

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: P868766

Luminaire Tested: **EMM2-HSN-SA3B-722-U-T1**

Issue Date: 08/22/2024



**Test Information**

Test Method: LM-79-08  
Report Number: P868766  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 08/22/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: EMM2-HSN-SA3B-722-U-T1  
Description: EPIC MODERN SHORT HOUSING DISCRETE LED ARRAYS 150W 70CRI 2200K  
FIXTURE w/ TYPE 1 DISTRIBUTION OPTIC  
Light Source: (30) 2200K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

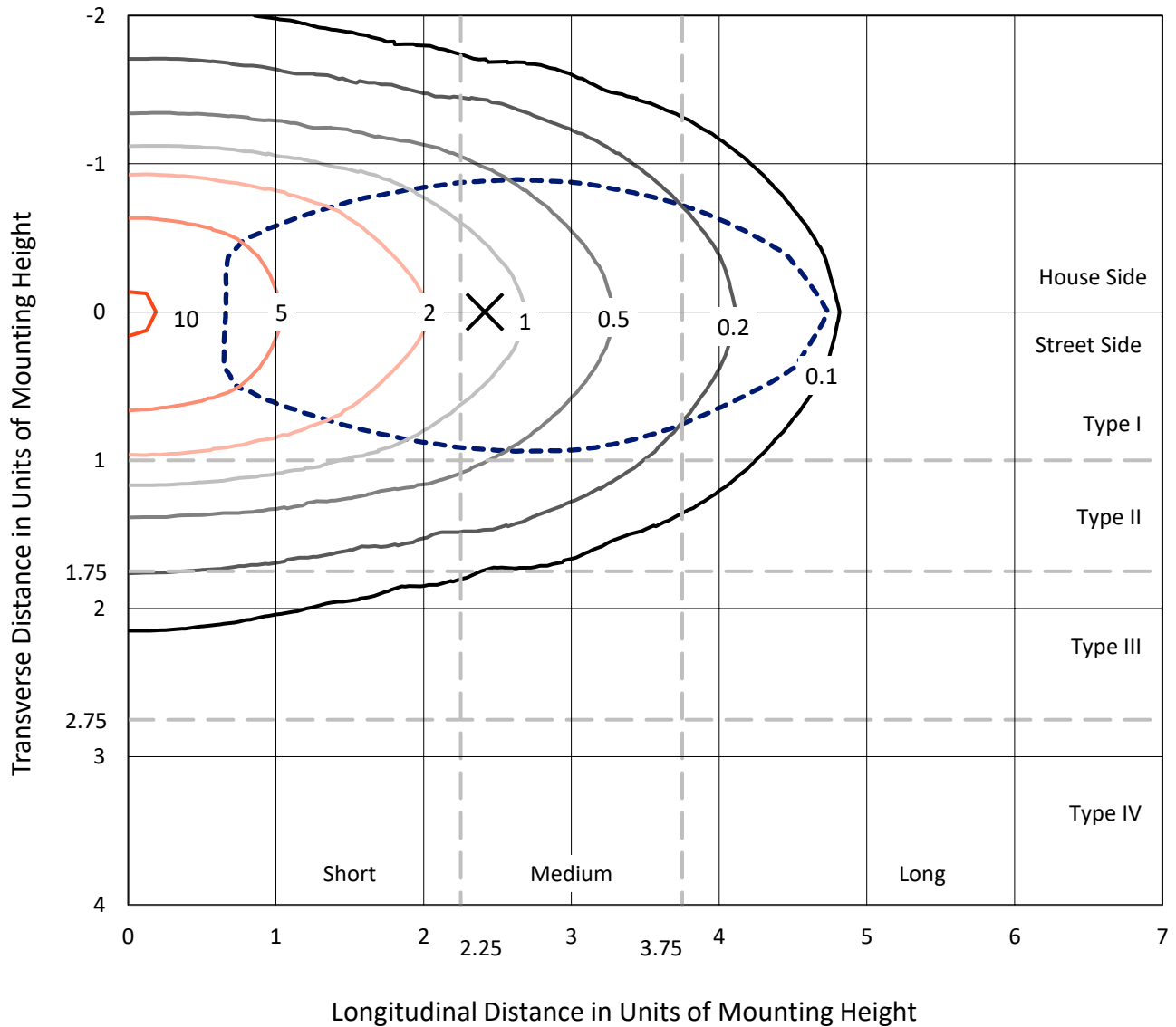
Lumens per Lamp: N/A  
Luminaire Lumens: 17039.7 lumens  
Efficiency: N/A  
Efficacy: 127.2 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 0.33' x H: 0')  
IES Classification: Type I - Short  
BUG Rating: B3 - U0 - G3

