

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: P868485

Luminaire Tested: **EMM2-HTN-SA3A-722-U-T2U-HSS**

Issue Date: 08/22/2024



**Test Information**

Test Method: LM-79-08  
Report Number: P868485  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 08/22/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: EMM2-HTN-SA3A-722-U-T2U-HSS  
Description: EPIC MODERN TALL HOUSING DISCRETE LED ARRAYS 130W 70CRI 2200K  
FIXTURE w/ TYPE II URBAN DISTRIBUTION OPTIC AND HOUSE SIDE SHIELD  
Light Source: (30) 2200K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

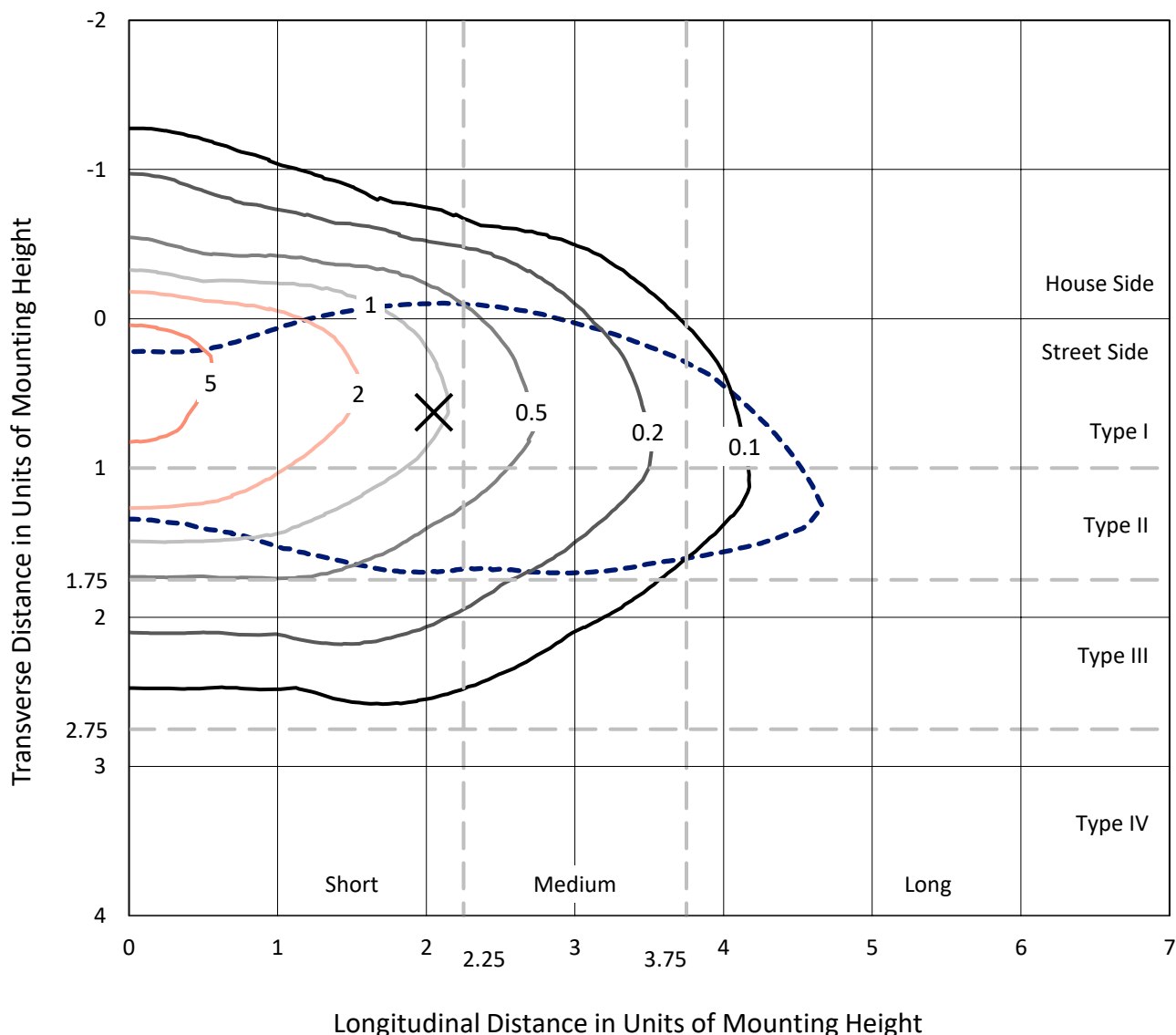
Lumens per Lamp: N/A  
Luminaire Lumens: 9841.2 lumens  
Efficiency: N/A  
Efficacy: 87.1 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 0.33' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B1 - U0 - G2

