

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: P871187

Luminaire Tested: **EMM2-HSN-SA3B-840-U-T3**

Issue Date: 09/05/2024



**Test Information**

Test Method: LM-79-08  
Report Number: P871187  
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-T3  
Description: EPIC MODERN SHORT HOUSING DISCRETE LED ARRAYS 150W 80CRI 4000K  
FITXURE w/ TYPE III DISTRIBUTION OPTIC  
Light Source: (30) 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

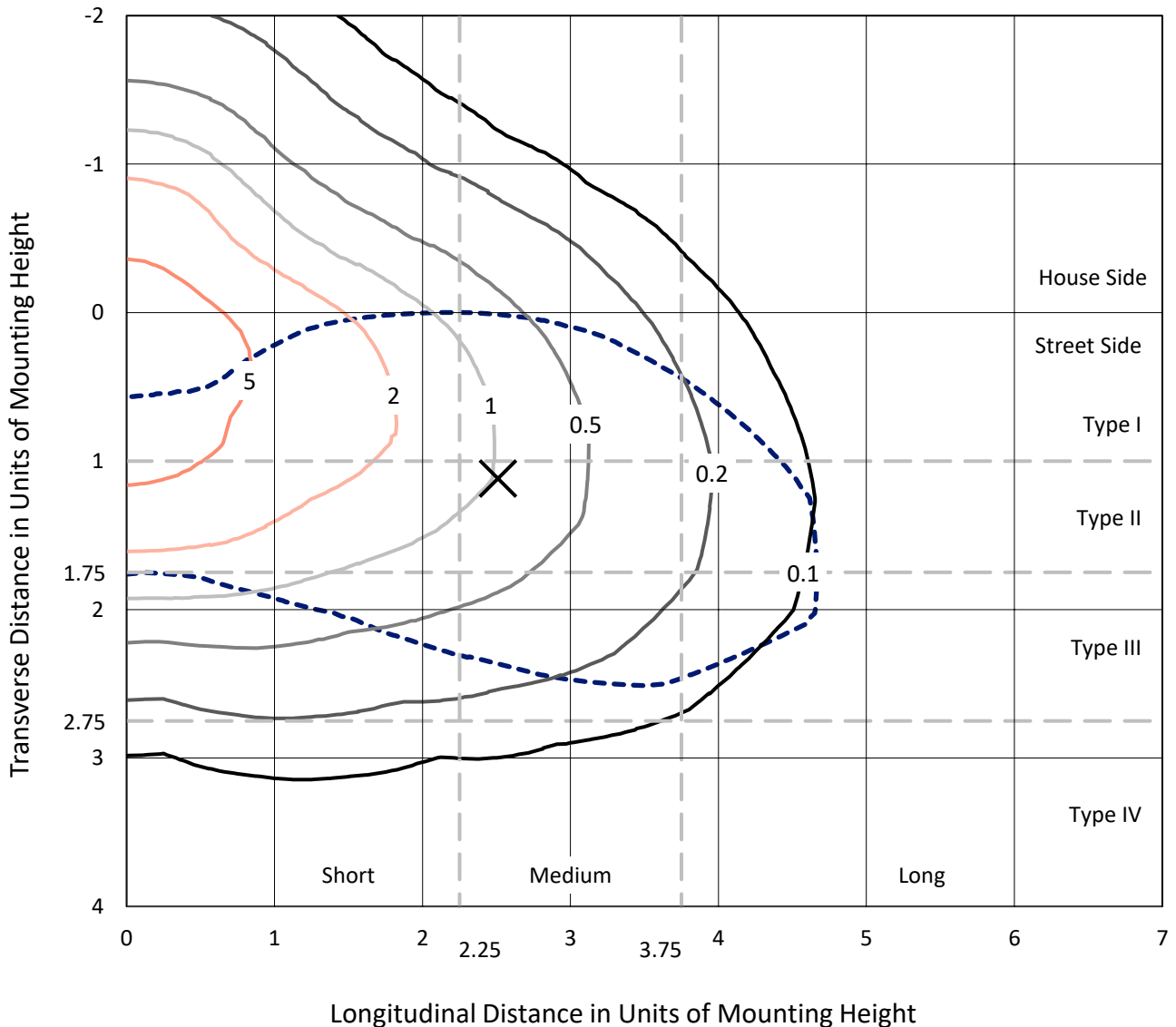
Lumens per Lamp: N/A  
Luminaire Lumens: 18172 lumens  
Efficiency: N/A  
Efficacy: 135.6 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 0.33' x H: 0')  
IES Classification: Type III - Medium  
BUG Rating: B3 - U0 - G3