Input Watts (W): 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

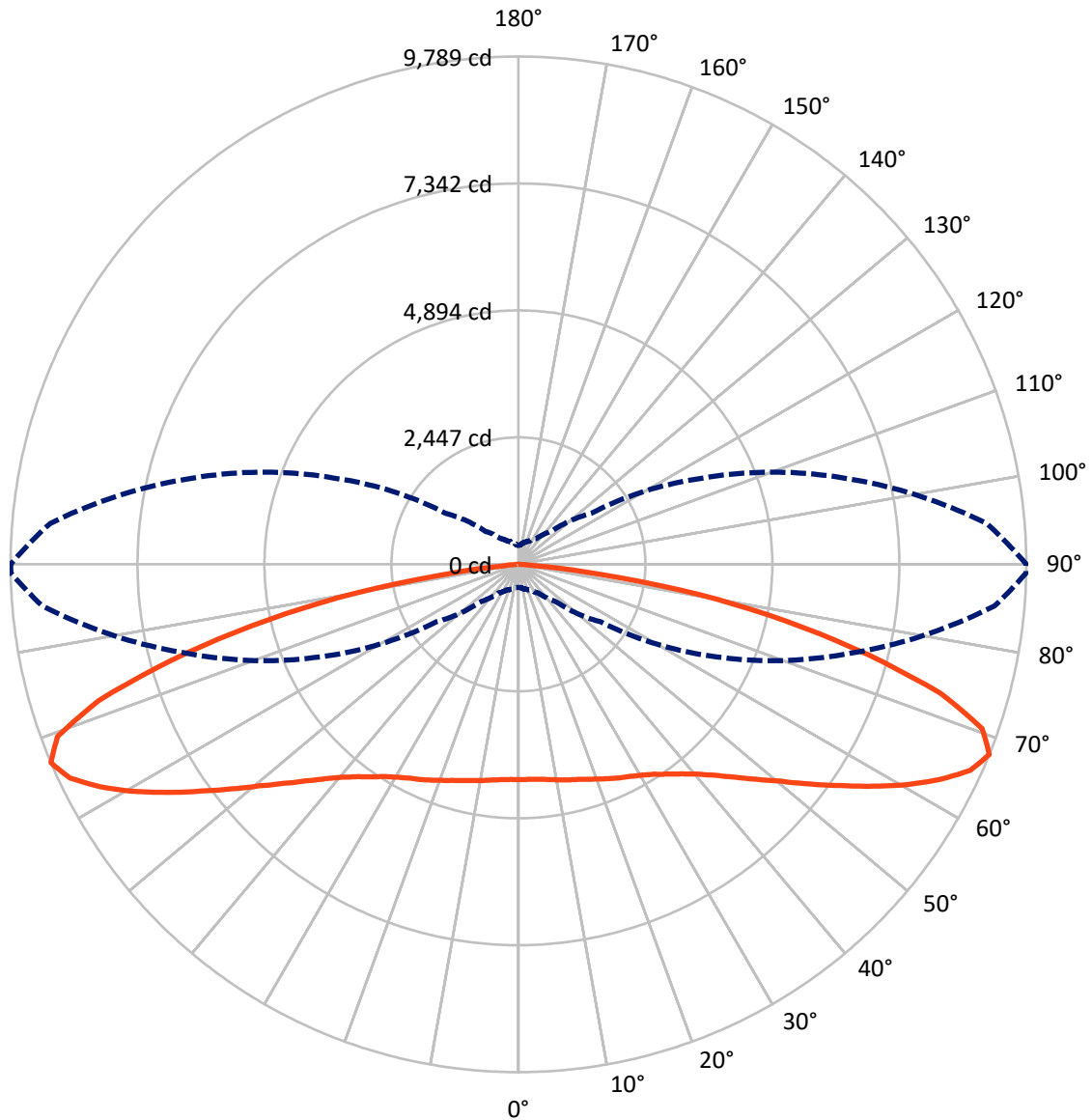
× Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 10.4 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	8368.6	0.0	8368.6
	% Fixture	49.1	0.0	49.1
<b>Street Side</b>	Lumens	8671.2	0.0	8671.2
	% Fixture	50.9	0.0	50.9
<b>Total</b>	Lumens	17039.7	0.0	17039.7
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	397.9	2.3
10°-20°	1195.7	7.0
20°-30°	1978.8	11.6
30°-40°	2623.9	15.4
40°-50°	2958.4	17.4
50°-60°	3032.8	17.8
60°-70°	2864.5	16.8
70°-80°	1757.6	10.3
80°-90°	230.0	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°	17039.7	100.0
0°-180°	17039.7	100.0

