

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: P871292

Luminaire Tested: **EMM2-HSN-SA3B-840-U-T4W-HSS**

Issue Date: 09/05/2024



**Test Information**

Test Method: LM-79-08  
Report Number: P871292  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 09/05/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: EMM2-HSN-SA3B-840-U-T4W-HSS  
Description: EPIC MODERN SHORT HOUSING DISCRETE LED ARRAYS 150W 80CRI 4000K  
FIXTURE w/ TYPE IV WIDE DISTRIBUTION OPTIC AND HOUSE SIDE SHIELD  
Light Source: (30) 4000K CCT, 80 CRI LEDs  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

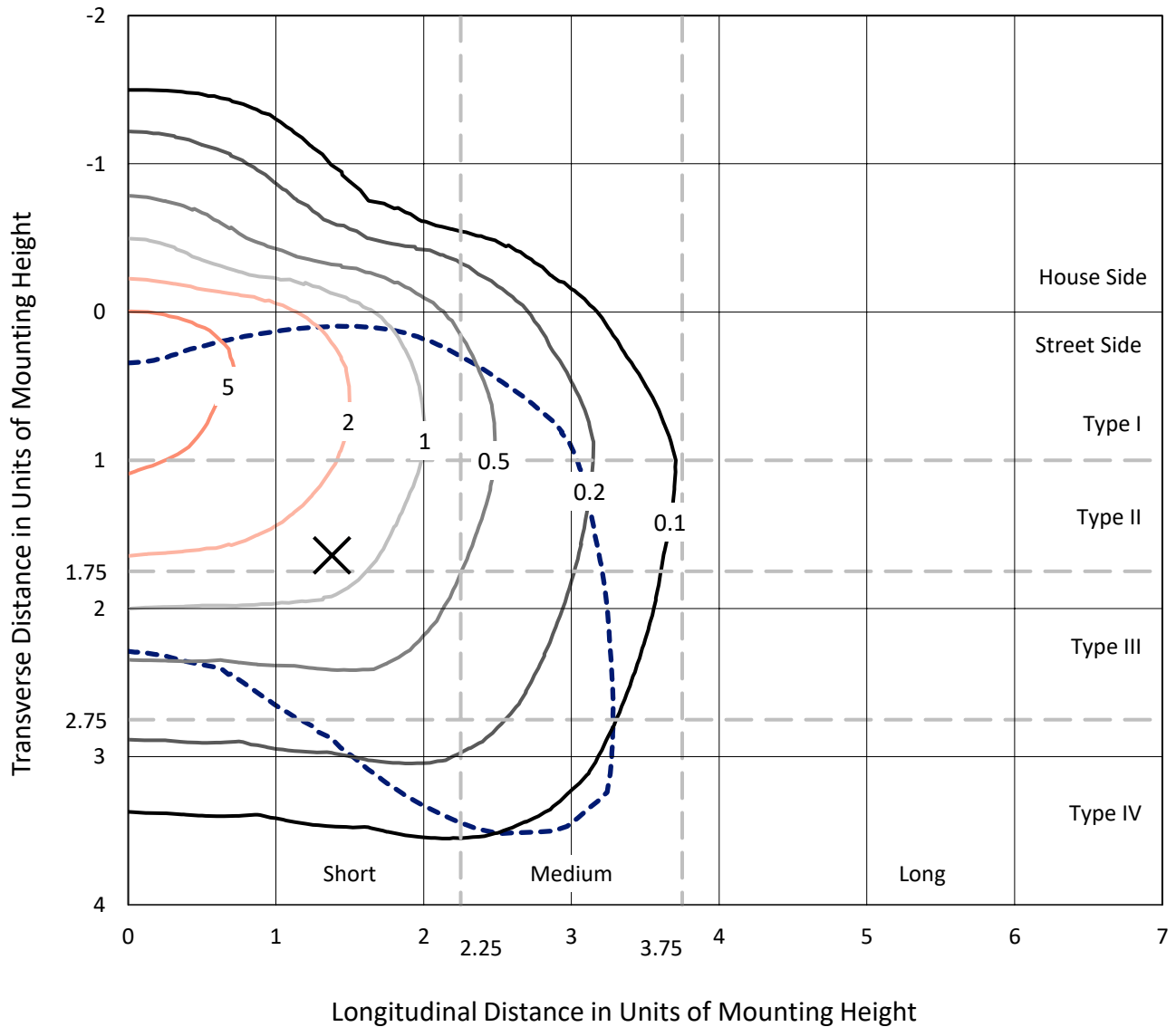
Lumens per Lamp: N/A  
Luminaire Lumens: 12810.3 lumens  
Efficiency: N/A  
Efficacy: 95.6 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 0.33' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B1 - U0 - G2

Input Watts (W): 134  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: 0.99  
Total Harmonic Distortion (THDi): 6.70%  
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

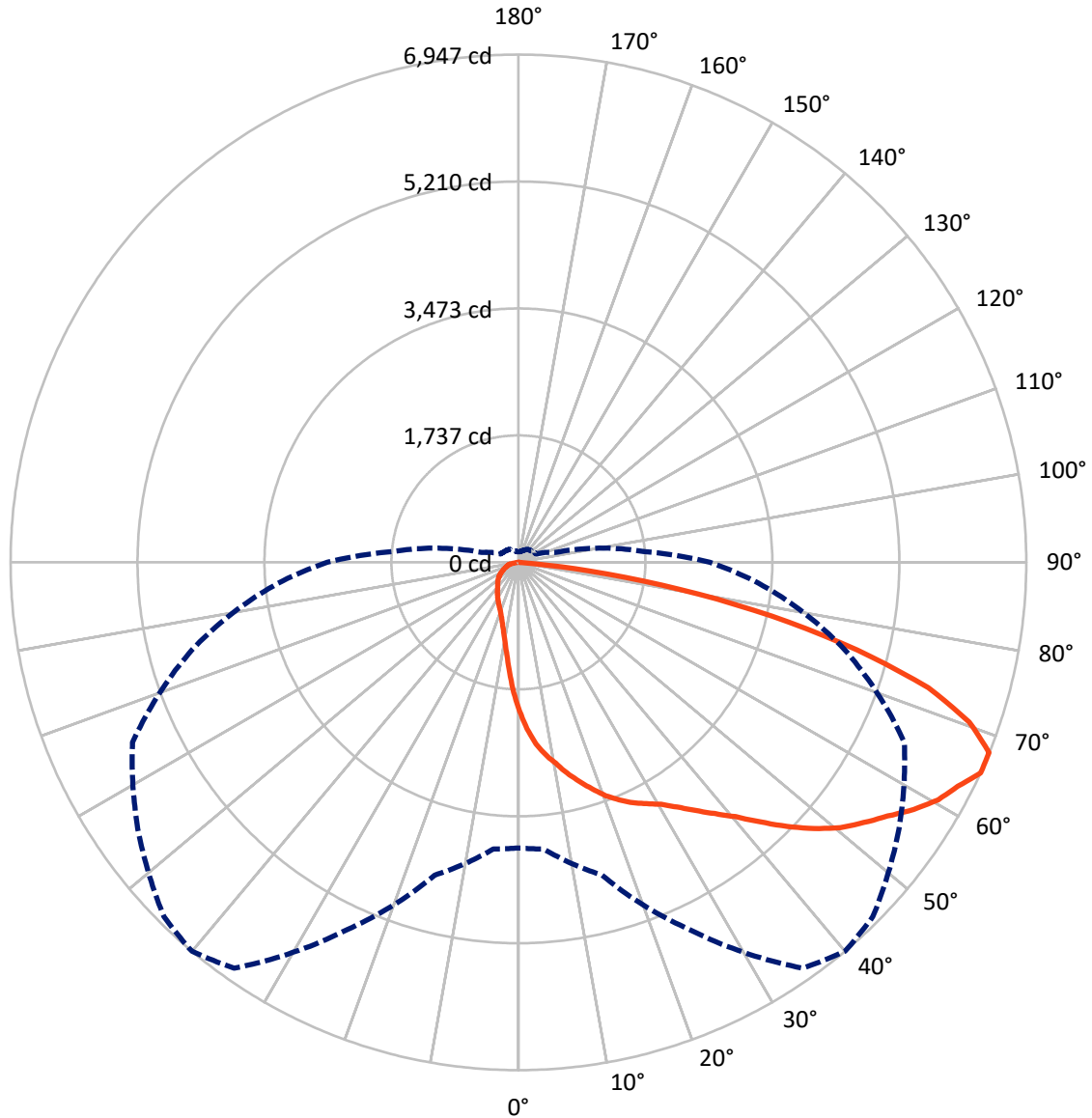
× Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 7.4 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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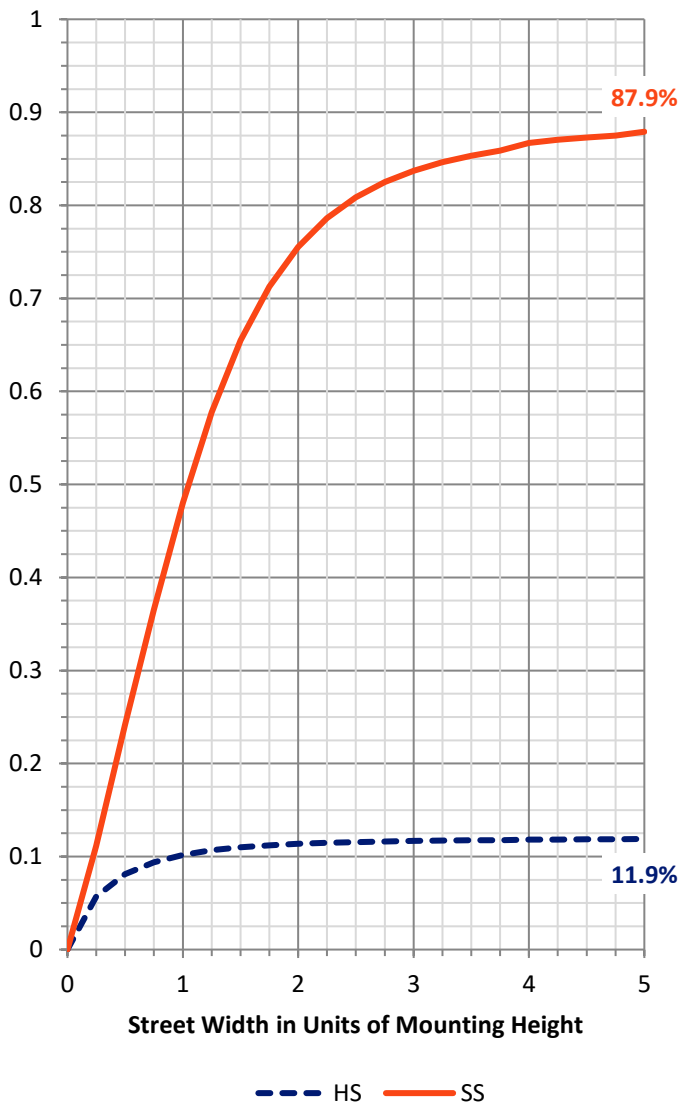
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1533.7	0.0	1533.7
	% Fixture	12.0	0.0	12.0
<b>Street Side</b>	Lumens	11276.6	0.0	11276.6
	% Fixture	88.0	0.0	88.0
<b>Total</b>	Lumens	12810.3	0.0	12810.3
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	190.6	1.5
10°-20°	573.2	4.5
20°-30°	985.9	7.7
30°-40°	1490.4	11.6
40°-50°	2179.3	17.0
50°-60°	2783.5	21.7
60°-70°	2777.9	21.7
70°-80°	1628.9	12.7
80°-90°	200.7	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°	12810.3	100.0
0°-180°	12810.3	100.0

**Coefficient of Utilization**



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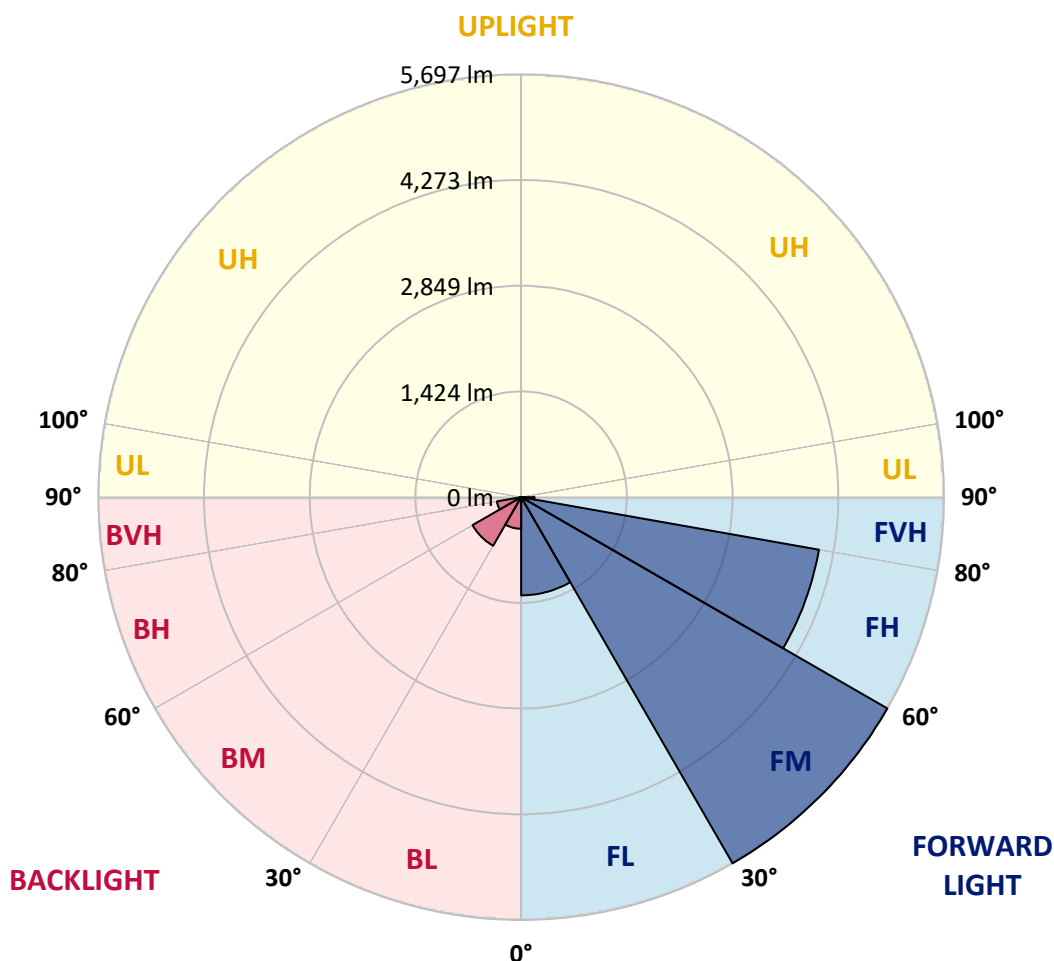
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1323.1	10.3			
FM	(30°-60°)	5697.4	44.5			
FH	(60°-80°)	4074.7	31.8			G2/5000
FVH	(80°-90°)	181.3	1.4			G2/225
BL	(0°-30°)	426.6	3.3	B1/500		
BM	(30°-60°)	755.7	5.9	B1/1000		
BH	(60°-80°)	332.0	2.6	B1/500		G1/500
BVH	(80°-90°)	19.3	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





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	2036.3	2036.3	2036.3	2036.3	2036.3	2036.3	2036.3	2036.3	2036.3	2036.3	2036.3
