

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: P869043

Luminaire Tested: **EMM2-HSN-SA2B-722-U-T4W-HSS**

Issue Date: 08/22/2024



**Test Information**

Test Method: LM-79-08  
Report Number: P869043  
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-T4W-HSS  
Description: EPIC MODERN SHORT HOUSING DISCRETE LED ARRAYS 100W 70CRI 2200K  
FITURE w/ TYPE IV WIDE DISTRIBUTION OPTIC AND HOUSE SIDE SHIELD  
Light Source: (20) 2200K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

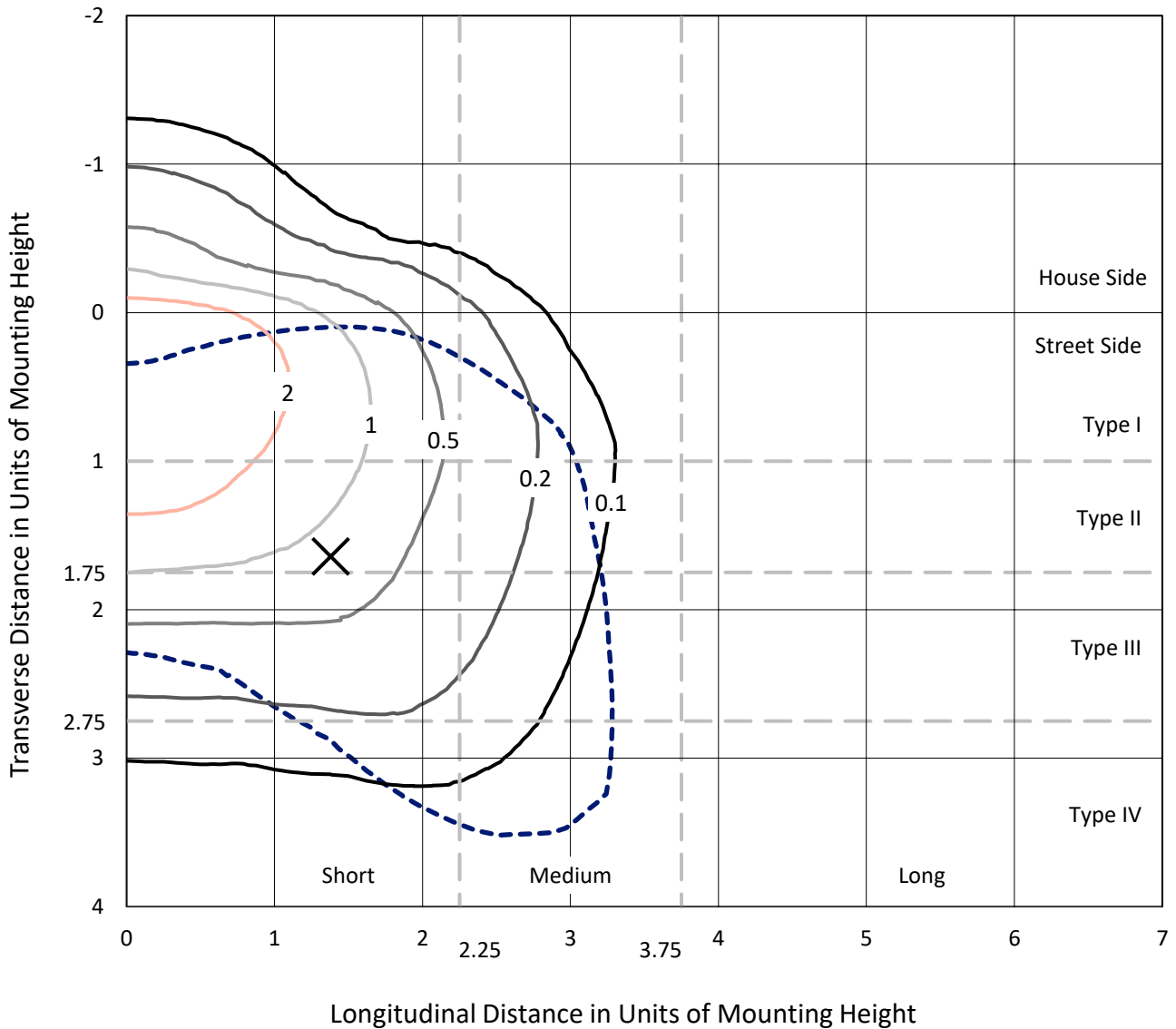
Lumens per Lamp: N/A  
Luminaire Lumens: 7813.9 lumens  
Efficiency: N/A  
Efficacy: 86.8 lumens/watt  
Luminous Opening: Rectangular (W 0.67' x L: 0.33' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B1 - U0 - G2