**Coefficient of Utilization**



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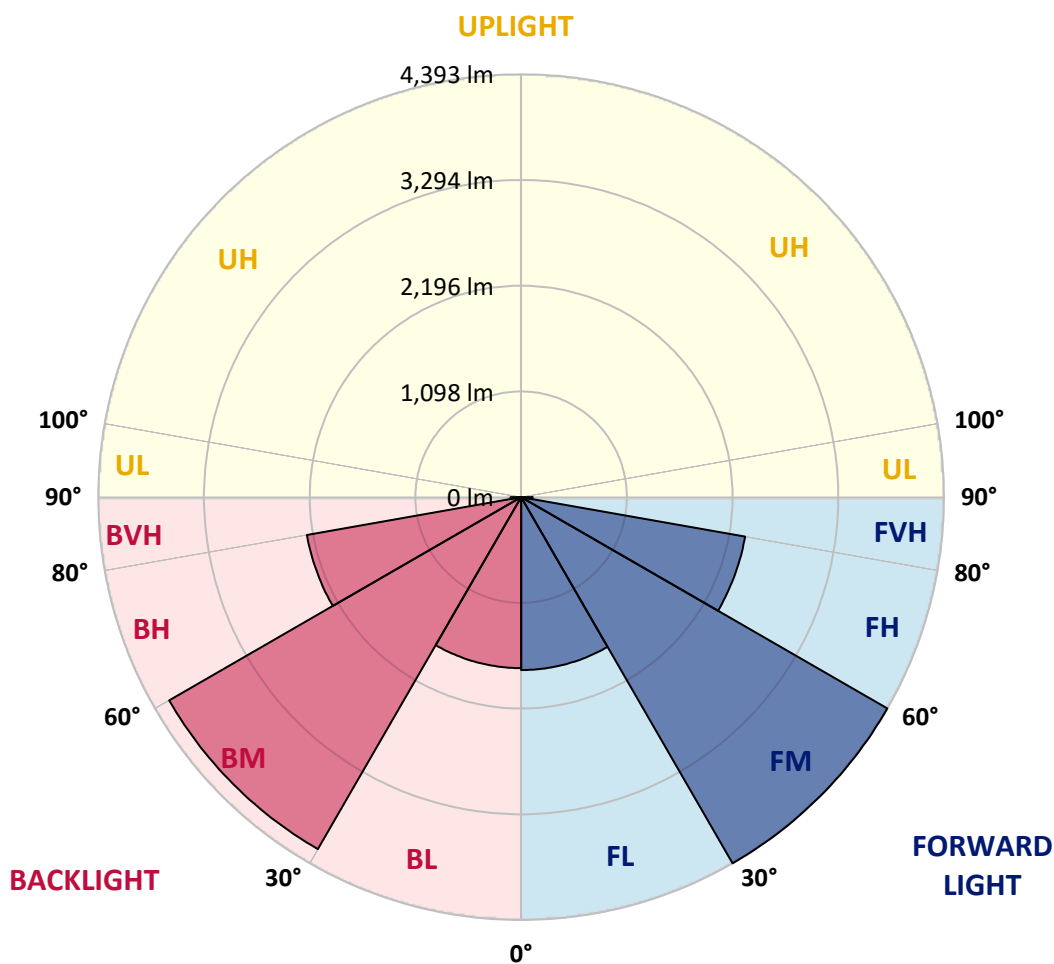
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1796.5	10.5			
FM (30°-60°)	4392.6	25.8			
FH (60°-80°)	2362.3	13.9			G2/5000
FVH (80°-90°)	119.8	0.7			G2/225
BL (0°-30°)	1776.0	10.4	B3/2500		
BM (30°-60°)	4222.6	24.8	B3/5000		
BH (60°-80°)	2259.8	13.3	B3/2500		G3/2500
BVH (80°-90°)	110.2	0.6			G2/225
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°	4151.7	4151.7	4151.7	4151.7	4151.7	4151.7	4151.7	4151.7	4151.7	4151.7	4151.7
2.5°	4168.1	4168.1	4158.2	4141.9	4138.6	4141.9	4161.5	4151.7	4151.7	4155.0	4151.7
5°	4168.1	4168.1	4161.5	4145.2	4145.2	4145.2	4168.1	4158.2	4161.5	4164.8	4164.8
7.5°	4174.6	4174.6	4168.1	4155.0	4155.0	4155.0	4187.7	4181.1	4181.1	4191.0	4184.4
10°	4191.0	4184.4	4177.9	4181.1	4171.3	4187.7	4204.0	4207.3	4220.4	4226.9	4223.7
12.5°	4191.0	4184.4	4168.1	4187.7	4187.7	4210.6	4233.5	4246.6	4262.9	4262.9	4262.9
15°	4171.3	4164.8	4151.7	4184.4	4197.5	4226.9	4259.7	4279.3	4308.7	4308.7	4305.5
17.5°	4148.4	4138.6	4132.1	4181.1	4210.6	4249.8	4298.9	4325.1	4357.8	4361.1	4354.5
20°	4105.9	4102.6	4105.9	4171.3	4223.7	4279.3	4338.2	4374.2	4416.7	4429.8	4420.0
22.5°	4060.1	4060.1	4073.2	4161.5	4243.3	4318.5	4397.1	4442.9	4485.4	4498.5	4485.4
25°	3997.9	3997.9	4024.1	4128.8	4249.8	4361.1	4452.7	4514.8	4554.1	4567.2	4560.6
27.5°	3903.1	3903.1	3932.5	4063.4	4230.2	4393.8	4511.6	4583.5	4626.1	4639.2	4632.6
30°	3768.9	3762.4	3801.6	3965.2	4194.2	4429.8	4580.3	4655.5	4711.1	4721.0	4711.1
32.5°	3556.3	3566.1	3625.0	3831.1	4135.3	4452.7	4662.1	4750.4	4812.6	4832.2	4825.6
35°	3297.8	3314.2	3395.9	3661.0	4024.1	4449.4	4747.1	4855.1	4936.9	4963.1	4959.8
37.5°	2990.3	3013.2	3114.6	3425.4	3857.2	4400.3	4825.6	4972.9	5080.8	5113.6	5120.1
40°	2653.3	2676.2	2807.1	3150.6	3631.5	4285.8	4871.5	5107.0	5251.0	5316.4	5326.2
42.5°	2296.7	2335.9	2493.0	2826.7	3360.0	4102.6	4871.5	5237.9	5414.5	5535.6	5545.4
45°	1953.2	1985.9	2175.6	2502.8	3068.8	3867.1	4815.8	5368.7	5637.0	5846.4	5839.9
47.5°	1655.4	1665.3	1838.7	2169.1	2744.9	3598.8	4701.3	5486.5	5872.6	6150.7	6209.5
