

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: P870605

Luminaire Tested: **EMM2-HTN-SA3A-830-U-T1**

Issue Date: 09/05/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P870605  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 09/05/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: EMM2-HTN-SA3A-830-U-T1  
Description: EPIC MODERN TALL HOUSING DISCRETE LED ARRAYS 130W 80CRI 3000K  
FIXTURE w/ TYPE 1 DISTRIBUTION OPTIC  
Light Source: (30) 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

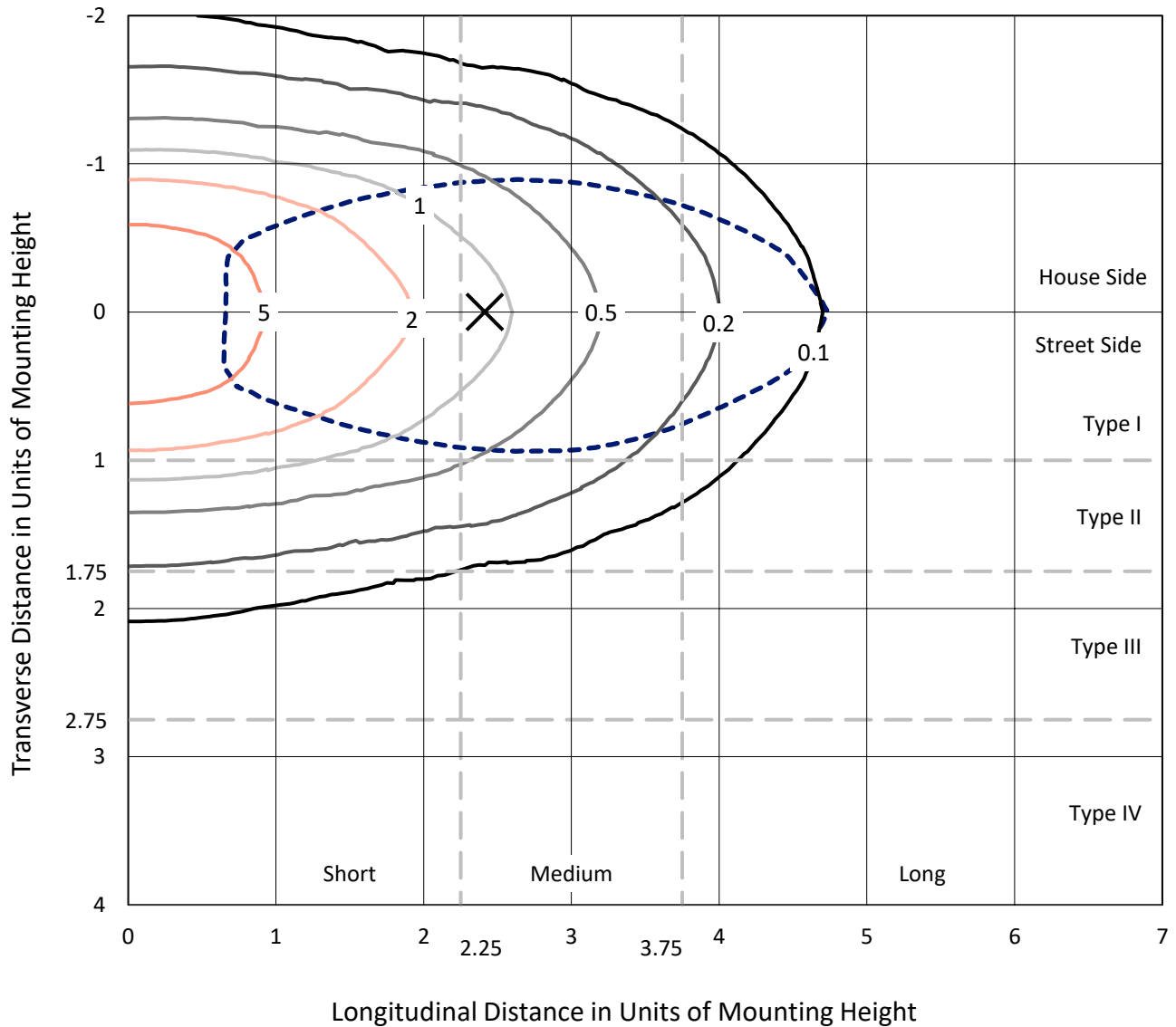
Lumens per Lamp: N/A  
Luminaire Lumens: 15307.9 lumens  
Efficiency: N/A  
Efficacy: 135.5 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 0.33' x H: 0')  
IES Classification: Type I - Short  
BUG Rating: B3 - U0 - G3