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

REPORT NUMBER: P869043  
 CATALOG NUMBER: EMM2-HSN-SA2B-722-U-T4W-HSS

### Iso-Footcandle Lines of Horizontal Illumination

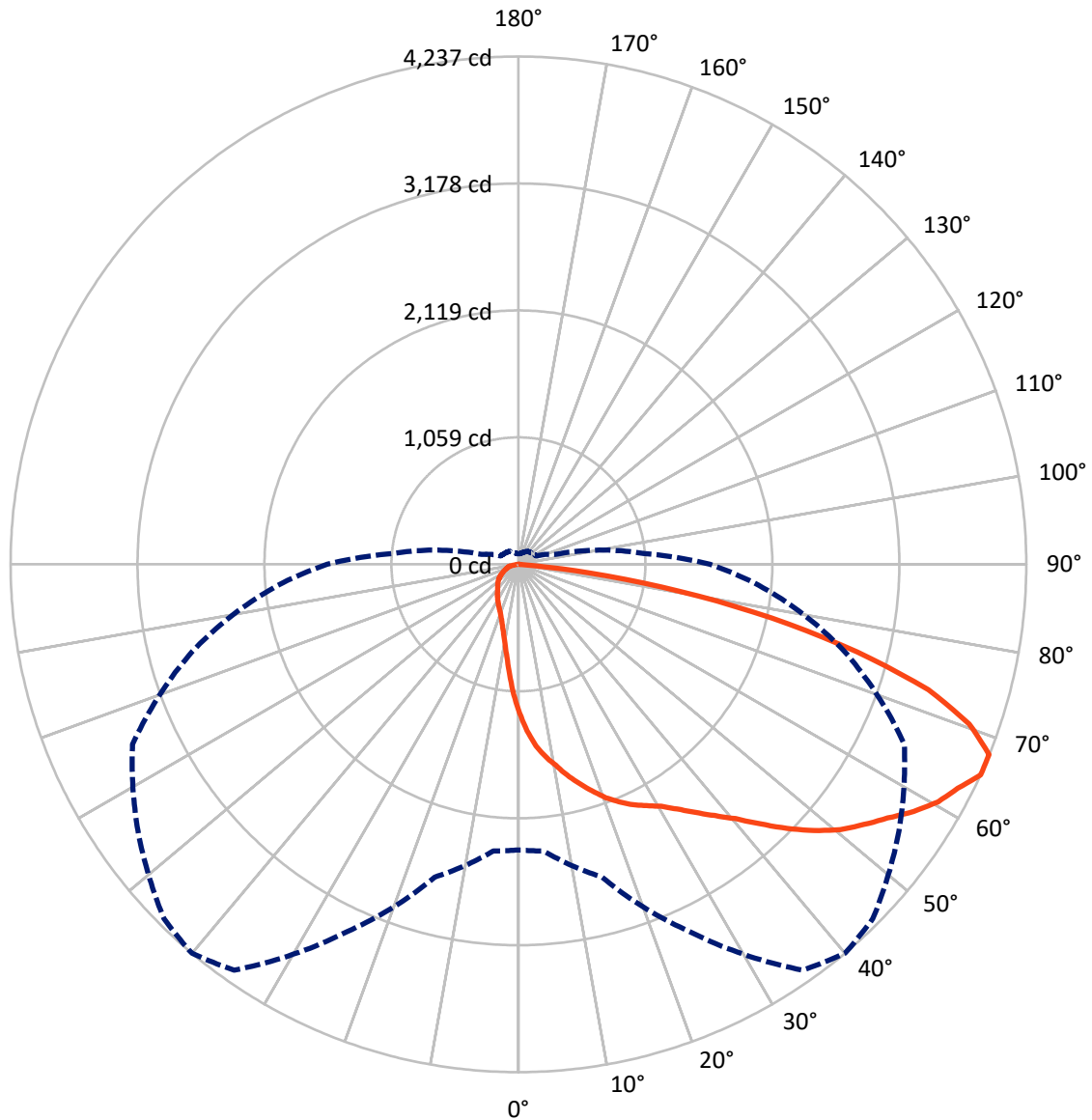
✕ Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 4.5 fc  
 Type IV - Short - N/A