50°	1347.9	1370.8	1518.0	1845.2	2414.5	3304.3	4508.3	5561.8	6114.7	6536.7	6612.0
52.5°	1132.0	1135.3	1246.5	1547.5	2070.9	2947.7	4276.0	5581.4	6347.0	6955.5	7047.1
55°	922.6	939.0	1033.8	1259.6	1740.5	2597.7	3975.0	5552.0	6559.6	7361.2	7531.3
57.5°	791.7	795.0	863.7	1043.6	1469.0	2224.7	3641.3	5453.8	6736.3	7809.4	8025.3
60°	680.5	680.5	732.8	870.3	1187.6	1861.6	3248.7	5280.4	6834.4	8290.3	8604.4
62.5°	592.2	595.4	641.2	742.7	988.0	1537.7	2816.9	5008.9	6870.4	8754.9	9114.8
65°	536.5	539.8	566.0	634.7	814.6	1249.8	2375.2	4678.4	6821.3	9101.7	9569.5
67.5°	444.9	448.2	494.0	546.4	677.2	1004.4	1930.3	4220.4	6621.8	9209.6	9782.2
70°	340.2	350.1	412.2	467.8	562.7	801.5	1482.0	3615.1	6144.1	8843.2	9432.1
72.5°	284.6	287.9	333.7	395.9	471.1	628.2	1125.4	2846.3	5417.8	7897.7	8552.0
75°	248.6	251.9	278.1	333.7	392.6	503.8	781.9	1966.2	4321.8	6386.2	6984.9
77.5°	225.7	229.0	235.6	281.4	330.4	389.3	552.9	1168.0	3049.2	4881.3	5195.3
80°	215.9	215.9	199.6	232.3	271.5	304.3	369.7	670.7	1956.4	3291.3	3543.2
82.5°	153.8	150.5	137.4	144.0	166.9	166.9	189.8	278.1	749.2	1390.4	1508.2
85°	9.8	9.8	16.4	19.6	29.4	39.3	49.1	65.4	189.8	258.5	268.3
87.5°	3.3	3.3	3.3	3.3	3.3	6.5	6.5	6.5	9.8	13.1	13.1
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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**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	4151.7	4151.7	4151.7	4151.7	4151.7	4151.7	4151.7	4151.7	4151.7	4151.7	4151.7
2.5°	4148.4	4151.7	4151.7	4158.2	4164.8	4161.5	4158.2	4164.8	4155.0	4135.3	4132.1
5°	4161.5	4161.5	4158.2	4164.8	4171.3	4164.8	4158.2	4158.2	4151.7	4132.1	4128.8
7.5°	4187.7	4184.4	4184.4	4184.4	4184.4	4174.6	4164.8	4158.2	4148.4	4128.8	4119.0
10°	4223.7	4220.4	4217.1	4213.9	4197.5	4187.7	4171.3	4161.5	4148.4	4125.5	4119.0
12.5°	4262.9	4256.4	4249.8	4253.1	4220.4	4191.0	4174.6	4151.7	4141.9	4089.5	4079.7
15°	4302.2	4292.4	4289.1	4276.0	4243.3	4200.8	4168.1	4135.3	4102.6	4053.5	4037.2
17.5°	4354.5	4348.0	4328.4	4315.3	4269.5	4210.6	4161.5	4115.7	4073.2	4014.3	4004.5
20°	4416.7	4410.2	4390.5	4364.4	4305.5	4233.5	4164.8	4092.8	4040.5	3971.8	3955.4