2.5°	2375.7	2364.8	2343.2	2325.1	2299.9	2278.2	2256.5	2216.8	2166.3	2122.9	2068.8
5°	2610.4	2592.3	2577.9	2556.2	2512.9	2494.8	2480.4	2397.3	2310.7	2220.4	2101.3
7.5°	2776.4	2790.9	2762.0	2729.5	2675.3	2653.7	2632.0	2549.0	2440.7	2310.7	2141.0
10°	2967.8	2971.4	2935.3	2895.6	2837.8	2794.5	2765.6	2664.5	2545.4	2401.0	2184.3
12.5°	3151.9	3151.9	3130.3	3072.5	2996.7	2957.0	2906.4	2790.9	2646.5	2476.8	2234.9
15°	3300.0	3307.2	3289.1	3245.8	3162.8	3108.6	3058.1	2924.5	2740.3	2563.4	2274.6
17.5°	3433.5	3429.9	3419.1	3379.4	3300.0	3256.6	3206.1	3058.1	2848.6	2632.0	2336.0
20°	3523.8	3523.8	3520.2	3498.5	3440.8	3408.3	3346.9	3191.6	2967.8	2733.1	2401.0
22.5°	3592.4	3588.8	3588.8	3592.4	3559.9	3527.4	3502.1	3346.9	3090.5	2819.8	2465.9
25°	3650.2	3646.6	3657.4	3664.6	3650.2	3642.9	3614.1	3494.9	3242.2	2920.9	2530.9
27.5°	3726.0	3736.8	3733.2	3733.2	3729.6	3736.8	3733.2	3632.1	3390.2	3029.2	2599.5
30°	3845.1	3863.2	3852.4	3837.9	3837.9	3841.5	3859.6	3794.6	3563.5	3162.8	2675.3
32.5°	4123.1	4105.1	4029.3	3978.7	3985.9	3989.6	4007.6	3971.5	3736.8	3314.4	2754.8
35°	4440.9	4419.2	4336.2	4220.6	4180.9	4166.5	4162.9	4141.2	3924.6	3476.9	2848.6