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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 CATALOG NUMBER: EMM2-HSN-SA3B-840-U-T3

### Iso-Footcandle Lines of Horizontal Illumination

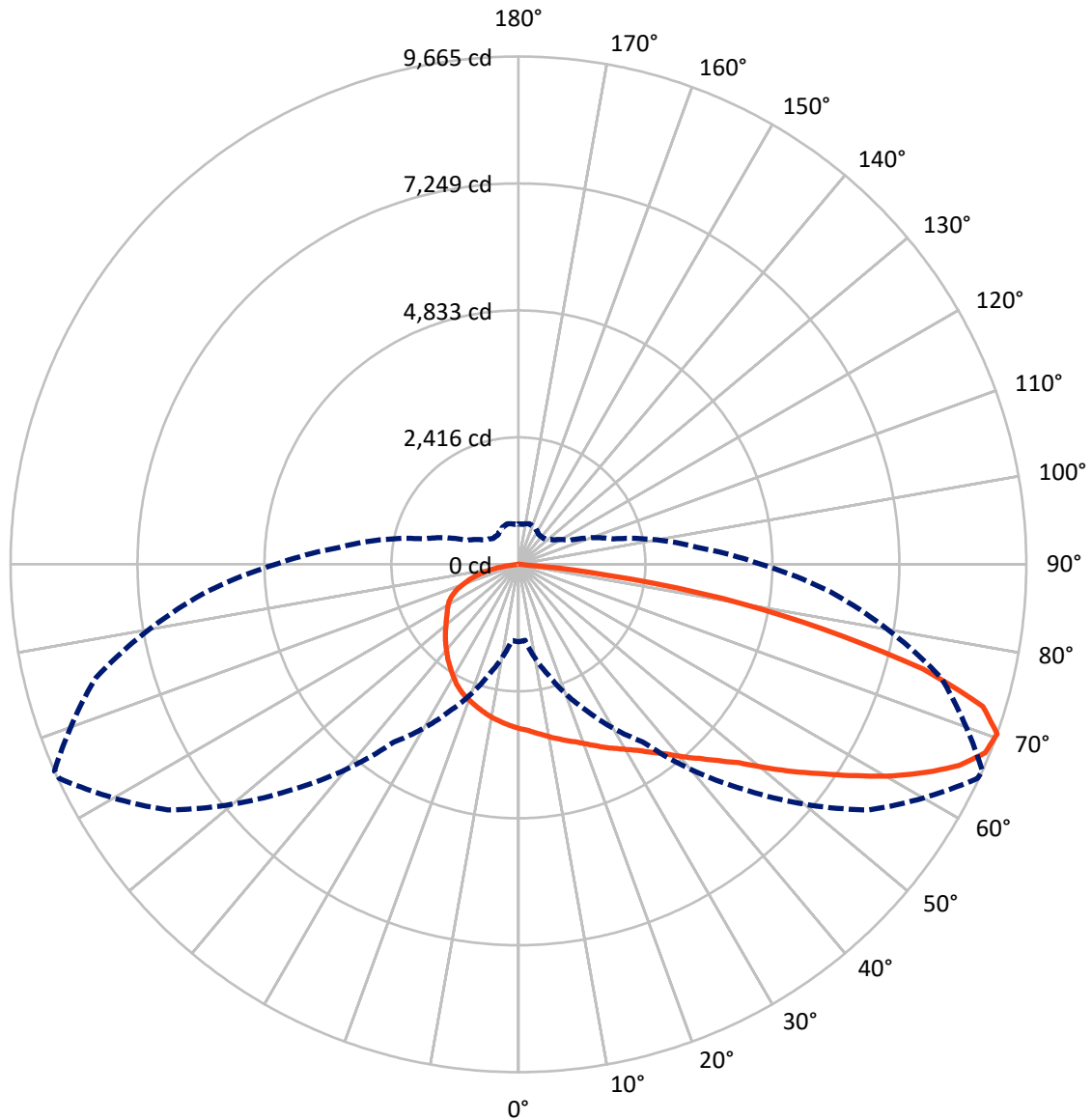
× Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 8.4 fc  
 Type III - Medium - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 66-Deg Lateral      - - - Horizontal Cone Through 70-Deg Vertical