22.5°	4485.4	4475.6	4459.2	4429.8	4354.5	4269.5	4174.6	4079.7	4001.2	3922.7	3912.9
25°	4557.4	4550.8	4534.5	4491.9	4410.2	4305.5	4174.6	4033.9	3935.8	3867.1	3837.6
27.5°	4626.1	4622.8	4603.2	4554.1	4469.0	4331.6	4145.2	3958.7	3827.8	3736.2	3716.6
30°	4714.4	4707.9	4685.0	4629.4	4534.5	4348.0	4086.3	3831.1	3667.5	3566.1	3536.6
32.5°	4822.4	4815.8	4783.1	4714.4	4613.0	4351.3	4001.2	3667.5	3451.6	3343.6	3307.6
35°	4966.3	4953.2	4910.7	4828.9	4688.2	4318.5	3850.7	3458.1	3193.1	3052.4	3003.4
37.5°	5123.4	5107.0	5051.4	4950.0	4740.6	4230.2	3638.0	3176.7	2875.8	2708.9	2672.9
40°	5316.4	5293.5	5208.4	5067.8	4760.2	4076.4	3399.2	2888.8	2568.2	2385.0	2342.5
42.5°	5558.5	5519.2	5381.8	5198.6	4721.0	3867.1	3114.6	2591.1	2224.7	2054.6	2044.8
45°	5849.7	5787.5	5581.4	5326.2	4635.9	3605.3	2813.6	2257.4	1907.4	1740.5	1698.0
47.5°	6193.2	6117.9	5813.7	5424.4	4469.0	3337.1	2489.7	1933.5	1612.9	1442.8	1410.1
50°	6572.7	6500.7	6059.1	5480.0	4289.1	3023.0	2172.4	1645.6	1325.0	1184.3	1184.3
52.5°	7034.0	6870.4	6294.6	5486.5	4014.3	2676.2	1868.1	1364.3	1112.4	988.0	961.9
55°	7524.7	7331.7	6507.3	5427.6	3729.7	2358.8	1540.9	1135.3	912.8	824.5	801.5
57.5°	8071.1	7776.7	6661.0	5309.9	3369.8	2012.1	1285.7	935.7	768.8	696.9	687.0
60°	8620.7	8241.2	6752.6	5110.3	2987.0	1691.4	1069.8	781.9	660.9	608.5	598.7
62.5°	9131.1	8620.7	6759.2	4819.1	2614.0	1410.1	876.8	674.0	585.6	546.4	546.4
65°	9572.8	8938.1	6647.9	4446.1	2139.6	1132.0	723.0	569.3	510.4	467.8	458.0
67.5°	9788.7	9059.1	6451.6	3935.8	1714.3	896.4	608.5	494.0	438.4	373.0	366.4
70°	9484.4	8709.1	5947.8	3281.4	1325.0	713.2	507.1	422.0	366.4	310.8	304.3
72.5°	8512.8	7776.7	5133.2	2542.1	997.8	575.8	422.0	359.9	301.0	271.5	265.0
75°	6965.3	6468.0	4056.8	1750.3	696.9	451.5	353.3	304.3	255.2	242.1	238.8
77.5°	5286.9	4809.3	2964.1	1096.0	477.7	353.3	301.0	258.5	222.5	232.3	225.7
80°	3530.1	3310.9	1969.5	621.6	320.6	258.5	229.0	189.8	170.1	196.3	189.8
82.5°	1603.1	1518.0	925.9	271.5	144.0	111.2	78.5	58.9	45.8	42.5	49.1
85°	268.3	235.6	65.4	29.4	16.4	9.8	6.5	6.5	3.3	3.3	3.3
87.5°	13.1	9.8	9.8	6.5	3.3	3.3	3.3	3.3	3.3	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