REPORT NUMBER: P869043  
CATALOG NUMBER: EMM2-HSN-SA2B-722-U-T4W-HSS

### Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral      - - - Horizontal Cone Through 65-Deg Vertical

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 CATALOG NUMBER: EMM2-HSN-SA2B-722-U-T4W-HSS

**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	935.5	0.0	935.5
	% Fixture	12.0	0.0	12.0
<b>Street Side</b>	Lumens	6878.4	0.0	6878.4
	% Fixture	88.0	0.0	88.0
<b>Total</b>	Lumens	7813.9	0.0	7813.9
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	116.3	1.5
10°-20°	349.6	4.5
20°-30°	601.4	7.7
30°-40°	909.1	11.6
40°-50°	1329.3	17.0
50°-60°	1697.8	21.7
60°-70°	1694.4	21.7
70°-80°	993.6	12.7
80°-90°	122.4	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°	7813.9	100.0
0°-180°	7813.9	100.0



REPORT NUMBER: P869043

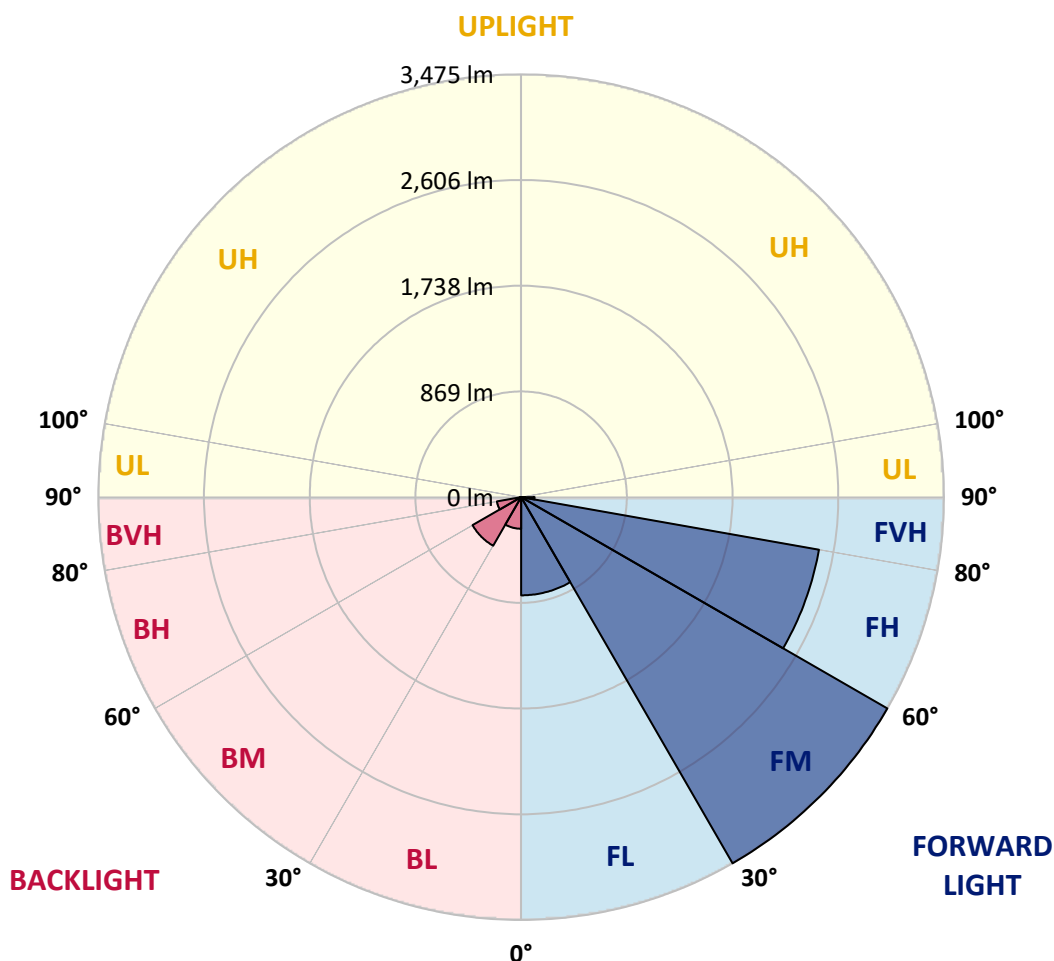
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	807.1	10.3			
FM (30°-60°)	3475.3	44.5			
FH (60°-80°)	2485.5	31.8			G2/5000
FVH (80°-90°)	110.6	1.4			G2/225
BL (0°-30°)	260.2	3.3	B1/500		
BM (30°-60°)	461.0	5.9	B1/1000		
BH (60°-80°)	202.5	2.6	B1/500		G1/500
BVH (80°-90°)	11.8	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 IV Short





