

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: P868868

Luminaire Tested: **EMM2-HSN-SA2B-722-U-T2U**

Issue Date: 08/22/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P868868  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 08/22/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: EMM2-HSN-SA2B-722-U-T2U  
Description: EPIC MODERN SHORT HOUSING DISCRETE LED ARRAYS 100W 70CRI 2200K  
FITXURE w/ TYPE II URBAN DISTRIBUTION OPTIC  
Light Source: (20) 2200K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

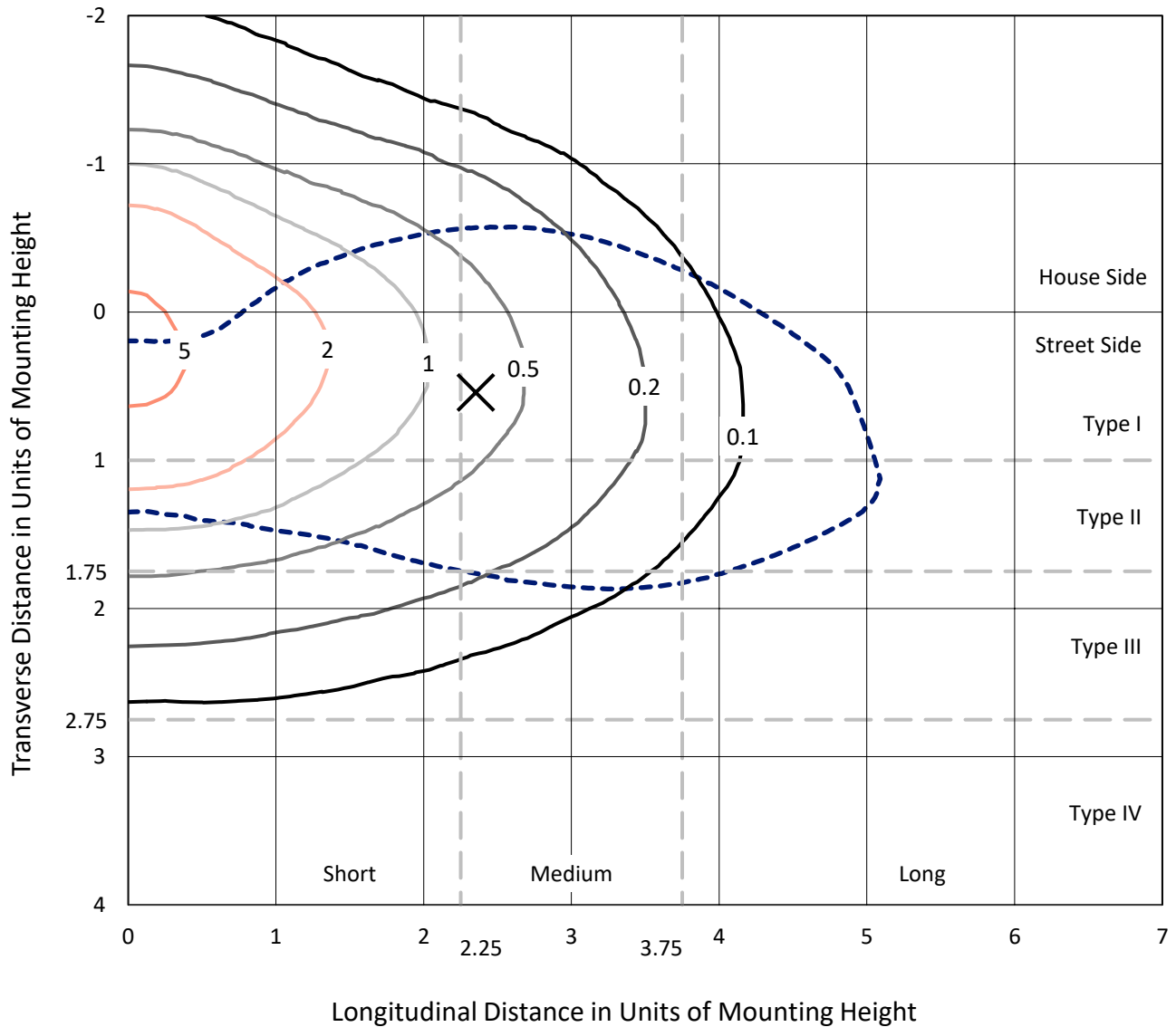
Lumens per Lamp: N/A  
Luminaire Lumens: 11134.4 lumens  
Efficiency: N/A  
Efficacy: 123.7 lumens/watt  
Luminous Opening: Rectangular (W 0.67' x L: 0.33' x H: 0')  
IES Classification: Type III - Medium  
BUG Rating: B3 - U0 - G3