37.5°	4852.4	4859.7	4736.9	4570.8	4451.7	4361.4	4343.4	4296.4	4087.0	3624.9	2946.1
40°	5271.3	5242.4	5137.7	4975.2	4740.5	4574.4	4520.3	4455.3	4271.2	3780.1	3040.0
42.5°	5675.6	5621.5	5484.3	5307.4	5033.0	4852.4	4729.7	4646.7	4440.9	3949.8	3130.3
45°	6202.8	6047.5	5802.0	5643.1	5300.1	5152.1	5040.2	4856.1	4643.0	4119.5	3238.6
47.5°	6618.0	6318.3	6094.4	6025.8	5578.2	5441.0	5339.9	5083.5	4848.8	4310.9	3350.5
50°	6542.1	6358.0	6303.9	6242.5	5787.6	5704.5	5610.6	5343.5	5058.2	4513.1	3458.8
52.5°	6347.2	6368.8	6437.4	6332.7	5971.7	5913.9	5852.5	5621.5	5267.7	4679.1	3556.3
55°	6191.9	6235.3	6419.4	6386.9	6191.9	6126.9	6083.6	5895.9	5469.8	4830.8	3639.3
57.5°	5910.3	5874.2	6105.3	6480.8	6426.6	6376.1	6332.7	6184.7	5675.6	4939.1	3693.5
60°	5466.2	5332.6	5643.1	6365.2	6589.1	6596.3	6571.0	6401.3	5841.7	4939.1	3664.6
62.5°	4841.6	4715.3	5098.0	5978.9	6675.7	6744.3	6729.9	6477.2	5913.9	4830.8	3552.7
65°	3906.5	3935.4	4430.0	5542.0	6776.8	6946.5	6856.3	6354.4	5823.7	4621.4	3300.0
67.5°	3119.4	3206.1	3650.2	4975.2	6729.9	6942.9	6816.5	6007.8	5437.3	4328.9	2913.6
70°	2462.3	2520.1	2888.4	4209.8	6318.3	6542.1	6383.3	5477.1	4783.9	3877.6	2422.6