REPORT NUMBER: P869043

CATALOG NUMBER: EMM2-HSN-SA2B-722-U-T4W-HSS

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	1242.1	1242.1	1242.1	1242.1	1242.1	1242.1	1242.1	1242.1	1242.1	1242.1	1242.1
2.5°	1449.1	1442.5	1429.3	1418.3	1402.9	1389.6	1376.4	1352.2	1321.4	1294.9	1261.9
5°	1592.2	1581.2	1572.4	1559.2	1532.8	1521.8	1513.0	1462.3	1409.5	1354.4	1281.7
7.5°	1693.6	1702.4	1684.7	1664.9	1631.9	1618.7	1605.5	1554.8	1488.7	1409.5	1305.9
10°	1810.3	1812.5	1790.5	1766.2	1731.0	1704.6	1686.9	1625.3	1552.6	1464.5	1332.4
12.5°	1922.6	1922.6	1909.4	1874.1	1827.9	1803.7	1772.8	1702.4	1614.3	1510.8	1363.2
15°	2012.9	2017.3	2006.3	1979.8	1929.2	1896.2	1865.3	1783.8	1671.5	1563.6	1387.4
17.5°	2094.4	2092.2	2085.6	2061.3	2012.9	1986.5	1955.6	1865.3	1737.6	1605.5	1424.9
20°	2149.4	2149.4	2147.2	2134.0	2098.8	2078.9	2041.5	1946.8	1810.3	1667.1	1464.5
22.5°	2191.3	2189.1	2189.1	2191.3	2171.4	2151.6	2136.2	2041.5	1885.1	1720.0	1504.2
25°	2226.5	2224.3	2230.9	2235.3	2226.5	2222.1	2204.5	2131.8	1977.6	1781.6	1543.8
27.5°	2272.7	2279.4	2277.2	2277.2	2275.0	2279.4	2277.2	2215.5	2067.9	1847.7	1585.6
30°	2345.4	2356.4	2349.8	2341.0	2341.0	2343.2	2354.2	2314.6	2173.6	1929.2	1631.9
32.5°	2515.0	2504.0	2457.7	2426.9	2431.3	2433.5	2444.5	2422.5	2279.4	2021.7	1680.3
35°	2708.8	2695.6	2644.9	2574.5	2550.2	2541.4	2539.2	2526.0	2393.9	2120.8	1737.6
37.5°	2959.9	2964.3	2889.4	2788.1	2715.4	2660.3	2649.3	2620.7	2493.0	2211.1	1797.1
40°	3215.3	3197.7	3133.8	3034.7	2891.6	2790.3	2757.3	2717.6	2605.3	2305.8	1854.3
42.5°	3462.0	3428.9	3345.3	3237.3	3070.0	2959.9	2885.0	2834.3	2708.8	2409.3	1909.4
45°	3783.5	3688.8	3539.1	3442.2	3232.9	3142.6	3074.4	2962.1	2832.1	2512.8	1975.4
47.5°	4036.8	3854.0	3717.4	3675.6	3402.5	3318.8	3257.2	3100.8	2957.7	2629.5	2043.7
50°	3990.5	3878.2	3845.2	3807.7	3530.2	3479.6	3422.3	3259.4	3085.4	2752.8	2109.8
52.5°	3871.6	3884.8	3926.7	3862.8	3642.6	3607.3	3569.9	3428.9	3213.1	2854.2	2169.2
55°	3776.9	3803.3	3915.6	3895.8	3776.9	3737.3	3710.8	3596.3	3336.4	2946.6	2219.9
57.5°	3605.1	3583.1	3724.0	3953.1	3920.1	3889.2	3862.8	3772.5	3462.0	3012.7	2252.9
60°	3334.2	3252.8	3442.2	3882.6	4019.2	4023.6	4008.1	3904.6	3563.3	3012.7	2235.3
62.5°	2953.3	2876.2	3109.6	3647.0	4072.0	4113.9	4105.0	3950.9	3607.3	2946.6	2167.0
65°	2382.9	2400.5	2702.2	3380.5	4133.7	4237.2	4182.1	3876.0	3552.3	2818.9	2012.9
67.5°	1902.8	1955.6	2226.5	3034.7	4105.0	4235.0	4157.9	3664.6	3316.6	2640.5	1777.2
70°	1502.0	1537.2	1761.8	2567.9	3854.0	3990.5	3893.6	3340.9	2918.0	2365.2	1477.7
72.5°	1173.8	1206.8	1398.4	2054.7	3417.9	3576.5	3455.4	2904.8	2420.3	2006.3	1173.8
75°	891.9	916.1	1059.3	1583.4	2722.0	2920.2	2832.1	2325.6	1889.6	1587.8	898.5
77.5°	574.8	607.8	768.6	1109.9	1922.6	2160.4	2171.4	1737.6	1358.8	1147.4	660.7
80°	381.0	394.2	493.3	722.3	1182.6	1367.6	1431.5	1173.8	867.7	731.2	475.7
82.5°	158.6	176.2	235.6	363.4	592.4	594.6	680.5	495.5	352.4	310.5	200.4
85°	4.4	8.8	6.6	17.6	15.4	24.2	28.6	39.6	28.6	30.8	30.8
87.5°	0.0	0.0	2.2	2.2	4.4	4.4	4.4	4.4	4.4	6.6	4.4
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: P869043