Input Watts (W): 90  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: 0.99  
Total Harmonic Distortion (THDi): 6.20%  
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-SA2B-722-U-T2U

### Iso-Footcandle Lines of Horizontal Illumination

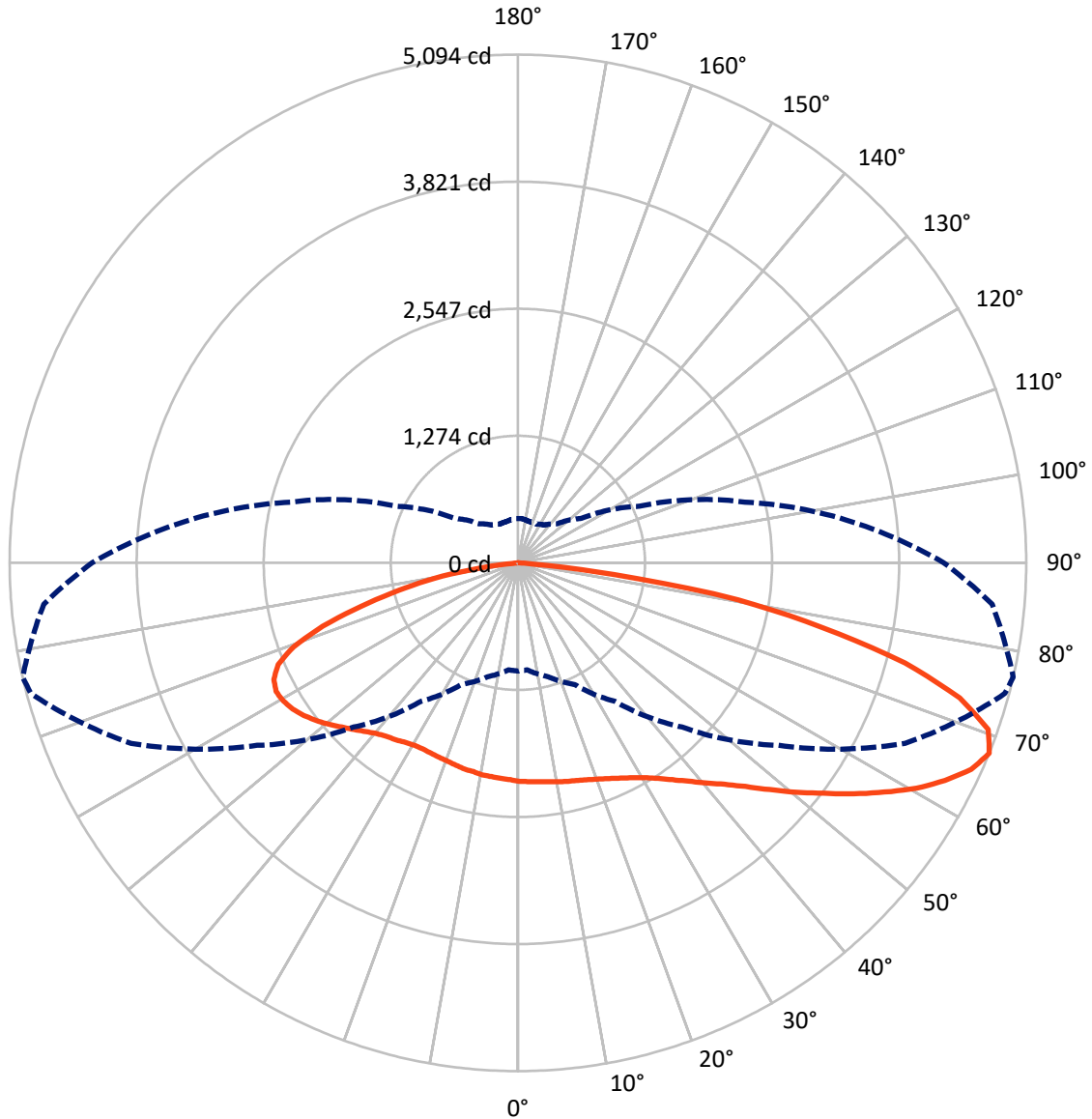
× Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 6 fc  
 Type III - Medium - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 77-Deg Lateral      - - - Horizontal Cone Through 67.5-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	3702.6	0.0	3702.6
	% Fixture	33.3	0.0	33.3
<b>Street Side</b>	Lumens	7431.9	0.0	7431.9
	% Fixture	66.7	0.0	66.7
<b>Total</b>	Lumens	11134.4	0.0	11134.4
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	210.4	1.9
10°-20°	638.1	5.7
20°-30°	1075.8	9.7
30°-40°	1526.6	13.7
40°-50°	1931.5	17.3
50°-60°	2115.9	19.0
60°-70°	2045.4	18.4
70°-80°	1375.6	12.4
80°-90°	215.0	1.9
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°	11134.4	100.0
0°-180°	11134.4	100.0



