2352.6	2196.3	2028.2	1845.9	1670.6	1498.9	1406.6	1337.9
35°	2637.9	2628.5	2563.4	2466.3	2331.3	2160.8	1966.6	1773.6	1591.3	1478.8	1413.7
37.5°	2685.3	2677.0	2623.7	2543.2	2418.9	2262.6	2075.6	1887.3	1683.6	1560.5	1487.1
40°	2667.5	2662.8	2624.9	2569.3	2474.6	2344.3	2179.7	2005.7	1787.8	1646.9	1559.3
42.5°	2583.5	2583.5	2559.8	2531.4	2484.0	2390.5	2272.1	2119.4	1888.5	1733.4	1628.0
45°	2465.1	2460.3	2452.1	2441.4	2434.3	2398.8	2332.5	2217.6	1999.8	1828.1	1710.9
47.5°	2307.6	2311.2	2305.2	2310.0	2339.6	2362.1	2358.5	2308.8	2113.4	1932.3	1792.6
50°	2060.2	2076.7	2095.7	2151.3	2211.7	2274.5	2332.5	2373.9	2247.2	2050.7	1887.3
52.5°	1753.5	1760.6	1811.5	1942.9	2072.0	2154.9	2265.0	2403.5	2365.6	2173.8	1998.6
55°	1375.8	1388.8	1465.8	1651.7	1881.4	2040.0	2169.1	2390.5	2486.4	2314.7	2128.8
57.5°	986.3	994.6	1117.7	1309.5	1609.1	1875.5	2060.2	2338.4	2583.5	2474.6	2262.6
60°	700.9	716.3	795.6	982.7	1270.4	1648.1	1960.7	2262.6	2673.5	2630.8	2437.9
62.5°	517.4	525.7	581.3	717.5	954.3	1337.9	1831.6	2207.0	2732.7	2799.0	2613.1
65°	389.5	393.1	431.0	524.5	714.0	986.3	1628.0	2196.3	2765.8	2942.2	2768.2
67.5°	306.7	312.6	336.3	400.2	531.6	717.5	1326.1	2189.2	2754.0	3000.3	2849.9
70°	258.1	259.3	277.1	312.6	397.8	516.2	991.0	2082.7	2687.7	2898.4	2774.1
72.5°	223.8	223.8	232.1	260.5	319.7	390.7	674.9	1828.1	2519.5	2589.4	2511.3
75°	181.2	180.0	194.2	221.4	256.9	300.7	453.5	1384.1	2166.7	2131.2	2067.3
77.5°	157.5	156.3	168.1	191.8	211.9	240.4	310.2	898.7	1705.0	1598.4	1558.1
80°	135.0	131.4	140.9	163.4	174.0	187.1	214.3	523.3	1114.1	1047.8	999.3
82.5°	101.8	93.5	91.2	110.1	117.2	108.9	108.9	183.5	404.9	408.5	377.7
85°	8.3	9.5	11.8	14.2	20.1	22.5	23.7	39.1	60.4	58.0	59.2
87.5°	1.2	1.2	1.2	2.4	2.4	3.6	3.6	3.6	4.7	4.7	4.7
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: P870643