Input Watts (W): 113  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: 0.99  
Total Harmonic Distortion (THDi): 7.77%  
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

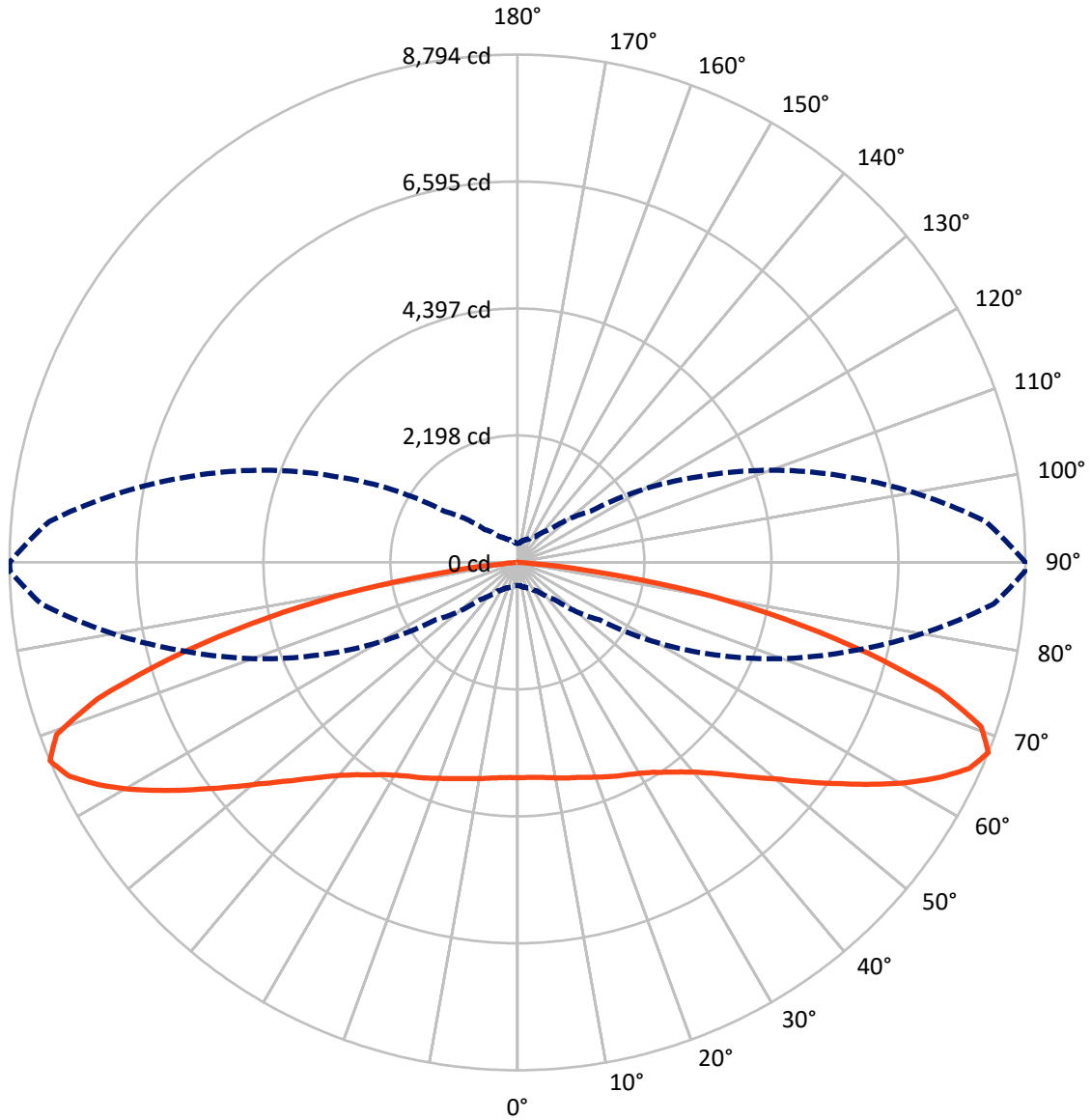
× Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 9.3 fc  
 Type I - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 90-Deg Lateral      - - - Horizontal Cone Through 67.5-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	7518.0	0.0	7518.0
	% Fixture	49.1	0.0	49.1
<b>Street Side</b>	Lumens	7789.9	0.0	7789.9
	% Fixture	50.9	0.0	50.9
<b>Total</b>	Lumens	15307.9	0.0	15307.9
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	357.5	2.3
10°-20°	1074.2	7.0
20°-30°	1777.7	11.6
30°-40°	2357.2	15.4
40°-50°	2657.8	17.4
50°-60°	2724.6	17.8
60°-70°	2573.3	16.8
70°-80°	1579.0	10.3
80°-90°	206.6	1.3
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°	15307.9	100.0
0°-180°	15307.9	100.0