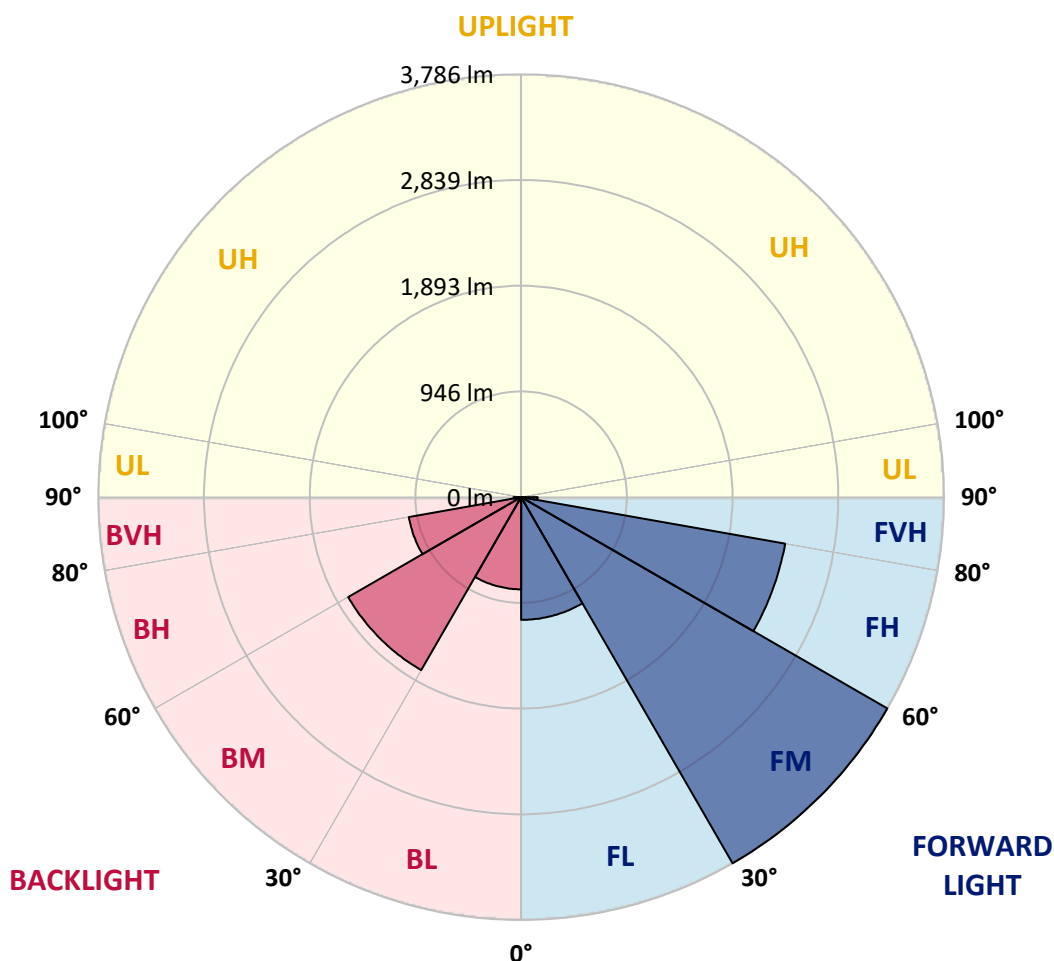
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1099.0	9.9			
FM (30°-60°)	3785.9	34.0			
FH (60°-80°)	2399.8	21.6			G2/5000
FVH (80°-90°)	147.2	1.3			G2/225
BL (0°-30°)	825.4	7.4	B2/1000		
BM (30°-60°)	1788.3	16.1	B2/2500		
BH (60°-80°)	1021.2	9.2	B3/2500		G3/2500
BVH (80°-90°)	67.8	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 III Medium