72.5°	1924.4	1978.5	2292.6	3368.6	5603.4	5863.4	5664.8	4762.2	3967.9	3289.1	1924.4
75°	1462.2	1501.9	1736.6	2595.9	4462.5	4787.5	4643.0	3812.6	3097.8	2603.1	1473.1
77.5°	942.3	996.5	1260.0	1819.7	3151.9	3541.9	3559.9	2848.6	2227.6	1881.0	1083.1
80°	624.6	646.3	808.7	1184.2	1938.8	2242.1	2346.8	1924.4	1422.5	1198.7	779.9
82.5°	260.0	288.8	386.3	595.7	971.2	974.8	1115.6	812.4	577.7	509.1	328.6
85°	7.2	14.4	10.8	28.9	25.3	39.7	46.9	65.0	46.9	50.5	50.5
87.5°	0.0	0.0	3.6	3.6	7.2	7.2	7.2	7.2	7.2	10.8	7.2
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-SA3B-840-U-T4W-HSS

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2036.3	2036.3	2036.3	2036.3	2036.3	2036.3	2036.3	2036.3	2036.3	2036.3	2036.3
2.5°	2043.5	2011.0	1946.0	1895.5	1841.3	1801.6	1765.5	1725.8	1700.5	1704.1	1678.9
5°	2043.5	1982.1	1852.2	1736.6	1631.9	1556.1	1473.1	1408.1	1361.1	1353.9	1375.6
7.5°	2054.3	1953.3	1758.3	1585.0	1440.6	1321.4	1234.8	1169.8	1137.3	1115.6	1112.0
10°	2065.2	1931.6	1671.6	1451.4	1270.9	1140.9	1065.1	992.9	956.8	953.2	942.3
12.5°	2072.4	1906.3	1592.2	1317.8	1130.1	1007.3	931.5	873.7	844.8	844.8	841.2
15°	2097.7	1899.1	1509.2	1216.7	1021.8	902.6	837.6	790.7	772.6	761.8	758.2