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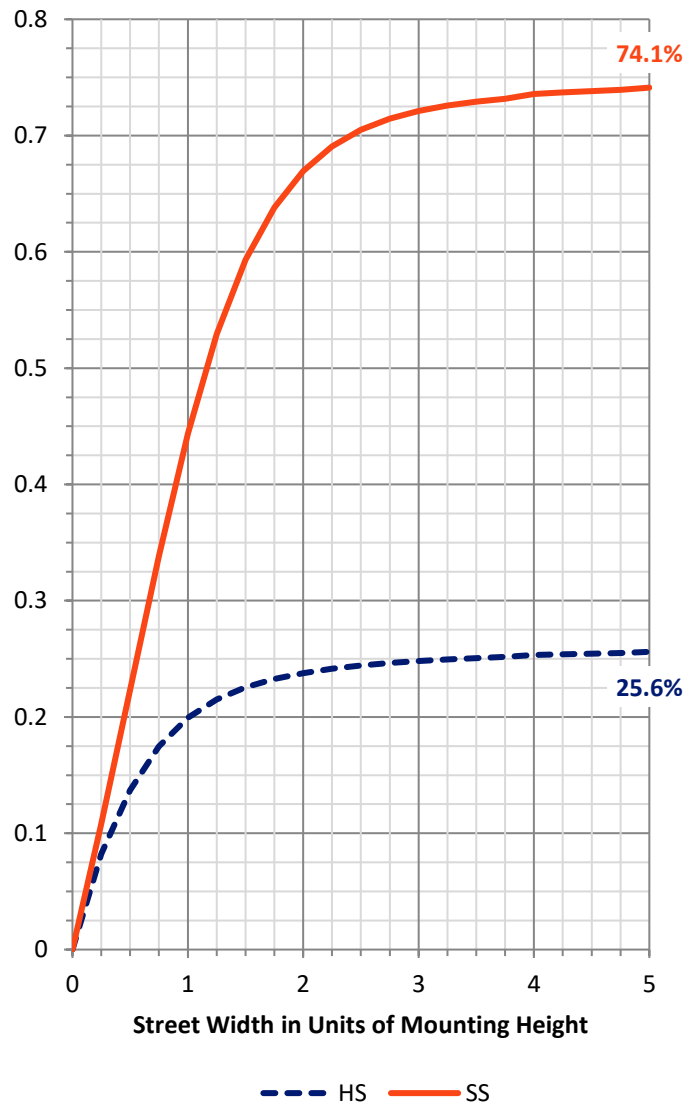
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	4683.1	0.0	4683.1
	% Fixture	25.8	0.0	25.8
<b>Street Side</b>	Lumens	13488.9	0.0	13488.9
	% Fixture	74.2	0.0	74.2
<b>Total</b>	Lumens	18172.0	0.0	18172.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	299.2	1.6
10°-20°	891.2	4.9
20°-30°	1497.0	8.2
30°-40°	2255.3	12.4
40°-50°	3061.8	16.8
50°-60°	3638.4	20.0
60°-70°	3713.2	20.4
70°-80°	2483.6	13.7
80°-90°	332.3	1.8
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°	18172.0	100.0
0°-180°	18172.0	100.0