REPORT NUMBER: P868868

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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	2189.2	2189.2	2189.2	2189.2	2189.2	2189.2	2189.2	2189.2	2189.2	2189.2	2189.2
2.5°	2237.6	2235.4	2224.4	2228.8	2215.6	2224.4	2211.2	2200.2	2198.0	2195.8	2198.0
5°	2308.1	2297.1	2286.1	2279.5	2268.4	2264.0	2242.0	2220.0	2206.8	2204.6	2200.2
7.5°	2389.6	2385.2	2369.7	2360.9	2330.1	2314.7	2283.9	2244.2	2224.4	2215.6	2204.6
10°	2473.3	2484.3	2464.5	2446.8	2411.6	2378.6	2325.7	2275.0	2235.4	2231.0	2206.8
12.5°	2576.8	2574.6	2561.4	2530.5	2488.7	2442.4	2378.6	2308.1	2255.2	2246.4	2211.2
15°	2669.3	2667.1	2649.4	2620.8	2565.8	2508.5	2422.6	2341.1	2275.0	2261.8	2220.0
17.5°	2755.2	2750.8	2739.7	2708.9	2640.6	2570.2	2486.5	2378.6	2299.3	2283.9	2226.6
20°	2830.0	2834.4	2821.2	2790.4	2726.5	2651.7	2545.9	2427.0	2330.1	2312.5	2246.4
22.5°	2911.5	2913.7	2907.1	2896.1	2814.6	2735.3	2620.8	2482.1	2365.3	2347.7	2268.4
25°	2997.4	2999.6	3004.0	2997.4	2904.9	2819.0	2697.9	2550.3	2413.8	2389.6	2299.3
27.5°	3096.5	3098.7	3107.5	3094.3	2995.2	2904.9	2783.8	2623.0	2464.5	2438.0	2325.7
30°	3208.9	3217.7	3211.1	3206.6	3092.1	3004.0	2869.7	2697.9	2530.5	2497.5	2372.0
32.5°	3343.2	3341.0	3327.8	3314.6	3197.8	3105.3	2966.6	2794.8	2612.0	2574.6	2446.8
35°	3440.1	3440.1	3420.3	3413.7	3305.8	3208.9	3072.3	2902.7	2704.5	2669.3	2526.1
37.5°	3499.6	3508.4	3493.0	3497.4	3393.8	3303.6	3178.0	3012.8	2805.8	2775.0	2623.0
40°	3521.6	3543.6	3556.8	3574.4	3470.9	3393.8	3290.3	3131.8	2935.8	2900.5	2739.7
42.5°	3526.0	3559.0	3605.3	3642.7	3526.0	3462.1	3398.3	3252.9	3063.5	3032.7	2867.5
45°	3504.0	3488.6	3600.9	3605.3	3556.8	3517.2	3493.0	3398.3	3248.5	3197.8	3026.1
47.5°	3336.6	3319.0	3349.8	3490.8	3519.4	3541.4	3589.9	3567.8	3433.5	3393.8	3208.9
50°	3065.7	3056.9	3180.2	3332.2	3426.9	3539.2	3669.1	3730.8	3638.3	3614.1	3440.1
52.5°	2618.6	2594.4	2845.5	3140.6	3305.8	3517.2	3724.2	3898.2	3869.6	3834.3	3638.3
55°	2334.5	2334.5	2504.1	2871.9	3151.6	3437.9	3759.4	4074.4	4125.0	4085.4	3865.2
57.5°	2030.6	2054.8	2231.0	2484.3	2929.1	3292.5	3755.0	4221.9	4371.7	4334.3	4105.2
60°	1770.7	1790.5	1891.8	2147.3	2667.1	3100.9	3706.6	4343.1	4600.7	4587.5	4316.6
62.5°	1506.4	1530.6	1612.1	1852.2	2321.3	2880.7	3605.3	4409.1	4816.6	4803.4	4530.3
65°	1295.0	1297.2	1378.7	1579.1	1975.5	2614.2	3426.9	4395.9	4984.0	4992.8	4710.9
67.5°	1083.6	1077.0	1182.7	1345.6	1693.6	2327.9	3189.0	4279.2	5054.4	5094.1	4770.3
70°	797.3	806.1	953.6	1134.2	1431.5	1997.5	2856.5	4052.4	4939.9	5001.6	4633.8
72.5°	599.0	616.7	759.8	947.0	1195.9	1667.2	2493.1	3658.1	4620.6	4629.4	4217.5
75°	486.7	491.1	618.9	786.2	980.1	1336.8	2002.0	3054.7	3907.0	4008.3	3583.3
77.5°	414.0	409.6	471.3	634.3	790.7	1068.1	1508.6	2323.5	3067.9	3114.1	2805.8
80°	352.4	350.2	372.2	513.2	618.9	762.0	1032.9	1618.7	2189.2	2239.8	1993.1
82.5°	185.0	198.2	193.8	317.1	350.2	400.8	495.5	735.6	955.8	969.0	916.2
85°	8.8	8.8	8.8	13.2	22.0	35.2	68.3	68.3	74.9	143.2	163.0
87.5°	2.2	2.2	4.4	4.4	4.4	6.6	6.6	8.8	8.8	8.8	8.8
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: P868868  
 CATALOG NUMBER: EMM2-HSN-SA2B-722-U-T2U