LM-79-2019: Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

Report Prepared for

Cooper Lighting Solutions

Streetworks

Report Number: SP1-2407-157-2

Test Date: 08/07/2024

Luminaire Tested: MEM2-HTN-SA-40-722-U-5WQ-2

Data in this report applies to families of products including MEM2-HTN-SA-40-722-U-5WQ-2

**Test Information**

Test Method: LM-79-2019  
 Report Number: SP1-2407-157-2  
 Test Lab: COOPER LIGHTING SOLUTIONS  
 Photometer: SP1 - 76IN SPHERE  
 Measurement Geometry:  $4\pi$   
 Issue Date: 08/20/2024  
 Manufacturer: COOPER LIGHTING SOLUTIONS  
 Product Line: Streetworks  
 Catalog Number: **MEM2-HTN-SA-40-722-U-5WQ-2**  
 Description: Epic Modern Light Square 40W 5WQ Optic and Flare Trim

**Spectral Parameters**

CCT (K): 2253  
 CIE u': 0.2868  
 CIE v': 0.5332  
 Duv: -0.0014  
 CIE x: 0.4974  
 CIE y: 0.4110  
 CIE z: 0.0915  
 Peak Wavelength (nm): 603  
 Dominant Wavelength (nm): 587  
 Purity: 72.69432  
 Rf: 76.9  
 Rg: 92.7

CRI (Ra): 70.6  
 R1: 68.4  
 R2: 88.7  
 R3: 85.4  
 R4: 63.5  
 R5: 69.0  
 R6: 88.9  
 R7: 68.5  
 R8: 32.0  
 R9: -36.0  
 R10: 78.2  
 R11: 61.0  
 R12: 74.2  
 R13: 72.8  
 R14: 92.2  
 R15: 58.0



**Test Conditions**

Stabilization Time: 29M  
 Operation Time: 1H 29M  
 Sphere Temperature (°C): 24.1

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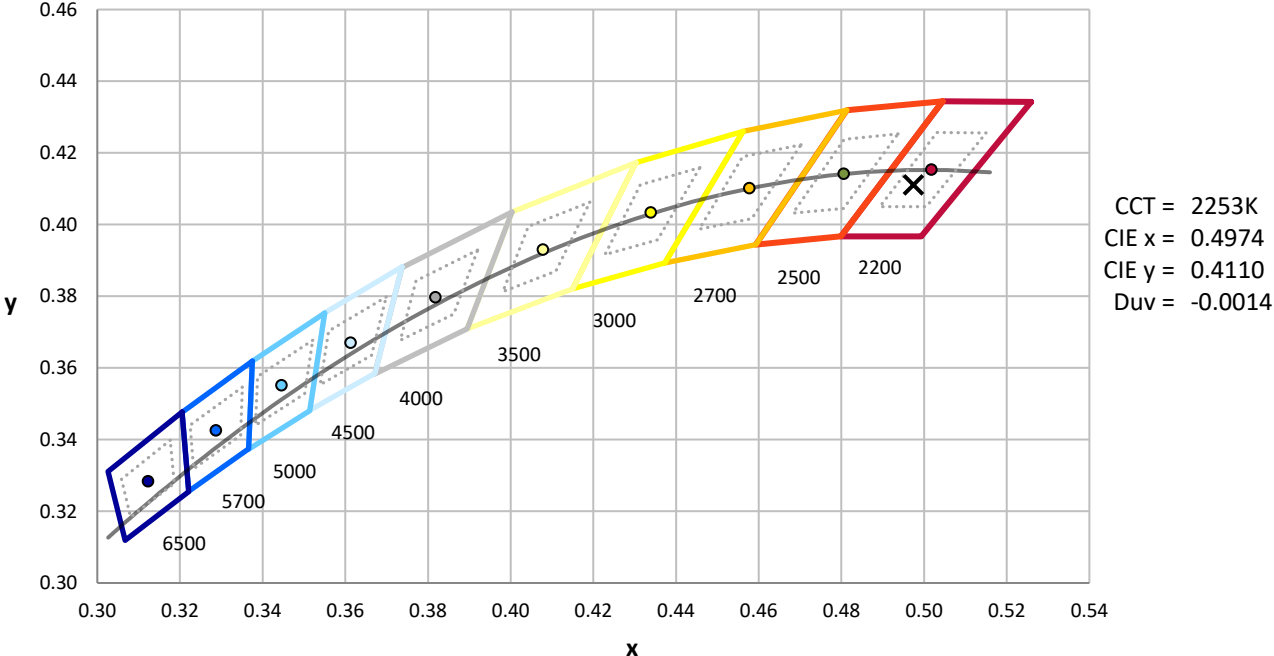
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085	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 2200K 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	117	NR	620	896	NR	750	20	NR	880	0	NR
365	0	NR	495	137	NR	625	838	NR	755	17	NR	885	0	NR
370	0	NR	500	160	NR	630	774	NR	760	14	NR	890	0	NR
375	0	NR	505	183	NR	635	704	NR	765	12	NR	895	0	NR
380	0	NR	510	202	NR	640	635	NR	770	10	NR	900	0	NR
385	0	NR	515	219	NR	645	565	NR	775	9	NR	905	0	NR
390	0	NR	520	235	NR	650	501	NR	780	7	NR	910	0	NR
395	0	NR	525	249	NR	655	440	NR	785	6	NR	915	0	NR
400	0	NR	530	263	NR	660	383	NR	790	5	NR	920	0	NR
405	0	NR	535	281	NR	665	332	NR	795	5	NR	925	0	NR
410	1	NR	540	302	NR	670	286	NR	800	4	NR	930	0	NR
415	3	NR	545	331	NR	675	245	NR	805	3	NR	935	0	NR
420	6	NR	550	366	NR	680	210	NR	810	3	NR	940	0	NR
425	12	NR	555	411	NR	685	178	NR	815	3	NR	945	0	NR
430	21	NR	560	469	NR	690	152	NR	820	2	NR	950	0	NR
435	38	NR	565	536	NR	695	129	NR	825	2	NR	955	0	NR
440	66	NR	570	614	NR	700	109	NR	830	2	NR	960	0	NR
445	122	NR	575	701	NR	705	92	NR	835	1	NR	965	0	NR
450	215	NR	580	785	NR	710	77	NR	840	1	NR	970	0	NR
455	236	NR	585	863	NR	715	66	NR	845	1	NR	975	0	NR
460	170	NR	590	928	NR	720	55	NR	850	1	NR	980	0	NR
465	148	NR	595	971	NR	725	47	NR	855	1	NR	985	0	NR
470	132	NR	600	994	NR	730	40	NR	860	1	NR	990	0	NR
475	104	NR	605	996	NR	735	33	NR	865	1	NR	995	0	NR
480	97	NR	610	979	NR	740	28	NR	870	1	NR	1000	0	NR
485	105	NR	615	943	NR	745	24	NR	875	0	NR			

