

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: P871080

Luminaire Tested: **EMM2-HSN-SA2C-840-U-T2R-HSS**

Issue Date: 09/05/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P871080  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 09/05/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: EMM2-HSN-SA2C-840-U-T2R-HSS  
Description: EPIC MODERN SHORT HOUSING DISCRETE LED ARRAYS 120W 80CRI 4000K  
FITXURE w/ TYPE II ROADWAY DISTRIBUTION OPTIC AND HOUSE SIDE SHIELD  
Light Source: (20) 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

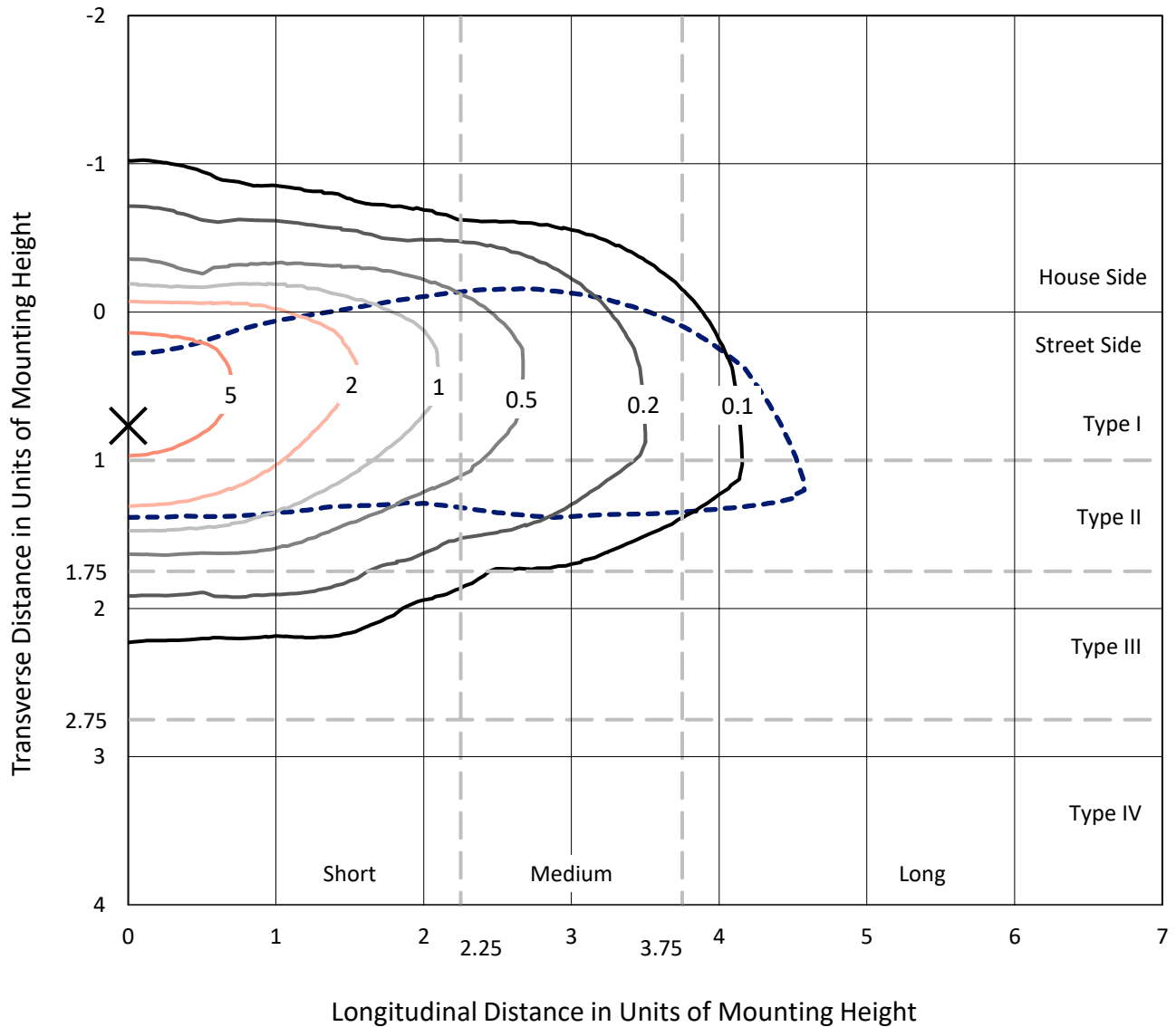
Lumens per Lamp: N/A  
Luminaire Lumens: 9329.4 lumens  
Efficiency: N/A  
Efficacy: 92.4 lumens/watt  
Luminous Opening: Rectangular (W 0.67' x L: 0.33' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B1 - U0 - G2