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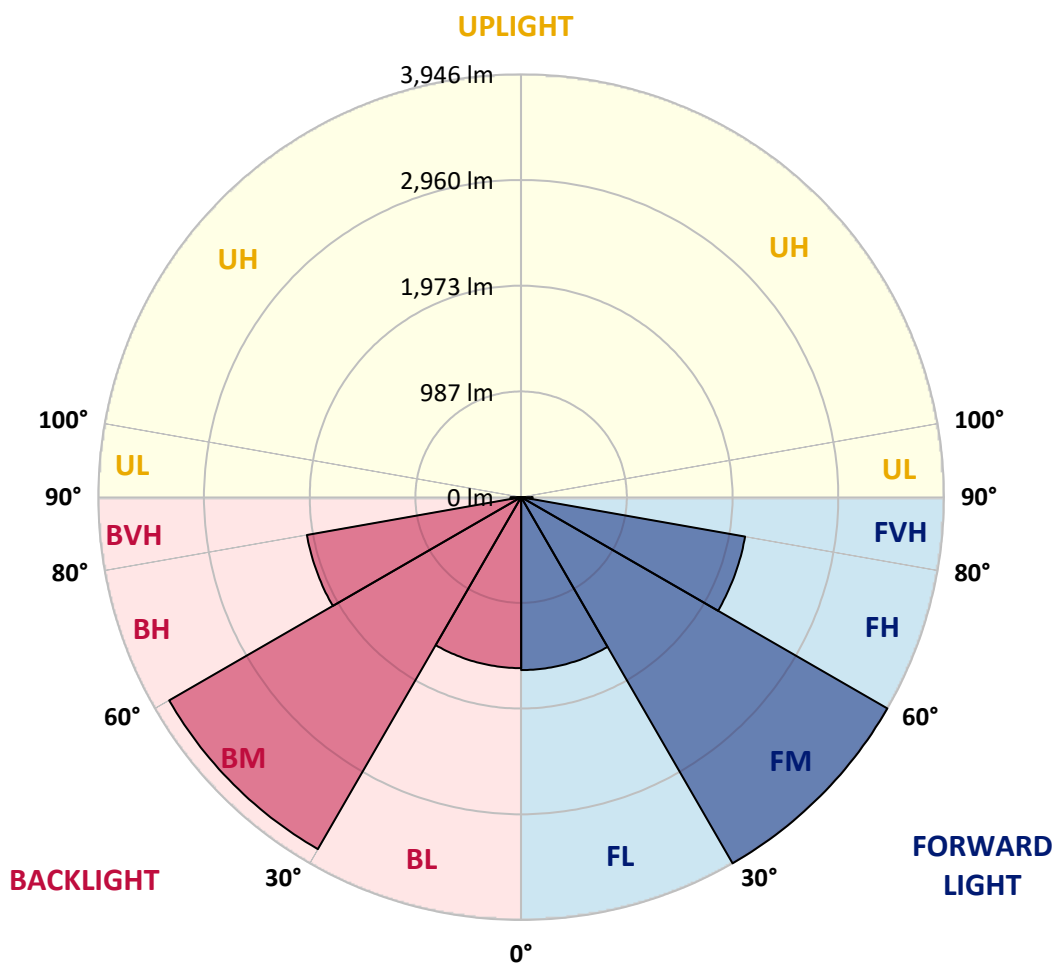
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1613.9	10.5			
FM (30°-60°)	3946.2	25.8			
FH (60°-80°)	2122.2	13.9			G2/5000
FVH (80°-90°)	107.6	0.7			G2/225
BL (0°-30°)	1595.5	10.4	B3/2500		
BM (30°-60°)	3793.4	24.8	B3/5000		
BH (60°-80°)	2030.2	13.3	B3/2500		G3/2500
BVH (80°-90°)	99.0	0.6			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 I Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	89°
0°	3729.7	3729.7	3729.7	3729.7	3729.7	3729.7	3729.7	3729.7	3729.7	3729.7	3729.7
2.5°	3744.4	3744.4	3735.6	3720.9	3718.0	3720.9	3738.6	3729.7	3729.7	3732.7	3729.7
5°	3744.4	3744.4	3738.6	3723.9	3723.9	3723.9	3744.4	3735.6	3738.6	3741.5	3741.5
7.5°	3750.3	3750.3	3744.4	3732.7	3732.7	3732.7	3762.1	3756.2	3756.2	3765.0	3759.1
10°	3765.0	3759.1	3753.3	3756.2	3747.4	3762.1	3776.8	3779.7	3791.5	3797.3	3794.4
12.5°	3765.0	3759.1	3744.4	3762.1	3762.1	3782.6	3803.2	3815.0	3829.7	3829.7	3829.7
15°	3747.4	3741.5	3729.7	3759.1	3770.9	3797.3	3826.7	3844.4	3870.8	3870.8	3867.9
17.5°	3726.8	3718.0	3712.1	3756.2	3782.6	3817.9	3862.0	3885.5	3914.9	3917.8	3912.0
20°	3688.6	3685.7	3688.6	3747.4	3794.4	3844.4	3897.3	3929.6	3967.8	3979.6	3970.7
22.5°	3647.4	3647.4	3659.2	3738.6	3812.0	3879.6	3950.2	3991.3	4029.5	4041.3	4029.5
25°	3591.6	3591.6	3615.1	3709.2	3817.9	3917.8	4000.1	4056.0	4091.2	4103.0	4097.1
27.5°	3506.4	3506.4	3532.8	3650.4	3800.3	3947.2	4053.0	4117.7	4155.9	4167.7	4161.8
30°	3385.9	3380.0	3415.3	3562.2	3767.9	3979.6	4114.8	4182.4	4232.3	4241.1	4232.3
32.5°	3194.8	3203.6	3256.5	3441.7	3715.0	4000.1	4188.2	4267.6	4323.4	4341.1	4335.2
35°	2962.6	2977.3	3050.8	3288.9	3615.1	3997.2	4264.7	4361.6	4435.1	4458.6	4455.7