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2189.2	2189.2	2189.2	2189.2	2189.2	2189.2	2189.2	2189.2	2189.2	2189.2	2189.2
2.5°	2193.6	2184.7	2171.5	2173.7	2171.5	2171.5	2160.5	2151.7	2149.5	2153.9	2162.7
5°	2195.8	2182.5	2162.7	2156.1	2149.5	2145.1	2127.5	2114.3	2107.7	2112.1	2114.3
7.5°	2195.8	2175.9	2153.9	2140.7	2123.1	2109.9	2090.0	2072.4	2063.6	2065.8	2070.2
10°	2191.4	2169.3	2151.7	2125.3	2096.7	2081.2	2050.4	2028.4	2017.4	2019.6	2008.6
12.5°	2191.4	2167.1	2131.9	2107.7	2068.0	2035.0	2010.8	1986.5	1977.7	1968.9	1964.5
15°	2193.6	2162.7	2127.5	2076.8	2030.6	1995.3	1964.5	1949.1	1935.9	1931.5	1933.7
17.5°	2193.6	2162.7	2109.9	2050.4	1997.5	1953.5	1927.1	1909.5	1905.0	1900.6	1900.6
20°	2204.6	2164.9	2094.5	2024.0	1957.9	1911.7	1887.4	1876.4	1876.4	1869.8	1869.8
22.5°	2222.2	2169.3	2085.6	2002.0	1924.9	1874.2	1847.8	1834.6	1841.2	1836.8	1834.6
25°	2242.0	2184.7	2074.6	1971.1	1880.8	1828.0	1801.5	1792.7	1790.5	1779.5	1794.9
27.5°	2257.4	2195.8	2068.0	1940.3	1841.2	1779.5	1746.5	1731.1	1720.0	1724.5	1720.0
30°	2299.3	2226.6	2070.2	1913.9	1797.1	1722.3	1682.6	1665.0	1660.6	1660.6	1660.6
32.5°	2356.5	2266.2	2085.6	1902.8	1755.3	1667.2	1618.7	1601.1	1596.7	1587.9	1592.3
35°	2429.2	2325.7	2109.9	1885.2	1722.3	1603.3	1550.5	1526.2	1519.6	1510.8	1510.8
37.5°	2510.7	2385.2	2127.5	1876.4	1678.2	1537.3	1477.8	1447.0	1442.6	1433.7	1438.1
40°	2614.2	2466.7	2156.1	1858.8	1627.6	1477.8	1398.5	1347.8	1358.9	1363.3	1372.1
42.5°	2730.9	2570.2	2200.2	1841.2	1587.9	1416.1	1299.4	1248.7	1262.0	1257.6	1266.4
45°	2889.5	2691.3	2255.2	1834.6	1539.5	1341.2	1198.1	1140.8	1136.4	1129.8	1134.2
47.5°	3054.7	2836.7	2308.1	1821.4	1486.6	1248.7	1083.6	1010.9	993.3	984.5	975.6
50°	3226.5	2982.0	2369.7	1812.5	1416.1	1145.2	969.0	885.4	852.3	841.3	830.3
52.5°	3420.3	3138.4	2422.6	1790.5	1339.0	1037.3	865.5	770.8	733.4	711.4	713.6
55°	3625.1	3281.5	2471.1	1764.1	1250.9	936.0	762.0	682.7	645.3	638.7	638.7
57.5°	3814.5	3429.1	2506.3	1717.8	1162.9	836.9	676.1	607.9	590.2	599.0	599.0
60°	4008.3	3548.0	2523.9	1667.2	1072.6	753.2	616.7	561.6	552.8	570.4	572.6
62.5°	4164.7	3642.7	2519.5	1596.7	973.4	680.5	559.4	515.4	519.8	550.6	557.2
65°	4277.0	3689.0	2464.5	1491.0	878.7	616.7	508.7	466.9	466.9	488.9	495.5
67.5°	4268.2	3629.5	2354.3	1343.4	777.4	552.8	462.5	429.5	429.5	444.9	442.7
70°	4087.6	3424.7	2145.1	1165.1	678.3	497.7	422.9	398.6	396.4	403.0	400.8
72.5°	3653.7	3008.4	1819.2	962.4	585.8	442.7	383.2	361.2	356.8	348.0	341.4
75°	3015.0	2471.1	1420.5	766.4	495.5	389.8	345.8	326.0	308.3	319.3	312.7
77.5°	2338.9	1896.2	1057.1	594.6	403.0	339.2	308.3	286.3	281.9	321.5	308.3
80°	1706.8	1310.4	746.6	425.1	312.7	275.3	257.7	240.1	303.9	407.4	405.2
82.5°	757.6	632.1	341.4	202.6	145.4	121.1	101.3	114.5	191.6	187.2	193.8
85°	68.3	70.5	37.4	24.2	15.4	13.2	8.8	8.8	6.6	6.6	6.6
87.5°	8.8	8.8	6.6	6.6	4.4	4.4	4.4	4.4	2.2	2.2	2.2
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: 4π  
 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**