Input Watts (W): 101  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: 0.99  
Total Harmonic Distortion (THDi): 9.45%  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT

REPORT NUMBER: P871080  
 CATALOG NUMBER: EMM2-HSN-SA2C-840-U-T2R-HSS

### Iso-Footcandle Lines of Horizontal Illumination

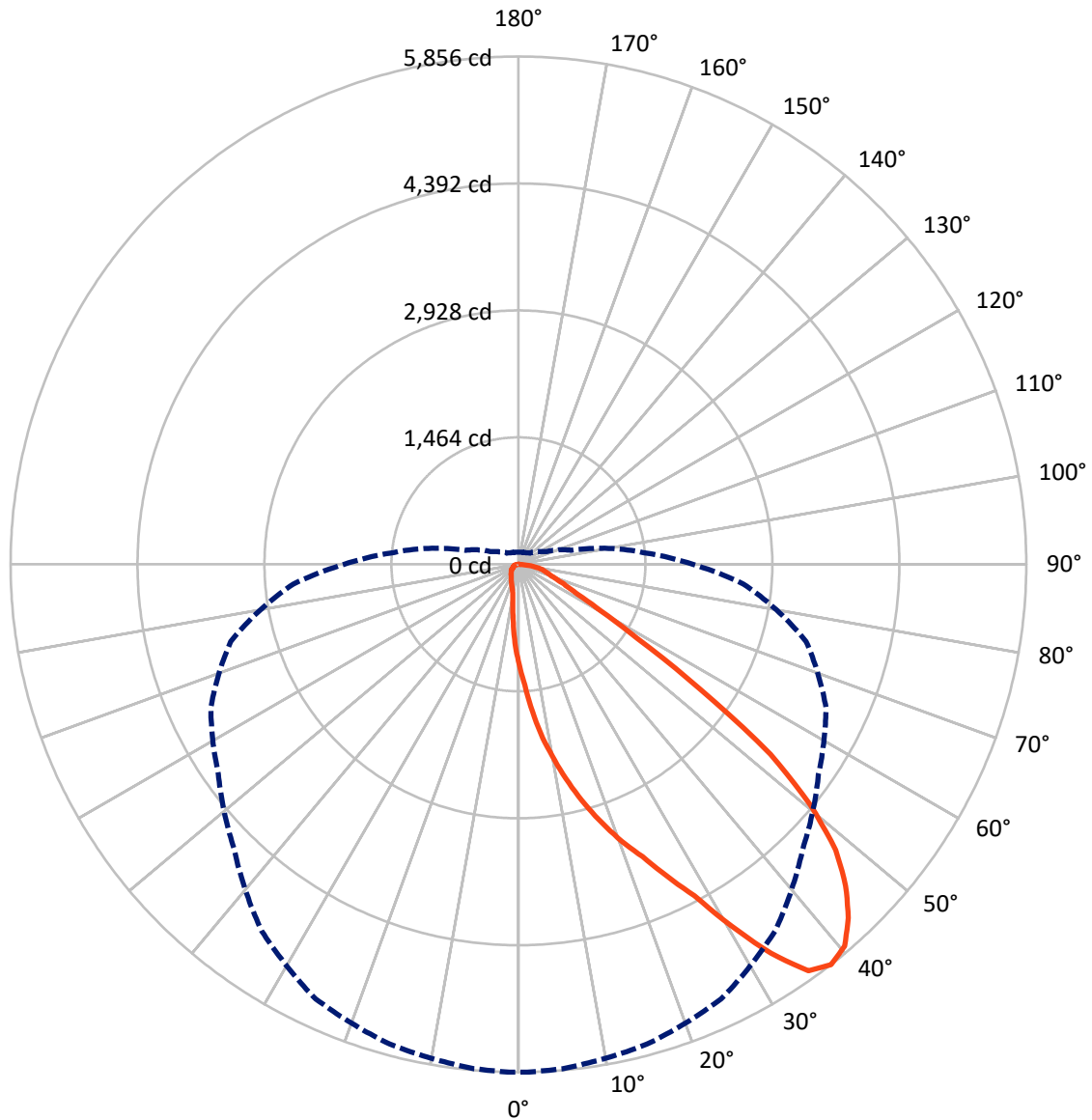
× Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 8 fc  
 Type II - Short - N/A