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

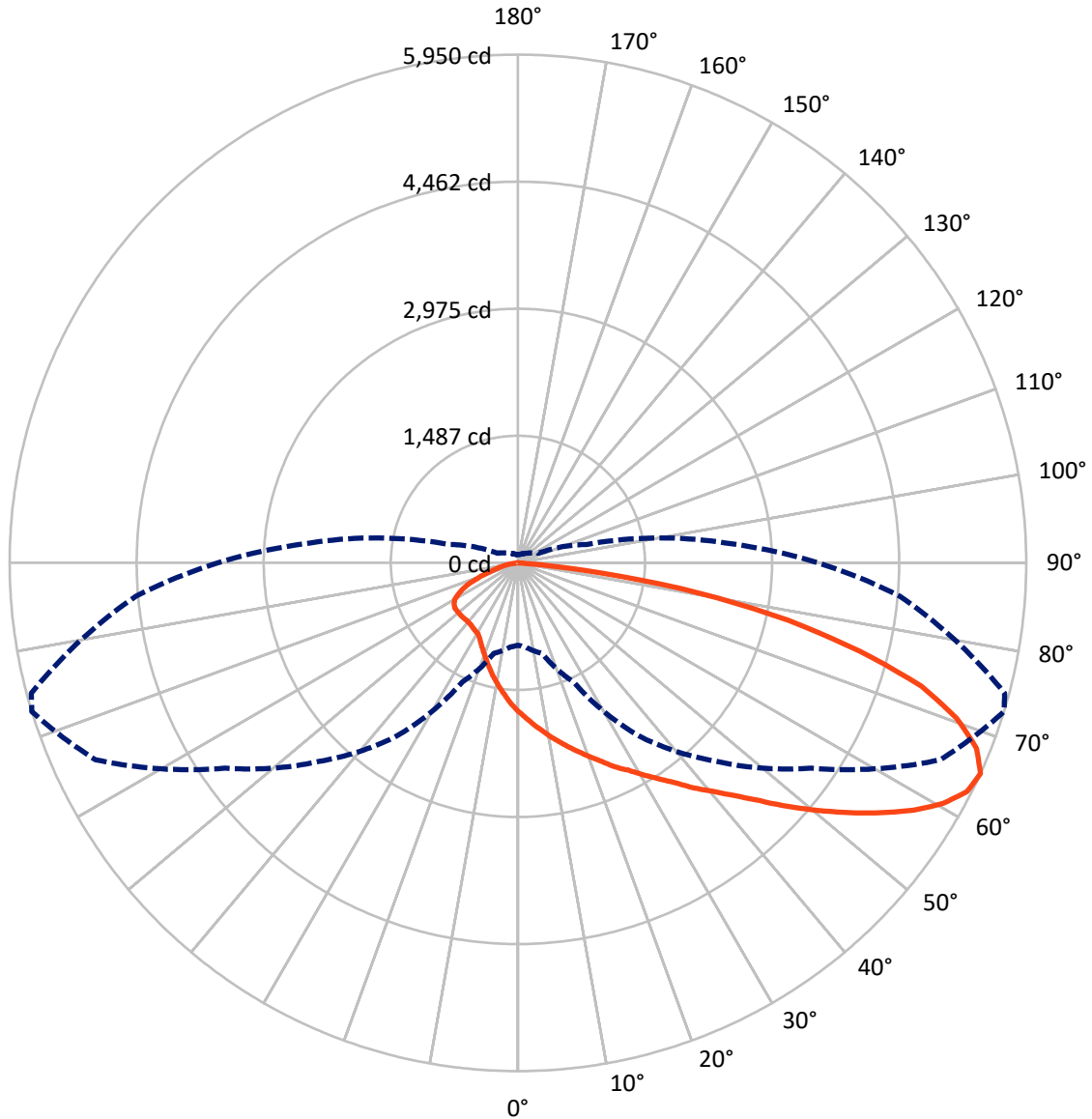
× Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 7 fc  
 Type II - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 73-Deg Lateral      - - - Horizontal Cone Through 65-Deg Vertical