37.5°	2686.4	2706.9	2798.0	3077.3	3465.2	3953.1	4335.2	4467.5	4564.4	4593.8	4599.7
40°	2383.6	2404.2	2521.8	2830.4	3262.4	3850.2	4376.3	4588.0	4717.3	4776.1	4784.9
42.5°	2063.3	2098.5	2239.6	2539.4	3018.5	3685.7	4376.3	4705.5	4864.2	4973.0	4981.8
45°	1754.7	1784.0	1954.5	2248.4	2756.9	3474.0	4326.4	4823.1	5064.1	5252.2	5246.3
47.5°	1487.2	1496.0	1651.8	1948.6	2465.9	3233.0	4223.5	4928.9	5275.7	5525.5	5578.4
50°	1210.9	1231.5	1363.7	1657.7	2169.1	2968.5	4050.1	4996.5	5493.2	5872.4	5940.0
52.5°	1016.9	1019.9	1119.8	1390.2	1860.5	2648.1	3841.4	5014.1	5701.9	6248.6	6330.9
55°	828.8	843.5	928.8	1131.6	1563.6	2333.7	3571.0	4987.7	5892.9	6613.0	6765.8
57.5°	711.3	714.2	775.9	937.6	1319.7	1998.6	3271.2	4899.5	6051.6	7015.7	7209.7
60°	611.3	611.3	658.4	781.8	1066.9	1672.4	2918.5	4743.7	6139.8	7447.7	7729.9
62.5°	532.0	534.9	576.1	667.2	887.6	1381.4	2530.6	4499.8	6172.1	7865.1	8188.4
65°	482.0	485.0	508.5	570.2	731.8	1122.7	2133.8	4202.9	6128.1	8176.6	8596.9
67.5°	399.7	402.7	443.8	490.8	608.4	902.3	1734.1	3791.5	5948.8	8273.6	8788.0
70°	305.7	314.5	370.3	420.3	505.5	720.1	1331.4	3247.7	5519.7	7944.4	8473.5
72.5°	255.7	258.6	299.8	355.6	423.2	564.3	1011.1	2557.0	4867.2	7095.0	7682.8
75°	223.4	226.3	249.8	299.8	352.7	452.6	702.4	1766.4	3882.6	5737.2	6275.0
77.5°	202.8	205.7	211.6	252.8	296.9	349.8	496.7	1049.3	2739.3	4385.2	4667.3
80°	194.0	194.0	179.3	208.7	243.9	273.3	332.1	602.5	1757.6	2956.8	3183.1
82.5°	138.1	135.2	123.4	129.3	149.9	149.9	170.5	249.8	673.1	1249.1	1354.9
85°	8.8	8.8	14.7	17.6	26.5	35.3	44.1	58.8	170.5	232.2	241.0
87.5°	2.9	2.9	2.9	2.9	2.9	5.9	5.9	5.9	8.8	11.8	11.8
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: P870605  
 CATALOG NUMBER: EMM2-HTN-SA3A-830-U-T1