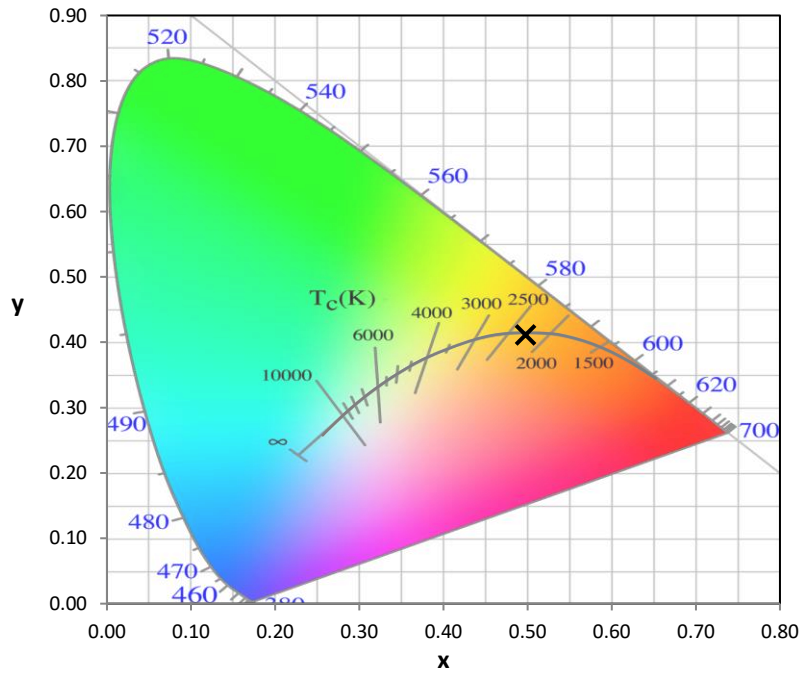
Stabilization Time: 29M  
 Operation Time: 1H 29M  
 Sphere Temperature (°C): 24.1