CATALOG NUMBER: EMM2-HTN-SA1B-840-U-T2R

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	843.0	843.0	843.0	843.0	843.0	843.0	843.0	843.0	843.0	843.0	843.0
2.5°	846.6	844.2	841.8	841.8	841.8	839.5	838.3	838.3	837.1	833.5	832.4
5°	854.8	851.3	847.7	847.7	847.7	846.6	845.4	846.6	845.4	841.8	840.6
7.5°	871.4	866.7	862.0	862.0	864.3	863.1	863.1	864.3	863.1	859.6	858.4
10°	895.1	888.0	885.6	885.6	888.0	886.8	885.6	885.6	884.4	878.5	880.9
12.5°	921.2	914.0	911.7	912.9	911.7	909.3	910.5	906.9	905.8	896.3	895.1
15°	954.3	946.0	941.3	942.5	938.9	934.2	929.4	927.1	922.3	914.0	911.7
17.5°	992.2	979.2	973.2	973.2	966.1	956.7	949.6	942.5	935.4	925.9	923.5
20°	1028.9	1017.1	1007.6	1005.2	991.0	975.6	962.6	950.8	942.5	931.8	929.4
22.5°	1075.1	1058.5	1045.5	1034.8	1013.5	988.6	968.5	951.9	940.1	928.3	924.7
25°	1123.6	1099.9	1078.6	1058.5	1028.9	993.4	965.0	941.3	925.9	912.9	910.5
27.5°	1172.2	1141.4	1110.6	1078.6	1033.6	987.5	947.2	918.8	898.7	882.1	879.7
30°	1224.3	1186.4	1137.8	1091.6	1032.4	972.1	921.2	880.9	857.2	838.3	835.9
32.5°	1277.5	1230.2	1163.9	1101.1	1026.5	949.6	883.3	840.6	811.0	789.7	783.8
35°	1336.7	1278.7	1187.6	1104.7	1010.0	916.4	843.0	789.7	755.4	734.1	729.3
37.5°	1397.1	1323.7	1202.9	1102.3	986.3	877.3	790.9	736.4	696.2	666.6	661.9
40°	1458.7	1365.2	1212.4	1090.5	953.1	828.8	742.4	676.1	618.0	590.8	577.8
42.5°	1515.5	1403.0	1217.2	1073.9	916.4	777.9	678.4	592.0	537.5	507.9	513.9
45°	1574.7	1438.6	1218.3	1053.8	867.9	712.8	597.9	517.4	462.9	440.4	438.1
47.5°	1625.6	1468.2	1216.0	1025.3	813.4	638.2	513.9	436.9	396.6	375.3	373.0
50°	1693.1	1501.3	1212.4	992.2	742.4	552.9	435.7	373.0	336.3	319.7	318.5
52.5°	1760.6	1538.0	1210.0	946.0	667.8	472.4	364.7	314.9	290.1	281.8	279.4
55°	1849.4	1583.0	1211.2	892.7	582.5	389.5	309.0	274.7	261.7	258.1	258.1
57.5°	1951.2	1641.0	1218.3	833.5	493.7	322.0	268.8	253.4	252.2	254.6	255.7
60°	2074.4	1718.0	1232.5	772.0	412.0	272.3	245.1	243.9	247.5	255.7	258.1
62.5°	2212.9	1802.0	1250.3	691.5	333.9	239.2	232.1	236.8	241.5	251.0	252.2
65°	2334.8	1896.8	1261.0	614.5	279.4	220.2	223.8	226.1	238.0	251.0	251.0
67.5°	2408.3	1965.4	1220.7	517.4	233.2	203.6	210.8	217.9	230.9	242.7	245.1
70°	2383.4	1942.9	1083.4	401.4	197.7	188.3	196.5	207.2	220.2	234.4	241.5
72.5°	2210.5	1783.1	879.7	292.4	171.7	174.0	184.7	198.9	210.8	226.1	235.6
75°	1848.2	1488.3	634.6	210.8	150.4	159.8	176.4	188.3	196.5	200.1	201.3
77.5°	1403.0	1094.0	432.2	157.5	130.2	143.3	161.0	174.0	176.4	178.8	181.2
80°	916.4	696.2	243.9	110.1	99.5	117.2	131.4	145.6	140.9	148.0	150.4
82.5°	387.2	304.3	111.3	54.5	46.2	49.7	53.3	47.4	43.8	43.8	37.9
85°	50.9	39.1	16.6	7.1	5.9	3.6	3.6	3.6	2.4	2.4	2.4
87.5°	4.7	4.7	3.6	3.6	2.4	2.4	1.2	2.4	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



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

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  $R_a = 80.6$   
 $R_g = -5.8$



**Color Vector Graphics**



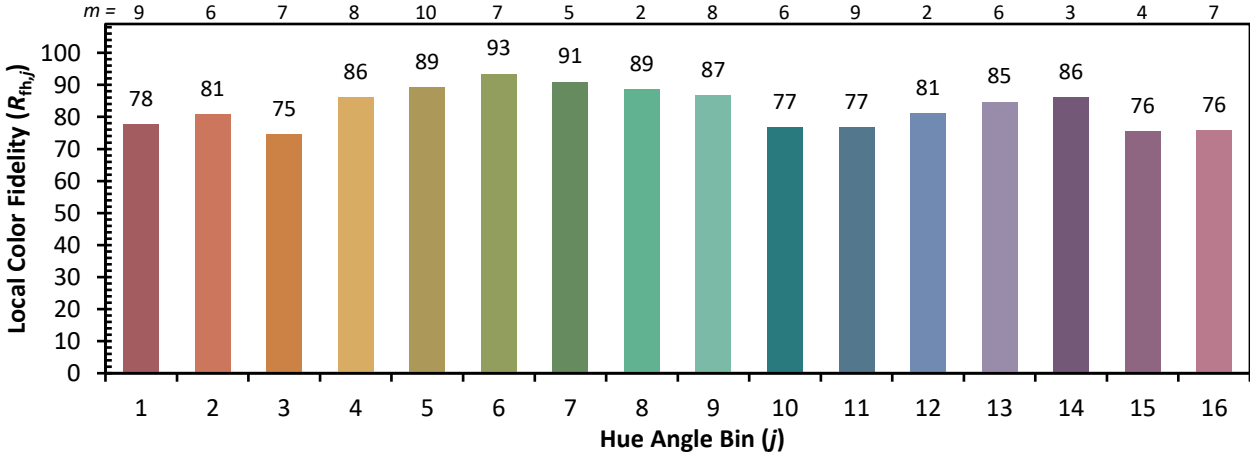


Individual Sample Fidelity Index ( $R_{f,i}$ )

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)