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3729.7	3729.7	3729.7	3729.7	3729.7	3729.7	3729.7	3729.7	3729.7	3729.7	3729.7
2.5°	3726.8	3729.7	3729.7	3735.6	3741.5	3738.6	3735.6	3741.5	3732.7	3715.0	3712.1
5°	3738.6	3738.6	3735.6	3741.5	3747.4	3741.5	3735.6	3735.6	3729.7	3712.1	3709.2
7.5°	3762.1	3759.1	3759.1	3759.1	3759.1	3750.3	3741.5	3735.6	3726.8	3709.2	3700.3
10°	3794.4	3791.5	3788.5	3785.6	3770.9	3762.1	3747.4	3738.6	3726.8	3706.2	3700.3
12.5°	3829.7	3823.8	3817.9	3820.9	3791.5	3765.0	3750.3	3729.7	3720.9	3673.9	3665.1
15°	3864.9	3856.1	3853.2	3841.4	3812.0	3773.8	3744.4	3715.0	3685.7	3641.6	3626.9
17.5°	3912.0	3906.1	3888.4	3876.7	3835.5	3782.6	3738.6	3697.4	3659.2	3606.3	3597.5
20°	3967.8	3961.9	3944.3	3920.8	3867.9	3803.2	3741.5	3676.8	3629.8	3568.1	3553.4
22.5°	4029.5	4020.7	4006.0	3979.6	3912.0	3835.5	3750.3	3665.1	3594.5	3524.0	3515.2
25°	4094.2	4088.3	4073.6	4035.4	3961.9	3867.9	3750.3	3623.9	3535.8	3474.0	3447.6
27.5°	4155.9	4153.0	4135.3	4091.2	4014.8	3891.4	3723.9	3556.3	3438.8	3356.5	3338.8
30°	4235.3	4229.4	4208.8	4158.8	4073.6	3906.1	3671.0	3441.7	3294.7	3203.6	3177.2
32.5°	4332.3	4326.4	4297.0	4235.3	4144.2	3909.0	3594.5	3294.7	3100.8	3003.8	2971.4
35°	4461.6	4449.8	4411.6	4338.1	4211.8	3879.6	3459.3	3106.6	2868.6	2742.2	2698.1
37.5°	4602.7	4588.0	4538.0	4446.9	4258.8	3800.3	3268.3	2853.9	2583.5	2433.6	2401.3
40°	4776.1	4755.5	4679.1	4552.7	4276.4	3662.1	3053.7	2595.2	2307.2	2142.6	2104.4
42.5°	4993.6	4958.3	4834.8	4670.3	4241.1	3474.0	2798.0	2327.8	1998.6	1845.8	1836.9
45°	5255.1	5199.3	5014.1	4784.9	4164.7	3238.9	2527.6	2028.0	1713.5	1563.6	1525.4
47.5°	5563.7	5496.1	5222.8	4873.1	4014.8	2997.9	2236.7	1737.0	1449.0	1296.1	1266.8
50°	5904.7	5840.0	5443.2	4923.0	3853.2	2715.7	1951.6	1478.4	1190.3	1064.0	1064.0
52.5°	6319.1	6172.1	5654.9	4928.9	3606.3	2404.2	1678.2	1225.6	999.3	887.6	864.1
55°	6760.0	6586.6	5845.9	4876.0	3350.6	2119.1	1384.3	1019.9	820.0	740.7	720.1
57.5°	7250.8	6986.3	5984.0	4770.2	3027.3	1807.6	1155.1	840.6	690.7	626.0	617.2
60°	7744.6	7403.6	6066.3	4590.9	2683.4	1519.5	961.1	702.4	593.7	546.7	537.9
62.5°	8203.1	7744.6	6072.2	4329.3	2348.4	1266.8	787.7	605.5	526.1	490.8	490.8
65°	8599.9	8029.7	5972.3	3994.3	1922.2	1016.9	649.5	511.4	458.5	420.3	411.5
67.5°	8793.8	8138.4	5795.9	3535.8	1540.1	805.3	546.7	443.8	393.8	335.1	329.2
70°	8520.5	7823.9	5343.3	2947.9	1190.3	640.7	455.6	379.1	329.2	279.2	273.3
72.5°	7647.6	6986.3	4611.5	2283.7	896.4	517.3	379.1	323.3	270.4	243.9	238.1
75°	6257.4	5810.6	3644.5	1572.4	626.0	405.6	317.4	273.3	229.3	217.5	214.6
77.5°	4749.6	4320.5	2662.8	984.6	429.1	317.4	270.4	232.2	199.9	208.7	202.8
80°	3171.3	2974.4	1769.3	558.4	288.0	232.2	205.7	170.5	152.8	176.3	170.5
82.5°	1440.2	1363.7	831.8	243.9	129.3	99.9	70.5	52.9	41.1	38.2	44.1
85°	241.0	211.6	58.8	26.5	14.7	8.8	5.9	5.9	2.9	2.9	2.9
87.5°	11.8	8.8	8.8	5.9	2.9	2.9	2.9	2.9	2.9	0.0	0.0
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: SP1-2407-157-7