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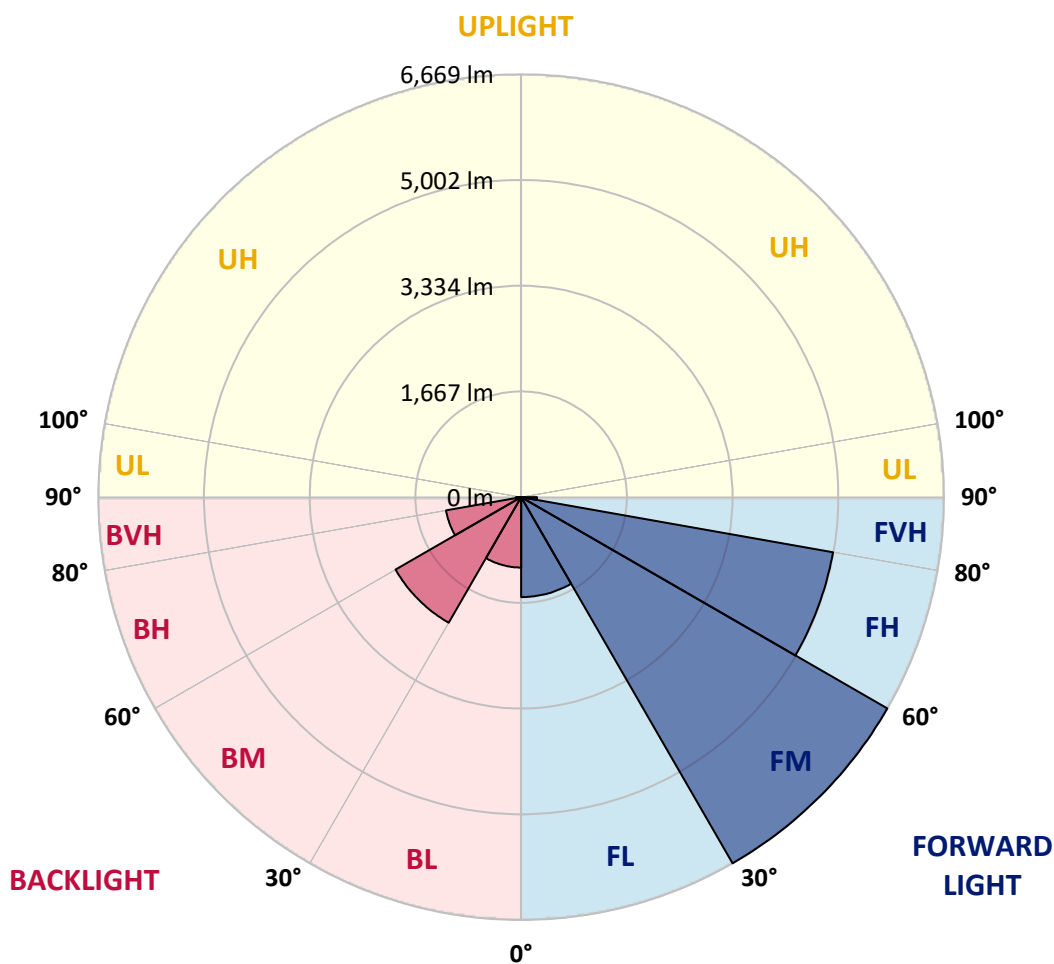
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1577.0	8.7			
FM (30°-60°)	6668.8	36.7			
FH (60°-80°)	4994.3	27.5			G2/5000
FVH (80°-90°)	248.9	1.4			G3/500
BL (0°-30°)	1110.4	6.1	B3/2500		
BM (30°-60°)	2286.7	12.6	B2/2500		
BH (60°-80°)	1202.5	6.6	B3/2500		G3/2500
BVH (80°-90°)	83.4	0.5			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G3**