REPORT NUMBER: P871080  
CATALOG NUMBER: EMM2-HSN-SA2C-840-U-T2R-HSS

### Luminous Intensity Polar Plot



— Vertical Plane Through 0-Deg Lateral      - - - Horizontal Cone Through 37.5-Deg Vertical

REPORT NUMBER: P871080

CATALOG NUMBER: EMM2-HSN-SA2C-840-U-T2R-HSS

**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1112.7	0.0	1112.7
	% Fixture	11.9	0.0	11.9
<b>Street Side</b>	Lumens	8216.7	0.0	8216.7
	% Fixture	88.1	0.0	88.1
<b>Total</b>	Lumens	9329.4	0.0	9329.4
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	116.0	1.2
10°-20°	405.4	4.3
20°-30°	836.5	9.0
30°-40°	1471.8	15.8
40°-50°	1998.4	21.4
50°-60°	1979.9	21.2
60°-70°	1524.3	16.3
70°-80°	884.7	9.5
80°-90°	112.5	1.2
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°	9329.4	100.0
0°-180°	9329.4	100.0



REPORT NUMBER: P871080

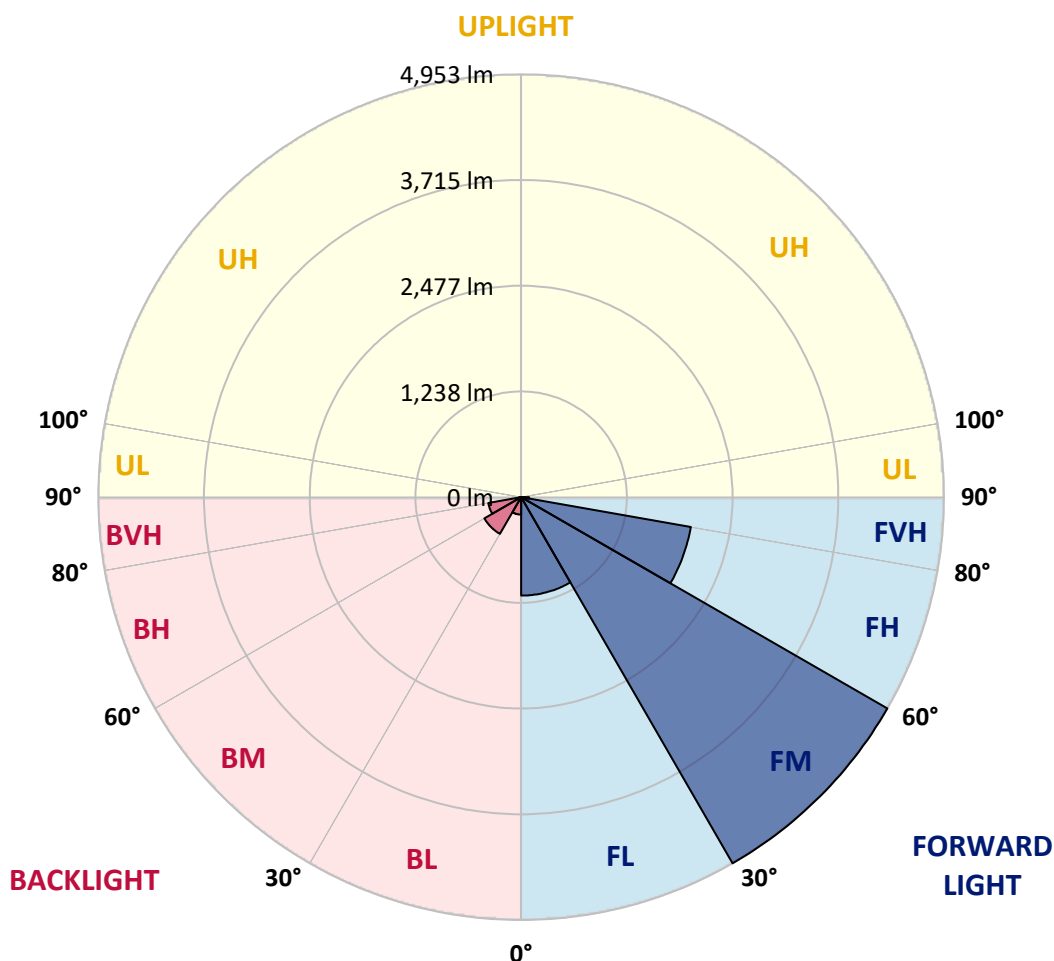
CATALOG NUMBER: EMM2-HSN-SA2C-840-U-T2R-HSS