17.5°	2119.3	1884.7	1437.0	1115.6	924.3	819.6	758.2	725.7	707.6	700.4	696.8
20°	2151.8	1877.4	1368.4	1032.6	852.1	751.0	704.0	675.2	664.3	657.1	657.1
22.5°	2184.3	1870.2	1299.8	960.4	790.7	700.4	657.1	631.8	621.0	617.4	613.8
25°	2224.0	1866.6	1242.0	899.0	736.5	660.7	621.0	599.3	584.9	577.7	577.7
27.5°	2263.8	1870.2	1184.2	837.6	689.6	624.6	584.9	559.6	548.8	534.3	538.0
30°	2317.9	1873.8	1137.3	787.1	649.9	588.5	552.4	519.9	505.5	498.2	498.2
32.5°	2372.1	1888.3	1090.4	740.1	610.2	559.6	516.3	487.4	469.4	465.7	462.1
35°	2429.8	1899.1	1047.0	700.4	577.7	527.1	483.8	454.9	440.5	436.9	436.9
37.5°	2494.8	1917.2	1014.5	664.3	545.2	494.6	454.9	426.0	415.2	411.6	411.6
40°	2563.4	1946.0	989.3	631.8	519.9	465.7	429.6	404.4	397.1	393.5	393.5
42.5°	2632.0	1971.3	967.6	606.6	494.6	440.5	411.6	386.3	375.5	375.5	375.5
45°	2697.0	1989.4	945.9	581.3	469.4	422.4	389.9	368.3	357.4	357.4	357.4
47.5°	2754.8	2007.4	913.4	556.0	444.1	397.1	371.9	350.2	339.4	339.4	339.4
50°	2816.2	2018.2	877.3	523.5	418.8	379.1	353.8	328.6	321.3	317.7	317.7
52.5°	2866.7	2018.2	830.4	491.0	389.9	353.8	332.2	310.5	299.7	292.4	292.4
55°	2902.8	2018.2	779.9	451.3	361.0	332.2	310.5	288.8	274.4	263.6	263.6