Test Date: 09/05/2024

Luminaire Tested: MEM2-HTN-SA-40-830-U-5WQ

Data in this report applies to families of products including MEM2-HTN-SA-40-830-U-5WQ

**Test Information**

Test Method: LM-79-2019  
 Report Number: SP1-2407-157-7  
 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-40-830-U-5WQ**  
 Description: Epic Modern Light Square 40W 5WQ Optic

**Spectral Parameters**

CCT (K): 3126  
 CIE u': 0.2465  
 CIE v': 0.5182  
 Duv: -0.0004  
 CIE x: 0.4277  
 CIE y: 0.3997  
 CIE z: 0.1727  
 Peak Wavelength (nm): 601  
 Dominant Wavelength (nm): 582  
 Purity: 48.31913  
 Rf: 84.4  
 Rg: 94.7

CRI (Ra):	82.6		
R1:	81.4	R9:	5.1
R2:	92.2	R10:	82.2
R3:	94.9	R11:	79.8
R4:	80.1	R12:	70.4
R5:	81.8	R13:	84.2
R6:	90.5	R14:	97.9
R7:	81.8	R15:	73.6
R8:	58.0		



**Test Conditions**

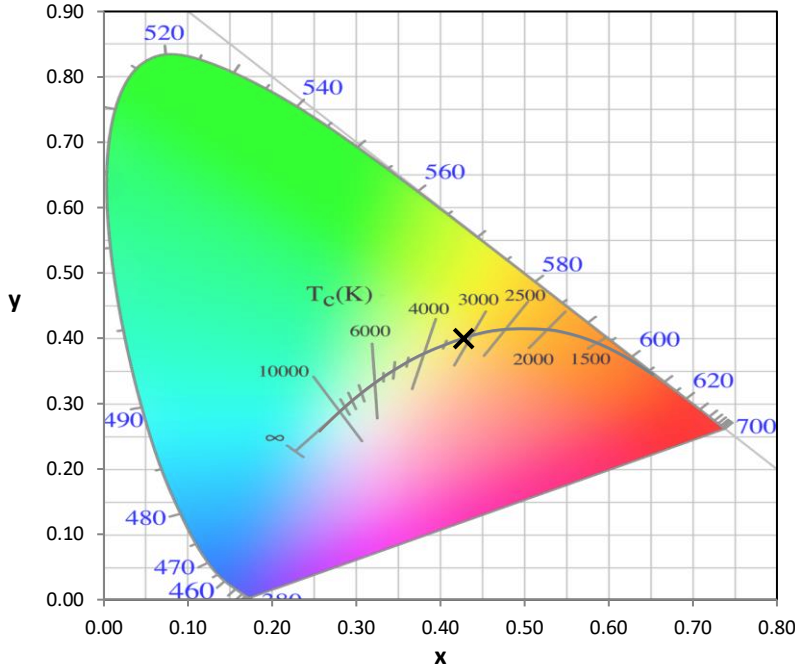
Stabilization Time: 22M  
 Operation Time: 1H 22M  
 Sphere Temperature (°C): 24.3