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**Scotopic Flux vs. Wavelength**



**Scotopic Lumens: NR**

**S/P: 0.96**

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	117	NR	620	896	NR	750	20	NR	880	0	NR
365	0	NR	495	137	NR	625	838	NR	755	17	NR	885	0	NR
370	0	NR	500	160	NR	630	774	NR	760	14	NR	890	0	NR
375	0	NR	505	183	NR	635	704	NR	765	12	NR	895	0	NR
380	0	NR	510	202	NR	640	635	NR	770	10	NR	900	0	NR
385	0	NR	515	219	NR	645	565	NR	775	9	NR	905	0	NR
390	0	NR	520	235	NR	650	501	NR	780	7	NR	910	0	NR
395	0	NR	525	249	NR	655	440	NR	785	6	NR	915	0	NR
400	0	NR	530	263	NR	660	383	NR	790	5	NR	920	0	NR
405	0	NR	535	281	NR	665	332	NR	795	5	NR	925	0	NR
410	1	NR	540	302	NR	670	286	NR	800	4	NR	930	0	NR
415	3	NR	545	331	NR	675	245	NR	805	3	NR	935	0	NR
420	6	NR	550	366	NR	680	210	NR	810	3	NR	940	0	NR
425	12	NR	555	411	NR	685	178	NR	815	3	NR	945	0	NR
430	21	NR	560	469	NR	690	152	NR	820	2	NR	950	0	NR
435	38	NR	565	536	NR	695	129	NR	825	2	NR	955	0	NR
440	66	NR	570	614	NR	700	109	NR	830	2	NR	960	0	NR
445	122	NR	575	701	NR	705	92	NR	835	1	NR	965	0	NR
450	215	NR	580	785	NR	710	77	NR	840	1	NR	970	0	NR
455	236	NR	585	863	NR	715	66	NR	845	1	NR	975	0	NR
460	170	NR	590	928	NR	720	55	NR	850	1	NR	980	0	NR
465	148	NR	595	971	NR	725	47	NR	855	1	NR	985	0	NR
470	132	NR	600	994	NR	730	40	NR	860	1	NR	990	0	NR
475	104	NR	605	996	NR	735	33	NR	865	1	NR	995	0	NR
480	97	NR	610	979	NR	740	28	NR	870	1	NR	1000	0	NR
485	105	NR	615	943	NR	745	24	NR	875	0	NR			