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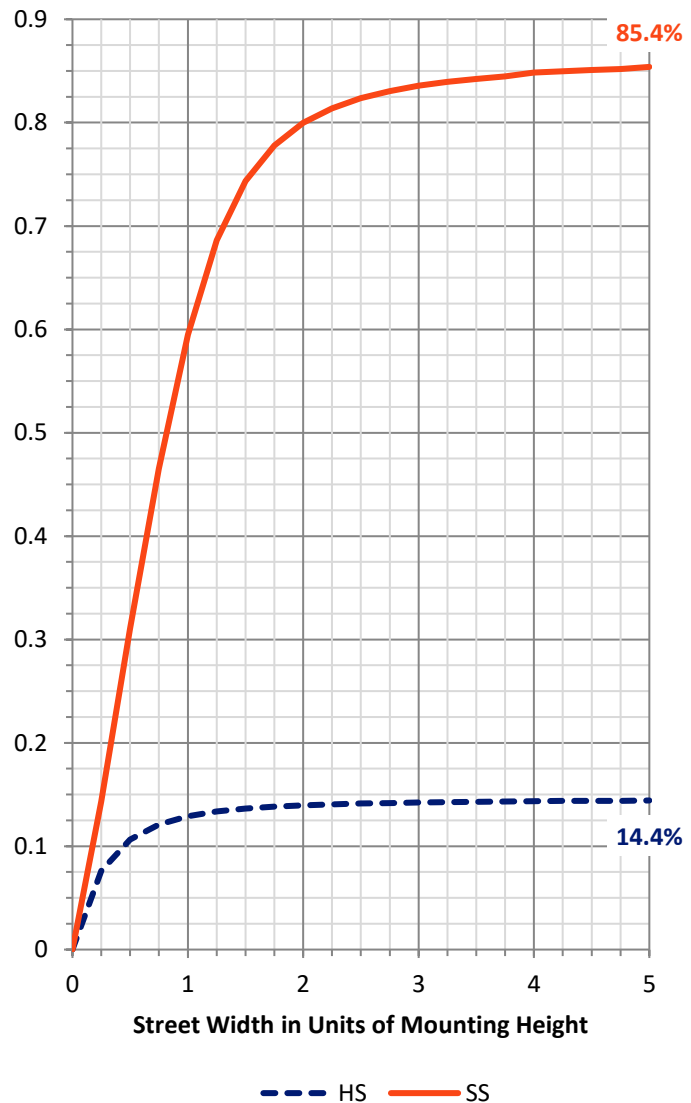
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1431.1	0.0	1431.1
	% Fixture	14.5	0.0	14.5
<b>Street Side</b>	Lumens	8410.2	0.0	8410.2
	% Fixture	85.5	0.0	85.5
<b>Total</b>	Lumens	9841.2	0.0	9841.2
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	168.5	1.7
10°-20°	512.2	5.2
20°-30°	857.8	8.7
30°-40°	1293.9	13.1
40°-50°	1828.2	18.6
50°-60°	2057.1	20.9
60°-70°	1844.7	18.7
70°-80°	1121.9	11.4
80°-90°	157.0	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°	9841.2	100.0
0°-180°	9841.2	100.0