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1153.3	12.4			
FM	(30°-60°)	4953.1	53.1			
FH	(60°-80°)	2018.5	21.6			G2/5000
FVH	(80°-90°)	91.8	1.0			G1/100
BL	(0°-30°)	204.6	2.2	B1/500		
BM	(30°-60°)	497.0	5.3	B1/1000		
BH	(60°-80°)	390.4	4.2	B1/500		G1/500
BVH	(80°-90°)	20.7	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 II Short





REPORT NUMBER: P871080

CATALOG NUMBER: EMM2-HSN-SA2C-840-U-T2R-HSS

**CANDELA DISTRIBUTION (FULL):**

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	1156.0	1156.0	1156.0	1156.0	1156.0	1156.0	1156.0	1156.0	1156.0	1156.0	1156.0
2.5°	1393.0	1413.8	1398.2	1385.2	1366.9	1348.7	1322.7	1294.0	1257.6	1213.3	1174.3
5°	1708.0	1718.4	1713.2	1705.4	1648.1	1593.5	1538.8	1471.1	1377.4	1294.0	1205.5
7.5°	2023.1	2017.9	2004.8	1981.4	1929.3	1866.9	1767.9	1656.0	1523.2	1377.4	1239.4
10°	2299.1	2306.9	2296.5	2260.0	2194.9	2109.0	1989.2	1861.6	1682.0	1478.9	1286.2
12.5°	2588.1	2593.3	2593.3	2515.2	2470.9	2338.1	2210.5	2038.7	1838.2	1603.9	1340.9
15°	2871.9	2861.5	2861.5	2809.4	2731.3	2582.9	2439.7	2231.4	2004.8	1721.0	1403.4
17.5°	3142.7	3147.9	3124.4	3067.2	2991.6	2848.4	2671.4	2442.3	2168.9	1861.6	1468.5
20°	3410.8	3395.2	3384.8	3327.5	3246.8	3077.6	2908.3	2648.0	2361.6	2020.5	1559.6
22.5°	3660.8	3668.6	3642.6	3551.4	3475.9	3322.3	3129.6	2890.1	2564.6	2179.3	1658.6
25°	3983.7	3957.6	3981.1	3871.7	3754.5	3572.3	3353.6	3116.6	2786.0	2374.6	1780.9
27.5°	4327.3	4343.0	4329.9	4210.2	4051.4	3806.6	3577.5	3324.9	3009.9	2559.4	1918.9
30°	4840.3	4832.5	4835.1	4655.4	4392.4	4100.8	3819.6	3543.6	3233.8	2786.0	2080.4
32.5°	5348.0	5376.6	5306.3	5147.5	4845.5	4405.5	4061.8	3754.5	3449.9	2981.2	2244.4
35°	5756.8	5749.0	5720.3	5543.3	5243.8	4816.8	4337.8	3988.9	3679.0	3220.8	2426.6
37.5°	5855.7	5855.7	5837.5	5728.1	5530.3	5160.5	4637.2	4223.2	3913.4	3434.3	2603.7
40°	5790.6	5777.6	5767.2	5694.3	5587.5	5368.8	4952.2	4465.3	4163.3	3710.3	2799.0
42.5°	5577.1	5579.7	5566.7	5525.0	5467.8	5384.4	5147.5	4723.1	4408.1	3970.6	2991.6
45°	5290.7	5295.9	5280.3	5275.1	5246.4	5246.4	5191.8	4926.2	4639.8	4236.2	3202.5
47.5°	4923.6	4921.0	4913.2	4900.2	4957.4	5019.9	5069.4	5040.8	4845.5	4522.6	3392.6
50°	4363.8	4358.6	4382.0	4447.1	4587.7	4725.7	4871.5	5006.9	4993.9	4788.2	3621.7
52.5°	3637.4	3603.5	3629.6	3830.0	4119.0	4426.3	4632.0	4845.5	5069.4	5069.4	3848.3
55°	2543.8	2572.5	2588.1	2882.3	3452.5	3981.1	4343.0	4619.0	5040.8	5293.3	4098.2
57.5°	1619.5	1629.9	1676.8	1994.4	2663.6	3324.9	3965.4	4418.5	4934.0	5480.8	4348.2
60°	1090.9	1054.5	1090.9	1273.2	1916.3	2608.9	3410.8	4165.9	4780.4	5616.2	4624.2
62.5°	770.7	768.1	778.5	885.3	1366.9	1960.6	2715.7	3824.8	4658.0	5624.0	4829.9
65°	622.3	604.1	611.9	671.8	916.5	1437.2	1991.8	3207.8	4548.7	5486.0	4931.4
67.5°	499.9	492.1	497.3	536.4	687.4	1080.5	1403.4	2439.7	4316.9	5251.7	4874.1
70°	408.8	411.4	414.0	453.0	546.8	817.6	1002.4	1674.2	3822.2	4986.1	4616.4
72.5°	354.1	354.1	356.7	382.7	458.3	648.3	757.7	1088.3	3093.2	4699.7	4142.5
75°	312.4	312.4	312.4	335.9	390.6	520.7	588.4	744.7	2221.0	4168.5	3426.5
77.5°	270.8	273.4	273.4	294.2	335.9	406.2	453.0	515.5	1416.4	3220.8	2593.3
80°	208.3	208.3	210.9	234.3	286.4	317.7	333.3	364.5	744.7	2023.1	1645.5
82.5°	145.8	148.4	148.4	151.0	192.7	195.3	179.7	182.3	270.8	671.8	624.9
85°	15.6	18.2	20.8	20.8	33.8	41.7	44.3	41.7	44.3	78.1	78.1
87.5°	0.0	0.0	0.0	0.0	2.6	5.2	5.2	7.8	7.8	7.8	7.8
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: P871080