Type III Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	66°	75°	85°
0°	3126.6	3126.6	3126.6	3126.6	3126.6	3126.6	3126.6	3126.6	3126.6	3126.6	3126.6
2.5°	3238.5	3224.1	3213.2	3220.5	3198.8	3206.0	3180.7	3162.7	3159.1	3151.9	3144.6
5°	3339.6	3339.6	3321.5	3321.5	3296.3	3292.7	3256.6	3216.8	3216.8	3191.6	3162.7
7.5°	3447.9	3440.7	3419.0	3415.4	3386.5	3379.3	3339.6	3278.2	3274.6	3227.7	3184.4
10°	3523.7	3527.3	3512.9	3512.9	3491.2	3473.2	3415.4	3350.4	3343.2	3281.8	3213.2
12.5°	3581.5	3588.7	3585.1	3585.1	3567.1	3567.1	3502.1	3415.4	3408.2	3328.8	3231.3
15°	3642.9	3639.3	3650.1	3653.7	3646.5	3635.7	3588.7	3487.6	3484.0	3379.3	3256.6
17.5°	3697.0	3693.4	3697.0	3715.1	3718.7	3718.7	3671.8	3567.1	3552.6	3440.7	3278.2
20°	3729.5	3736.7	3751.2	3772.8	3783.7	3812.6	3772.8	3660.9	3646.5	3505.7	3325.2
22.5°	3852.3	3830.6	3841.4	3855.9	3870.3	3910.0	3873.9	3758.4	3747.6	3603.2	3379.3
25°	4061.7	4061.7	4036.4	4011.1	3993.1	4011.1	3982.2	3870.3	3863.1	3689.8	3440.7
27.5°	4426.3	4426.3	4372.2	4278.3	4159.2	4126.7	4105.0	3989.5	3967.8	3783.7	3480.4
30°	4888.5	4902.9	4805.4	4646.6	4426.3	4281.9	4227.8	4101.4	4090.6	3877.5	3541.8
32.5°	5383.1	5412.0	5339.8	5108.7	4747.6	4466.0	4379.4	4249.4	4224.1	3989.5	3621.2
35°	5827.2	5856.0	5758.6	5541.9	5079.8	4733.2	4559.9	4411.9	4397.4	4133.9	3740.4
37.5°	6188.2	6195.4	6134.0	5870.5	5357.8	4957.0	4783.8	4606.8	4578.0	4307.2	3866.7
40°	6570.9	6599.8	6538.4	6213.5	5610.5	5198.9	5007.6	4841.5	4816.2	4487.7	3985.9
42.5°	6971.6	6968.0	6968.0	6509.5	5863.3	5401.1	5249.5	5065.4	5050.9	4671.8	4115.8
45°	7217.1	7231.6	7191.9	6686.4	6235.1	5610.5	5484.2	5350.6	5325.3	4928.2	4285.5
47.5°	7278.5	7246.0	7065.5	6823.6	6653.9	5827.2	5780.2	5700.8	5643.0	5209.8	4494.9
50°	7195.5	7144.9	7040.2	6885.0	6809.2	6087.1	6079.9	6119.6	6079.9	5552.8	4736.8
52.5°	6885.0	6877.8	6859.7	6895.8	6773.1	6292.9	6419.3	6556.4	6549.2	5903.0	4989.5
55°	6231.5	6278.4	6495.1	6722.5	6635.9	6433.7	6798.3	7061.9	7033.0	6314.6	5249.5
57.5°	5563.6	5610.5	5888.5	6430.1	6502.3	6585.3	7224.4	7636.0	7589.0	6762.2	5487.8
60°	4982.3	4931.8	5209.8	5989.6	6314.6	6722.5	7646.8	8217.2	8177.5	7209.9	5733.3
62.5°	4061.7	4112.2	4556.3	5347.0	6051.0	6809.2	7993.4	8744.3	8719.1	7621.5	5931.9
65°	3213.2	3144.6	3812.6	4671.8	5596.1	6780.3	8293.0	9239.0	9220.9	8025.9	6083.5
67.5°	2184.3	2137.3	3018.3	4000.3	4978.7	6549.2	8361.6	9571.1	9578.3	8264.2	6123.2
70°	1473.0	1451.4	2169.8	3076.0	4123.1	6051.0	8148.6	9639.7	9665.0	8325.5	5946.3
72.5°	1086.7	1083.1	1588.6	2195.1	3068.8	5108.7	7567.4	9192.0	9239.0	7892.3	5426.4
75°	855.7	866.5	1133.7	1559.7	2047.1	3780.1	6365.1	7881.5	7953.7	6816.4	4505.8
77.5°	700.4	700.4	794.3	1119.2	1368.3	2346.7	4578.0	5769.4	5913.8	5260.3	3469.6
80°	566.8	577.7	588.5	779.8	906.2	1339.5	2664.5	3848.7	3953.4	3664.5	2505.6
82.5°	310.5	332.2	321.3	404.4	454.9	621.0	1057.8	1556.1	1714.9	1527.2	1137.3
85°	21.7	14.4	25.3	32.5	39.7	61.4	83.0	115.5	108.3	155.2	79.4
87.5°	3.6	3.6	3.6	7.2	7.2	10.8	14.4	14.4	14.4	14.4	14.4
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: P871187