REPORT NUMBER: SP1-2407-157-7

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 3000K 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	258	NR	620	908	NR	750	26	NR	880	1	NR
365	0	NR	495	297	NR	625	857	NR	755	22	NR	885	0	NR
370	0	NR	500	345	NR	630	801	NR	760	19	NR	890	0	NR
375	0	NR	505	391	NR	635	738	NR	765	16	NR	895	0	NR
380	0	NR	510	426	NR	640	675	NR	770	14	NR	900	0	NR
385	0	NR	515	456	NR	645	610	NR	775	12	NR	905	0	NR
390	0	NR	520	480	NR	650	547	NR	780	10	NR	910	0	NR
395	0	NR	525	500	NR	655	488	NR	785	9	NR	915	0	NR
400	0	NR	530	517	NR	660	429	NR	790	7	NR	920	0	NR
405	2	NR	535	538	NR	665	378	NR	795	6	NR	925	0	NR
410	4	NR	540	558	NR	670	328	NR	800	5	NR	930	0	NR
415	9	NR	545	584	NR	675	285	NR	805	5	NR	935	0	NR
420	16	NR	550	611	NR	680	247	NR	810	4	NR	940	0	NR
425	31	NR	555	646	NR	685	212	NR	815	3	NR	945	0	NR
430	56	NR	560	687	NR	690	183	NR	820	3	NR	950	0	NR
435	101	NR	565	731	NR	695	156	NR	825	3	NR	955	0	NR
440	178	NR	570	780	NR	700	133	NR	830	2	NR	960	0	NR
445	323	NR	575	832	NR	705	114	NR	835	2	NR	965	0	NR
450	566	NR	580	883	NR	710	96	NR	840	2	NR	970	0	NR
455	645	NR	585	927	NR	715	82	NR	845	1	NR	975	0	NR
460	457	NR	590	963	NR	720	70	NR	850	1	NR	980	0	NR
465	365	NR	595	985	NR	725	59	NR	855	1	NR	985	0	NR
470	317	NR	600	998	NR	730	50	NR	860	1	NR	990	0	NR
475	244	NR	605	994	NR	735	43	NR	865	1	NR	995	0	NR
480	218	NR	610	978	NR	740	36	NR	870	1	NR	1000	0	NR
485	233	NR	615	947	NR	745	31	NR	875	1	NR			

REPORT NUMBER: SP1-2407-157-7

Scotopic Flux vs. Wavelength



Scotopic Lumens: NR

S/P: 1.42

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	258	NR	620	908	NR	750	26	NR	880	1	NR
365	0	NR	495	297	NR	625	857	NR	755	22	NR	885	0	NR
370	0	NR	500	345	NR	630	801	NR	760	19	NR	890	0	NR
375	0	NR	505	391	NR	635	738	NR	765	16	NR	895	0	NR
380	0	NR	510	426	NR	640	675	NR	770	14	NR	900	0	NR
385	0	NR	515	456	NR	645	610	NR	775	12	NR	905	0	NR
390	0	NR	520	480	NR	650	547	NR	780	10	NR	910	0	NR
395	0	NR	525	500	NR	655	488	NR	785	9	NR	915	0	NR
400	0	NR	530	517	NR	660	429	NR	790	7	NR	920	0	NR
405	2	NR	535	538	NR	665	378	NR	795	6	NR	925	0	NR
410	4	NR	540	558	NR	670	328	NR	800	5	NR	930	0	NR
415	9	NR	545	584	NR	675	285	NR	805	5	NR	935	0	NR
420	16	NR	550	611	NR	680	247	NR	810	4	NR	940	0	NR
425	31	NR	555	646	NR	685	212	NR	815	3	NR	945	0	NR
430	56	NR	560	687	NR	690	183	NR	820	3	NR	950	0	NR
435	101	NR	565	731	NR	695	156	NR	825	3	NR	955	0	NR
440	178	NR	570	780	NR	700	133	NR	830	2	NR	960	0	NR
445	323	NR	575	832	NR	705	114	NR	835	2	NR	965	0	NR
450	566	NR	580	883	NR	710	96	NR	840	2	NR	970	0	NR
455	645	NR	585	927	NR	715	82	NR	845	1	NR	975	0	NR
460	457	NR	590	963	NR	720	70	NR	850	1	NR	980	0	NR
465	365	NR	595	985	NR	725	59	NR	855	1	NR	985	0	NR
470	317	NR	600	998	NR	730	50	NR	860	1	NR	990	0	NR
475	244	NR	605	994	NR	735	43	NR	865	1	NR	995	0	NR
480	218	NR	610	978	NR	740	36	NR	870	1	NR	1000	0	NR
485	233	NR	615	947	NR	745	31	NR	875	1	NR			