CATALOG NUMBER: EMM2-HSN-SA2C-840-U-T2R-HSS

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1156.0	1156.0	1156.0	1156.0	1156.0	1156.0	1156.0	1156.0	1156.0	1156.0	1156.0
2.5°	1153.4	1135.2	1096.2	1062.3	1031.1	1005.0	986.8	963.4	945.1	945.1	955.6
5°	1161.2	1119.6	1038.9	963.4	903.5	846.2	794.1	760.3	734.2	718.6	718.6
7.5°	1171.7	1109.2	986.8	872.2	778.5	687.4	606.7	567.6	528.6	515.5	518.1
10°	1192.5	1104.0	939.9	791.5	650.9	536.4	458.3	416.6	395.8	385.3	385.3
12.5°	1215.9	1104.0	890.5	700.4	536.4	419.2	372.3	341.1	330.7	325.5	320.3
15°	1247.2	1109.2	848.8	604.1	437.4	354.1	320.3	302.0	291.6	286.4	286.4
17.5°	1283.6	1114.4	804.5	525.9	372.3	312.4	286.4	273.4	263.0	257.8	257.8
20°	1330.5	1127.4	760.3	455.6	325.5	286.4	263.0	250.0	239.5	236.9	234.3
22.5°	1387.8	1148.2	716.0	398.4	294.2	260.4	239.5	229.1	221.3	216.1	216.1
25°	1455.5	1174.3	682.2	356.7	270.8	242.1	223.9	210.9	203.1	200.5	200.5
27.5°	1549.2	1218.5	648.3	325.5	252.6	223.9	205.7	195.3	187.5	184.9	182.3
30°	1637.7	1273.2	632.7	317.7	239.5	208.3	195.3	182.3	174.4	171.8	169.2
32.5°	1752.3	1335.7	622.3	317.7	234.3	197.9	182.3	171.8	164.0	161.4	158.8
35°	1874.7	1408.6	622.3	328.1	236.9	190.1	171.8	161.4	153.6	148.4	148.4
37.5°	2007.4	1481.5	627.5	343.7	244.7	184.9	161.4	151.0	143.2	140.6	140.6
40°	2148.0	1580.4	637.9	356.7	252.6	182.3	151.0	143.2	135.4	130.2	130.2
42.5°	2278.2	1658.6	656.1	372.3	257.8	179.7	143.2	135.4	127.6	125.0	125.0
45°	2429.2	1744.5	671.8	382.7	257.8	171.8	135.4	127.6	122.4	119.8	117.2