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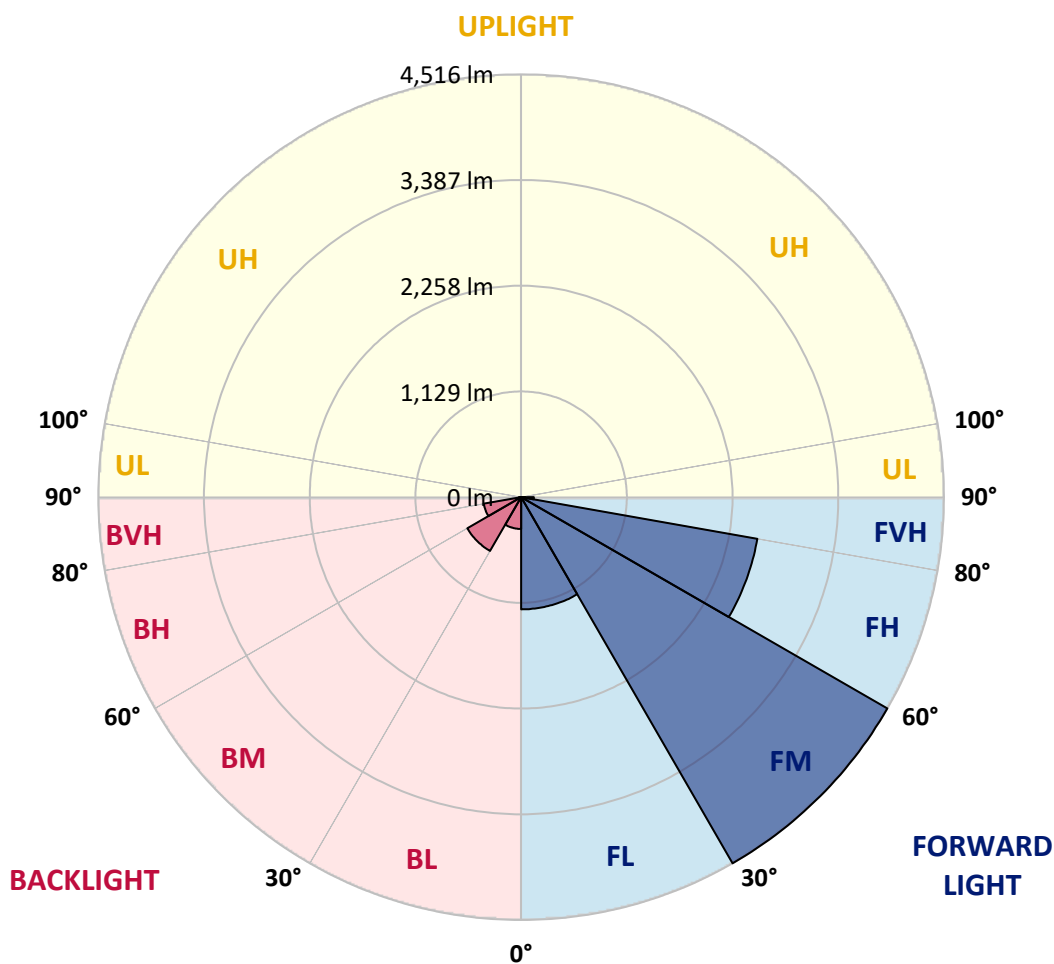
CATALOG NUMBER: EMM2-HTN-SA3A-722-U-T2U-HSS

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1198.5	12.2			
FM (30°-60°)	4515.6	45.9			
FH (60°-80°)	2561.3	26.0			G2/5000
FVH (80°-90°)	134.9	1.4			G2/225
BL (0°-30°)	340.0	3.5	B1/500		
BM (30°-60°)	663.6	6.7	B1/1000		
BH (60°-80°)	405.4	4.1	B1/500		G1/500
BVH (80°-90°)	22.1	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