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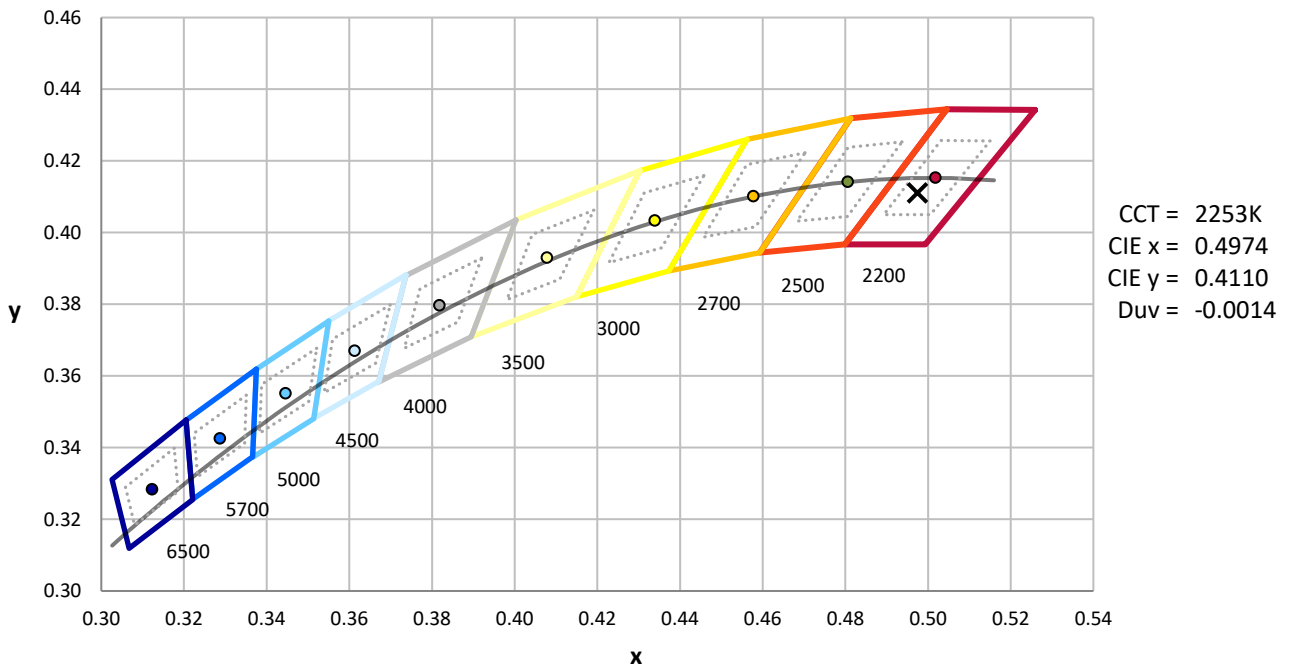
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085	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**