47.5°	2549.0	1814.8	679.6	388.0	252.6	164.0	127.6	122.4	117.2	112.0	114.6
50°	2694.8	1890.3	692.6	390.6	242.1	153.6	122.4	114.6	109.4	106.8	106.8
52.5°	2835.4	1965.8	703.0	385.3	229.1	140.6	114.6	109.4	104.1	98.9	98.9
55°	3002.1	2049.1	718.6	377.5	208.3	127.6	106.8	101.5	93.7	91.1	88.5
57.5°	3192.1	2158.5	731.6	361.9	182.3	114.6	101.5	93.7	83.3	78.1	78.1
60°	3366.6	2283.4	742.1	322.9	158.8	106.8	93.7	85.9	75.5	72.9	72.9
62.5°	3554.0	2413.6	742.1	255.2	135.4	96.3	88.5	80.7	70.3	67.7	67.7
65°	3684.2	2530.8	718.6	190.1	114.6	91.1	85.9	75.5	65.1	62.5	62.5
67.5°	3720.7	2603.7	653.5	135.4	98.9	85.9	80.7	70.3	62.5	57.3	57.3
70°	3603.5	2546.4	533.8	104.1	85.9	78.1	72.9	65.1	57.3	54.7	54.7
72.5°	3267.6	2327.7	398.4	88.5	75.5	72.9	67.7	59.9	54.7	52.1	52.1
75°	2736.5	1934.5	281.2	78.1	70.3	65.1	59.9	54.7	49.5	49.5	49.5
77.5°	2072.5	1398.2	174.4	70.3	59.9	59.9	54.7	49.5	46.9	44.3	44.3
80°	1338.3	882.7	98.9	49.5	41.7	44.3	39.1	33.8	33.8	31.2	31.2
82.5°	567.6	348.9	52.1	28.6	20.8	18.2	13.0	13.0	10.4	10.4	10.4
85°	57.3	20.8	10.4	7.8	7.8	5.2	5.2	5.2	5.2	2.6	2.6
87.5°	7.8	7.8	7.8	5.2	5.2	5.2	2.6	2.6	2.6	2.6	2.6
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

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**

$\lambda$ (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			

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**



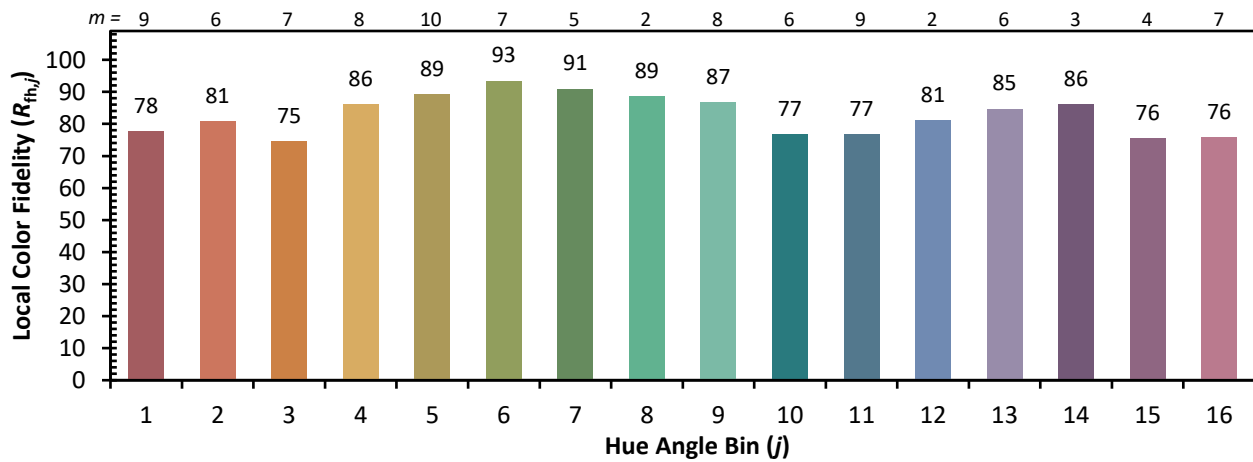


**Individual Sample Fidelity Index ( $R_{f,i}$ )**

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)