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	73°	75°	85°
0°	1745.9	1745.9	1745.9	1745.9	1745.9	1745.9	1745.9	1745.9	1745.9	1745.9	1745.9
2.5°	2015.1	2003.5	1986.2	1971.7	1945.6	1910.9	1881.9	1844.3	1818.2	1809.6	1771.9
5°	2307.5	2293.1	2272.8	2238.1	2168.6	2128.0	2052.8	1965.9	1896.4	1881.9	1795.1
7.5°	2608.6	2602.9	2556.5	2504.4	2420.5	2330.7	2214.9	2078.8	1977.5	1954.3	1821.1
10°	2863.4	2837.4	2811.3	2762.1	2672.3	2545.0	2394.4	2206.2	2064.3	2026.7	1847.2
12.5°	3016.9	3008.2	2985.0	2927.1	2840.3	2730.3	2550.7	2330.7	2148.3	2096.2	1873.2
15°	3129.8	3138.5	3115.3	3077.7	2987.9	2883.7	2710.0	2461.0	2238.1	2177.3	1902.2
17.5°	3236.9	3231.1	3228.2	3184.8	3103.7	2999.5	2822.9	2568.1	2327.8	2261.2	1931.2
20°	3297.7	3300.6	3294.8	3277.5	3199.3	3098.0	2932.9	2695.5	2426.2	2351.0	1968.8
22.5°	3329.6	3341.2	3352.7	3349.8	3286.1	3208.0	3037.1	2796.8	2527.6	2449.4	2015.1
25°	3349.8	3358.5	3384.6	3419.3	3361.4	3297.7	3153.0	2918.4	2646.3	2556.5	2070.1
27.5°	3367.2	3378.8	3410.6	3462.8	3416.4	3378.8	3254.3	3022.7	2747.6	2666.6	2133.8
30°	3480.1	3494.6	3494.6	3520.7	3468.5	3459.9	3367.2	3147.2	2875.0	2788.2	2214.9
32.5°	3778.3	3749.4	3697.3	3671.2	3546.7	3549.6	3477.2	3271.7	3011.1	2924.2	2316.2
35°	4036.0	4036.0	3972.3	3888.4	3688.6	3648.1	3604.6	3436.7	3158.8	3074.8	2449.4
37.5°	4285.0	4287.9	4221.3	4148.9	3920.2	3775.4	3752.3	3595.9	3341.2	3242.7	2588.4
40°	4441.4	4458.7	4441.4	4386.4	4166.3	3998.4	3897.0	3775.4	3514.9	3439.6	2747.6
42.5°	4467.4	4502.2	4565.9	4583.2	4345.8	4198.2	4082.3	3960.7	3723.3	3639.4	2930.0
45°	4400.8	4412.4	4554.3	4574.5	4479.0	4357.4	4279.2	4177.9	3972.3	3899.9	3132.7
47.5°	4218.4	4195.3	4244.5	4421.1	4458.7	4452.9	4473.2	4424.0	4261.9	4169.2	3355.6
50°	3827.6	3836.2	3995.5	4209.7	4340.0	4487.7	4618.0	4673.0	4554.3	4461.6	3595.9
52.5°	3115.3	3155.9	3459.9	3966.5	4192.4	4464.5	4722.2	4907.5	4858.3	4768.5	3833.4
55°	2559.4	2620.2	2924.2	3575.7	3989.7	4351.6	4783.0	5153.6	5162.3	5092.8	4050.5
57.5°	2003.5	2052.8	2374.1	2970.6	3700.2	4175.0	4791.7	5365.0	5463.4	5382.3	4241.6
60°	1569.2	1604.0	1792.2	2475.5	3344.0	3923.1	4728.0	5532.9	5718.2	5657.4	4406.6
62.5°	1190.0	1216.0	1383.9	1957.2	2906.9	3627.8	4513.7	5593.7	5897.7	5839.8	4499.3
65°	964.1	987.3	1097.3	1537.4	2475.5	3286.1	4189.5	5454.7	5949.8	5897.7	4487.7
67.5°	787.5	796.2	886.0	1198.6	2093.3	2901.1	3714.6	5092.8	5790.6	5787.7	4354.5
70°	637.0	660.1	735.4	955.4	1740.1	2458.1	3161.6	4525.3	5446.0	5475.0	4088.1
72.5°	541.4	547.2	613.8	790.4	1418.7	1994.8	2617.3	3871.0	4939.3	4962.5	3671.2
75°	457.5	466.1	515.4	639.9	1152.3	1583.7	2104.9	3126.9	4134.5	4232.9	3092.2
77.5°	393.8	396.7	431.4	526.9	819.4	1190.0	1543.2	2345.2	3236.9	3306.4	2429.1
80°	309.8	315.6	353.2	416.9	570.4	773.0	1065.5	1604.0	2162.8	2240.9	1682.2
82.5°	144.8	162.1	170.8	228.7	298.2	382.2	503.8	668.8	978.6	975.7	784.6
85°	14.5	11.6	11.6	17.4	26.1	26.1	31.8	37.6	75.3	89.8	69.5
87.5°	0.0	0.0	0.0	2.9	5.8	5.8	5.8	8.7	8.7	8.7	8.7