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Melanopic Flux vs. Wavelength



Melanopic Lumens: NR

M/P: 1.71

λ (nm)	Power W <sup>2</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>2</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>2</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>2</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>2</sup> /nm	Lumens (φ/nm)
360	0	NR	490	117	NR	620	896	NR	750	20	NR	880	0	NR
365	0	NR	495	137	NR	625	838	NR	755	17	NR	885	0	NR
370	0	NR	500	160	NR	630	774	NR	760	14	NR	890	0	NR
375	0	NR	505	183	NR	635	704	NR	765	12	NR	895	0	NR
380	0	NR	510	202	NR	640	635	NR	770	10	NR	900	0	NR
385	0	NR	515	219	NR	645	565	NR	775	9	NR	905	0	NR
390	0	NR	520	235	NR	650	501	NR	780	7	NR	910	0	NR
395	0	NR	525	249	NR	655	440	NR	785	6	NR	915	0	NR
400	0	NR	530	263	NR	660	383	NR	790	5	NR	920	0	NR
405	0	NR	535	281	NR	665	332	NR	795	5	NR	925	0	NR
410	1	NR	540	302	NR	670	286	NR	800	4	NR	930	0	NR
415	3	NR	545	331	NR	675	245	NR	805	3	NR	935	0	NR
420	6	NR	550	366	NR	680	210	NR	810	3	NR	940	0	NR
425	12	NR	555	411	NR	685	178	NR	815	3	NR	945	0	NR
430	21	NR	560	469	NR	690	152	NR	820	2	NR	950	0	NR
435	38	NR	565	536	NR	695	129	NR	825	2	NR	955	0	NR
440	66	NR	570	614	NR	700	109	NR	830	2	NR	960	0	NR
445	122	NR	575	701	NR	705	92	NR	835	1	NR	965	0	NR
450	215	NR	580	785	NR	710	77	NR	840	1	NR	970	0	NR
455	236	NR	585	863	NR	715	66	NR	845	1	NR	975	0	NR
460	170	NR	590	928	NR	720	55	NR	850	1	NR	980	0	NR
465	148	NR	595	971	NR	725	47	NR	855	1	NR	985	0	NR
470	132	NR	600	994	NR	730	40	NR	860	1	NR	990	0	NR
475	104	NR	605	996	NR	735	33	NR	865	1	NR	995	0	NR
480	97	NR	610	979	NR	740	28	NR	870	1	NR	1000	0	NR
485	105	NR	615	943	NR	745	24	NR	875	0	NR			

**Summary**

$R_f = 76.9$   
 $R_g = 92.7$   
 CIE  $R_a = 70.6$   
 $R_9 = -36.0$



**Color Vector Graphics**





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

CES01 = 87	CES26 = 76	CES51 = 88	CES76 = 78
CES02 = 65	CES27 = 94	CES52 = 85	CES77 = 75
CES03 = 32	CES28 = 93	CES53 = 80	CES78 = 79
CES04 = 72	CES29 = 81	CES54 = 86	CES79 = 82
CES05 = 51	CES30 = 91	CES55 = 83	CES80 = 81
CES06 = 52	CES31 = 83	CES56 = 77	CES81 = 51
CES07 = 44	CES32 = 75	CES57 = 75	CES82 = 92
CES08 = 42	CES33 = 88	CES58 = 76	CES83 = 88
CES09 = 29	CES34 = 88	CES59 = 84	CES84 = 90
CES10 = 79	CES35 = 94	CES60 = 91	CES85 = 65
CES11 = 62	CES36 = 90	CES61 = 82	CES86 = 48
CES12 = 68	CES37 = 97	CES62 = 91	CES87 = 76
CES13 = 45	CES38 = 98	CES63 = 86	CES88 = 78
CES14 = 75	CES39 = 97	CES64 = 70	CES89 = 61
CES15 = 72	CES40 = 94	CES65 = 71	CES90 = 80
CES16 = 48	CES41 = 95	CES66 = 71	CES91 = 80
CES17 = 51	CES42 = 89	CES67 = 70	CES92 = 51
CES18 = 57	CES43 = 80	CES68 = 74	CES93 = 68
CES19 = 74	CES44 = 99	CES69 = 84	CES94 = 44
CES20 = 68	CES45 = 83	CES70 = 72	CES95 = 66
CES21 = 88	CES46 = 81	CES71 = 75	CES96 = 75
CES22 = 81	CES47 = 88	CES72 = 89	CES97 = 76
CES23 = 92	CES48 = 73	CES73 = 68	CES98 = 72
CES24 = 92	CES49 = 82	CES74 = 85	CES99 = 63
CES25 = 73	CES50 = 87	CES75 = 80	



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)