REPORT NUMBER: SP1-2407-157-7

Melanopic Flux vs. Wavelength



Melanopic Lumens: NR

M/P: 2.79

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	258	NR	620	908	NR	750	26	NR	880	1	NR
365	0	NR	495	297	NR	625	857	NR	755	22	NR	885	0	NR
370	0	NR	500	345	NR	630	801	NR	760	19	NR	890	0	NR
375	0	NR	505	391	NR	635	738	NR	765	16	NR	895	0	NR
380	0	NR	510	426	NR	640	675	NR	770	14	NR	900	0	NR
385	0	NR	515	456	NR	645	610	NR	775	12	NR	905	0	NR
390	0	NR	520	480	NR	650	547	NR	780	10	NR	910	0	NR
395	0	NR	525	500	NR	655	488	NR	785	9	NR	915	0	NR
400	0	NR	530	517	NR	660	429	NR	790	7	NR	920	0	NR
405	2	NR	535	538	NR	665	378	NR	795	6	NR	925	0	NR
410	4	NR	540	558	NR	670	328	NR	800	5	NR	930	0	NR
415	9	NR	545	584	NR	675	285	NR	805	5	NR	935	0	NR
420	16	NR	550	611	NR	680	247	NR	810	4	NR	940	0	NR
425	31	NR	555	646	NR	685	212	NR	815	3	NR	945	0	NR
430	56	NR	560	687	NR	690	183	NR	820	3	NR	950	0	NR
435	101	NR	565	731	NR	695	156	NR	825	3	NR	955	0	NR
440	178	NR	570	780	NR	700	133	NR	830	2	NR	960	0	NR
445	323	NR	575	832	NR	705	114	NR	835	2	NR	965	0	NR
450	566	NR	580	883	NR	710	96	NR	840	2	NR	970	0	NR
455	645	NR	585	927	NR	715	82	NR	845	1	NR	975	0	NR
460	457	NR	590	963	NR	720	70	NR	850	1	NR	980	0	NR
465	365	NR	595	985	NR	725	59	NR	855	1	NR	985	0	NR
470	317	NR	600	998	NR	730	50	NR	860	1	NR	990	0	NR
475	244	NR	605	994	NR	735	43	NR	865	1	NR	995	0	NR
480	218	NR	610	978	NR	740	36	NR	870	1	NR	1000	0	NR
485	233	NR	615	947	NR	745	31	NR	875	1	NR			

**Summary**

$R_f = 84.4$   
 $R_g = 94.7$   
 $CIE R_a = 82.6$   
 $R_9 = 5.1$



**Color Vector Graphics**





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

CES01 = 86	CES26 = 86	CES51 = 93	CES76 = 82
CES02 = 63	CES27 = 92	CES52 = 93	CES77 = 84
CES03 = 31	CES28 = 94	CES53 = 89	CES78 = 81
CES04 = 70	CES29 = 92	CES54 = 89	CES79 = 90
CES05 = 49	CES30 = 91	CES55 = 86	CES80 = 89
CES06 = 51	CES31 = 93	CES56 = 85	CES81 = 72
CES07 = 42	CES32 = 85	CES57 = 83	CES82 = 95
CES08 = 41	CES33 = 97	CES58 = 84	CES83 = 94
CES09 = 29	CES34 = 92	CES59 = 91	CES84 = 91
CES10 = 76	CES35 = 96	CES60 = 90	CES85 = 74
CES11 = 59	CES36 = 81	CES61 = 87	CES86 = 68
CES12 = 65	CES37 = 96	CES62 = 83	CES87 = 84
CES13 = 43	CES38 = 86	CES63 = 87	CES88 = 88
CES14 = 74	CES39 = 98	CES64 = 79	CES89 = 75
CES15 = 71	CES40 = 96	CES65 = 78	CES90 = 89
CES16 = 47	CES41 = 96	CES66 = 77	CES91 = 73
CES17 = 50	CES42 = 97	CES67 = 76	CES92 = 63
CES18 = 56	CES43 = 91	CES68 = 80	CES93 = 77
CES19 = 72	CES44 = 99	CES69 = 85	CES94 = 61
CES20 = 66	CES45 = 93	CES70 = 78	CES95 = 73
CES21 = 87	CES46 = 90	CES71 = 74	CES96 = 84
CES22 = 79	CES47 = 94	CES72 = 91	CES97 = 88
CES23 = 92	CES48 = 83	CES73 = 74	CES98 = 85
CES24 = 91	CES49 = 91	CES74 = 90	CES99 = 76
CES25 = 72	CES50 = 93	CES75 = 78	



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)