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°	1745.9	1745.9	1745.9	1745.9	1745.9	1745.9	1745.9	1745.9	1745.9	1745.9	1745.9
2.5°	1754.5	1728.5	1682.2	1638.7	1609.8	1586.6	1549.0	1525.8	1508.4	1485.3	1482.4
5°	1748.7	1702.4	1609.8	1531.6	1456.3	1392.6	1326.0	1285.5	1242.1	1221.8	1239.2
7.5°	1754.5	1679.3	1534.5	1415.8	1302.9	1201.5	1114.7	1059.7	1019.1	998.9	1001.8
10°	1757.4	1659.0	1470.8	1305.8	1161.0	1042.3	943.9	868.6	819.4	807.8	793.3
12.5°	1751.6	1632.9	1407.1	1198.6	1024.9	894.6	778.8	720.9	671.7	648.5	648.5
15°	1757.4	1612.7	1340.5	1100.2	903.3	752.8	654.3	590.6	561.7	541.4	544.3
17.5°	1757.4	1595.3	1276.8	1004.7	784.6	645.6	555.9	503.8	474.8	463.2	460.3
20°	1777.7	1580.8	1216.0	914.9	680.4	550.1	477.7	437.2	414.0	402.4	396.7
22.5°	1792.2	1569.2	1161.0	828.1	593.5	480.6	419.8	382.2	364.8	359.0	359.0
25°	1818.2	1566.3	1111.8	744.1	524.0	428.5	373.5	344.5	330.1	324.3	324.3
27.5°	1855.9	1572.1	1065.5	671.7	471.9	376.4	335.9	312.7	304.0	301.1	298.2
30°	1910.9	1598.2	1036.5	616.7	422.7	344.5	306.9	292.4	286.6	283.7	283.7
32.5°	1983.3	1644.5	1024.9	587.7	393.8	318.5	286.6	275.1	269.3	269.3	266.4
35°	2073.0	1696.6	1016.2	561.7	373.5	301.1	272.2	260.6	257.7	257.7	257.7
37.5°	2180.1	1751.6	1001.8	544.3	361.9	286.6	260.6	249.0	249.0	249.0	249.0
40°	2298.9	1832.7	998.9	532.7	353.2	277.9	249.0	237.4	237.4	237.4	237.4
42.5°	2432.0	1919.6	996.0	524.0	347.4	272.2	237.4	225.8	225.8	225.8	225.8
45°	2594.2	2029.6	1001.8	518.3	347.4	266.4	228.7	214.3	211.4	211.4	211.4
47.5°	2753.4	2133.8	1007.6	512.5	341.6	257.7	217.1	202.7	199.8	196.9	196.9
50°	2924.2	2240.9	1007.6	506.7	335.9	249.0	208.5	188.2	185.3	182.4	182.4
52.5°	3092.2	2330.7	1010.5	498.0	321.4	234.5	194.0	176.6	170.8	167.9	165.0
55°	3254.3	2426.2	1013.3	483.5	304.0	220.0	185.3	165.0	156.3	150.6	150.6
57.5°	3375.9	2504.4	998.9	454.6	280.8	205.6	170.8	150.6	139.0	133.2	133.2
60°	3491.7	2553.6	972.8	411.1	257.7	191.1	159.2	136.1	124.5	118.7	118.7
62.5°	3538.0	2562.3	912.0	335.9	228.7	176.6	144.8	124.5	115.8	112.9	112.9
65°	3512.0	2524.7	830.9	266.4	202.7	159.2	133.2	115.8	104.2	95.5	95.5
67.5°	3370.1	2394.4	720.9	211.4	176.6	144.8	121.6	104.2	92.6	84.0	84.0
70°	3100.8	2185.9	561.7	167.9	153.4	127.4	110.0	95.5	84.0	75.3	75.3
72.5°	2704.2	1896.4	408.2	141.9	133.2	112.9	98.4	86.9	75.3	69.5	69.5
75°	2229.4	1462.1	289.5	121.6	118.7	101.3	89.8	78.2	69.5	63.7	63.7
77.5°	1673.5	1019.1	225.8	107.1	104.2	92.6	81.1	72.4	63.7	60.8	57.9
80°	1114.7	631.2	170.8	81.1	78.2	72.4	66.6	60.8	52.1	46.3	46.3
82.5°	498.0	266.4	86.9	46.3	40.5	34.7	29.0	20.3	20.3	17.4	17.4
85°	52.1	34.7	17.4	11.6	11.6	8.7	8.7	8.7	5.8	5.8	5.8
87.5°	8.7	8.7	5.8	5.8	5.8	2.9	2.9	2.9	2.9	2.9	2.9
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	R9:	-36.0
R2:	88.7	R10:	78.2
R3:	85.4	R11:	61.0
R4:	63.5	R12:	74.2
R5:	69.0	R13:	72.8
R6:	88.9	R14:	92.2
R7:	68.5	R15:	58.0
R8:	32.0		



**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>^</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			

**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)