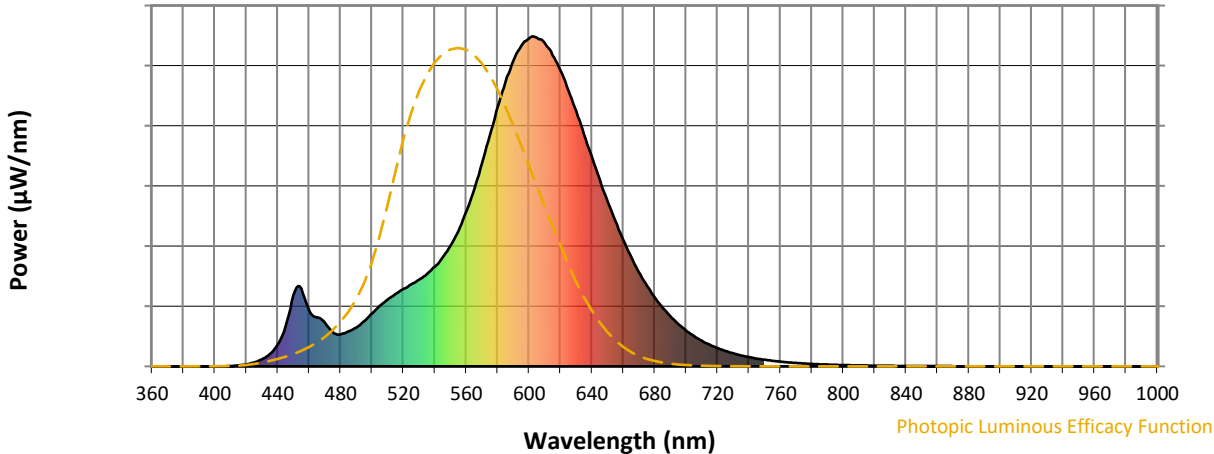


CCT = 2253K  
 CIE x = 0.4974  
 CIE y = 0.4110  
 Duv = -0.0014

Point lies inside the ANSI 2200K 4-step quadrangle

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**Photopic Flux vs. Wavelength**



**Photopic Lumens: NR**

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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**Scotopic Flux vs. Wavelength**



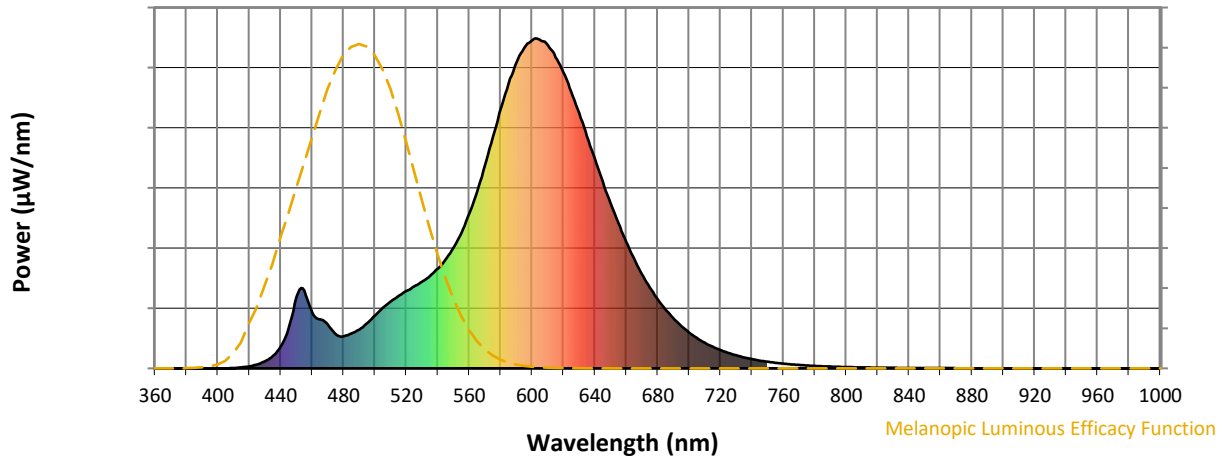
**Scotopic Lumens: NR**

**S/P: 0.96**

$\lambda$ (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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**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)