CATALOG NUMBER: EMM2-HSN-SA3B-840-U-T3

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3126.6	3126.6	3126.6	3126.6	3126.6	3126.6	3126.6	3126.6	3126.6	3126.6	3126.6
2.5°	3141.0	3123.0	3094.1	3086.9	3076.0	3061.6	3047.2	3025.5	3018.3	3025.5	3032.7
5°	3144.6	3119.4	3072.4	3043.5	3014.7	2989.4	2960.5	2931.6	2913.6	2917.2	2931.6
7.5°	3155.5	3119.4	3047.2	3000.2	2953.3	2913.6	2866.6	2834.1	2812.5	2816.1	2826.9
10°	3169.9	3119.4	3032.7	2953.3	2888.3	2830.5	2783.6	2743.9	2722.2	2718.6	2722.2
12.5°	3173.5	3115.8	3000.2	2902.7	2823.3	2747.5	2697.0	2660.8	2639.2	2628.4	2635.6
15°	3184.4	3104.9	2967.7	2848.6	2751.1	2671.7	2610.3	2567.0	2552.5	2545.3	2541.7
17.5°	3198.8	3101.3	2938.8	2794.4	2678.9	2588.6	2534.5	2491.2	2473.1	2465.9	2473.1
20°	3220.5	3104.9	2906.4	2740.3	2613.9	2523.7	2462.3	2419.0	2404.5	2400.9	2397.3
22.5°	3249.3	3112.1	2881.1	2689.7	2541.7	2451.4	2390.1	2361.2	2350.4	2354.0	2354.0
25°	3278.2	3119.4	2845.0	2621.1	2465.9	2372.0	2328.7	2307.0	2314.3	2328.7	2328.7
27.5°	3303.5	3115.8	2794.4	2548.9	2375.6	2289.0	2256.5	2260.1	2278.1	2303.4	2307.0
30°	3336.0	3115.8	2740.3	2458.7	2274.5	2191.5	2184.3	2213.2	2242.0	2267.3	2267.3
32.5°	3386.5	3137.4	2697.0	2368.4	2169.8	2104.9	2137.3	2177.1	2209.6	2234.8	2242.0
35°	3473.2	3184.4	2668.1	2278.1	2068.7	2021.8	2083.2	2148.2	2169.8	2187.9	2191.5
37.5°	3556.2	3227.7	2632.0	2191.5	1964.0	1946.0	2029.0	2097.6	2101.2	2112.1	2112.1
40°	3635.7	3260.2	2585.0	2097.6	1863.0	1863.0	1960.4	2018.2	2011.0	2000.1	2003.8
42.5°	3722.3	3278.2	2530.9	2011.0	1779.9	1779.9	1859.3	1909.9	1906.3	1920.7	1931.6
45°	3827.0	3314.3	2458.7	1931.6	1693.3	1678.8	1743.8	1787.1	1841.3	1906.3	1924.3
47.5°	3971.4	3364.9	2400.9	1844.9	1621.1	1570.5	1595.8	1686.0	1747.4	1801.6	1808.8
50°	4123.1	3437.1	2350.4	1754.6	1534.4	1444.2	1465.8	1566.9	1603.0	1624.7	1635.5
52.5°	4285.5	3494.8	2307.0	1678.8	1444.2	1314.2	1343.1	1440.5	1465.8	1483.9	1487.5
55°	4426.3	3541.8	2252.9	1606.6	1346.7	1191.4	1227.5	1321.4	1346.7	1368.3	1368.3
57.5°	4574.3	3585.1	2216.8	1545.2	1242.0	1090.3	1115.6	1209.5	1245.6	1252.8	1263.6
60°	4697.1	3624.8	2184.3	1487.5	1144.5	1000.1	1018.1	1101.2	1144.5	1148.1	1155.3
62.5°	4783.8	3650.1	2166.2	1415.3	1047.0	909.8	924.3	1007.3	1057.8	1068.7	1072.3
65°	4837.9	3664.5	2133.7	1321.4	964.0	834.0	834.0	917.0	967.6	992.9	1000.1
67.5°	4812.6	3639.3	2047.1	1213.1	888.2	758.2	754.6	837.6	880.9	895.4	899.0
70°	4617.7	3491.2	1870.2	1079.5	808.7	689.6	682.4	758.2	797.9	765.4	769.0
72.5°	4220.5	3155.5	1628.3	945.9	725.7	624.6	617.4	682.4	686.0	686.0	682.4
75°	3556.2	2577.8	1299.7	805.1	639.0	556.0	559.6	610.2	613.8	631.8	621.0
77.5°	2725.8	1909.9	1014.5	642.6	541.6	494.6	512.7	530.7	556.0	581.3	556.0
80°	1982.1	1317.8	704.0	480.2	418.8	418.8	426.0	444.1	480.2	505.5	480.2
82.5°	848.4	581.3	324.9	238.3	205.8	202.2	205.8	205.8	252.7	259.9	227.5
85°	65.0	54.2	39.7	39.7	32.5	18.1	18.1	14.4	10.8	10.8	10.8
87.5°	14.4	10.8	10.8	10.8	7.2	7.2	7.2	7.2	7.2	7.2	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