57.5°	2924.5	2007.4	722.1	404.4	332.2	303.3	288.8	263.6	234.7	213.0	205.8
60°	2906.4	1974.9	660.7	353.8	299.7	278.0	267.2	234.7	195.0	184.1	184.1
62.5°	2830.6	1899.1	599.3	310.5	274.4	252.7	241.9	205.8	176.9	166.1	166.1
65°	2617.6	1715.0	523.5	270.8	245.5	231.1	216.6	184.1	158.9	144.4	144.4
67.5°	2307.1	1480.3	436.9	238.3	220.2	209.4	198.6	166.1	140.8	126.4	126.4
70°	1870.2	1195.1	371.9	209.4	195.0	187.7	176.9	151.6	122.8	111.9	111.9
72.5°	1469.5	938.7	310.5	187.7	180.5	166.1	158.9	133.6	111.9	101.1	101.1
75°	1094.0	700.4	274.4	166.1	166.1	148.0	144.4	119.1	97.5	90.3	90.3
77.5°	805.1	519.9	238.3	144.4	144.4	130.0	122.8	104.7	90.3	83.0	83.0
80°	545.2	353.8	176.9	108.3	108.3	104.7	97.5	90.3	75.8	68.6	65.0
82.5°	231.1	148.0	86.7	54.2	50.5	39.7	32.5	25.3	25.3	21.7	21.7
85°	39.7	18.1	18.1	14.4	10.8	10.8	10.8	7.2	7.2	7.2	7.2
87.5°	7.2	7.2	7.2	7.2	7.2	7.2	3.6	3.6	3.6	3.6	3.6
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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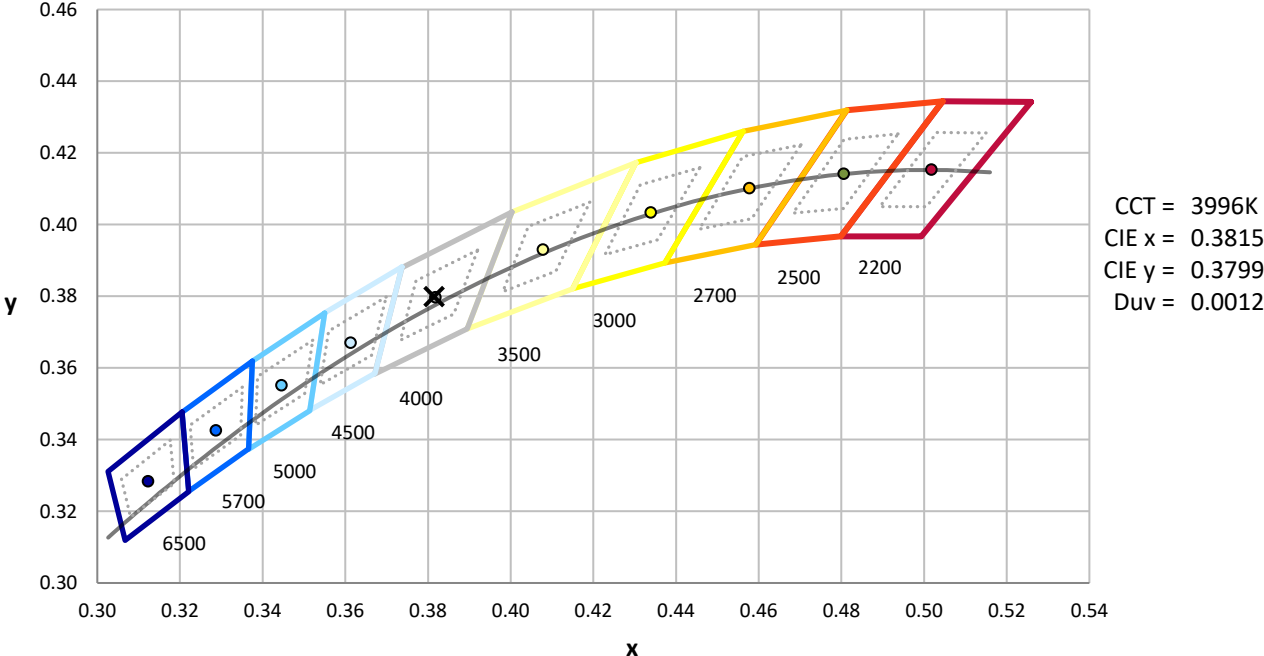
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085	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)