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**

$\lambda$ (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**

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 ( $R_{f,i}$ )**

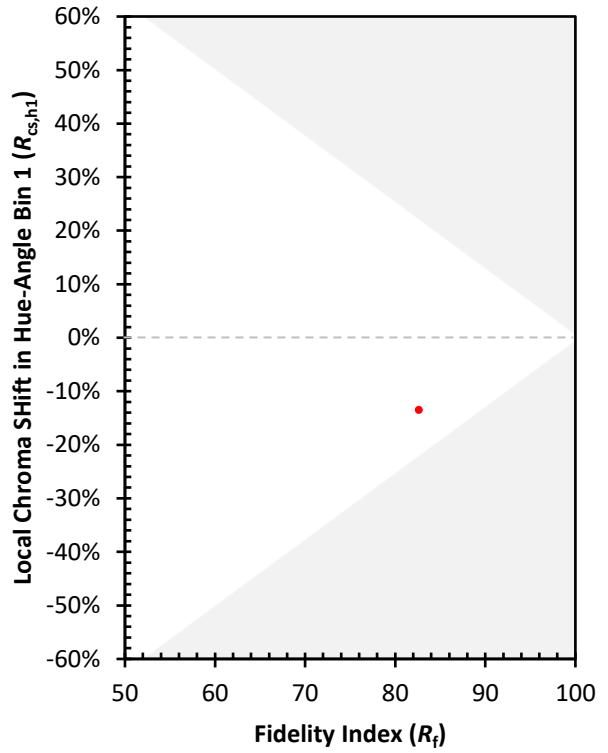
CES01 = 85	CES26 = 79	CES51 = 94	CES76 = 72
CES02 = 61	CES27 = 93	CES52 = 94	CES77 = 82
CES03 = 31	CES28 = 90	CES53 = 88	CES78 = 71
CES04 = 69	CES29 = 83	CES54 = 89	CES79 = 91
CES05 = 48	CES30 = 95	CES55 = 88	CES80 = 88
CES06 = 50	CES31 = 86	CES56 = 84	CES81 = 80
CES07 = 40	CES32 = 78	CES57 = 84	CES82 = 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)