CATALOG NUMBER: EMM2-HSN-SA2B-722-U-T4W-HSS

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1242.1	1242.1	1242.1	1242.1	1242.1	1242.1	1242.1	1242.1	1242.1	1242.1	1242.1
2.5°	1246.5	1226.7	1187.0	1156.2	1123.2	1098.9	1076.9	1052.7	1037.3	1039.5	1024.1
5°	1246.5	1209.0	1129.8	1059.3	995.4	949.2	898.5	858.9	830.3	825.9	839.1
7.5°	1253.1	1191.4	1072.5	966.8	878.7	806.0	753.2	713.5	693.7	680.5	678.3
10°	1259.7	1178.2	1019.7	885.3	775.2	695.9	649.7	605.6	583.6	581.4	574.8
12.5°	1264.1	1162.8	971.2	803.8	689.3	614.4	568.2	533.0	515.3	515.3	513.1
15°	1279.5	1158.4	920.6	742.2	623.2	550.6	510.9	482.3	471.3	464.7	462.5
17.5°	1292.7	1149.6	876.5	680.5	563.8	499.9	462.5	442.7	431.6	427.2	425.0
20°	1312.6	1145.2	834.7	629.9	519.7	458.1	429.4	411.8	405.2	400.8	400.8
22.5°	1332.4	1140.8	792.8	585.8	482.3	427.2	400.8	385.4	378.8	376.6	374.4
25°	1356.6	1138.6	757.6	548.4	449.3	403.0	378.8	365.6	356.8	352.4	352.4
27.5°	1380.8	1140.8	722.3	510.9	420.6	381.0	356.8	341.4	334.7	325.9	328.1
30°	1413.9	1143.0	693.7	480.1	396.4	359.0	336.9	317.1	308.3	303.9	303.9
32.5°	1446.9	1151.8	665.1	451.5	372.2	341.4	314.9	297.3	286.3	284.1	281.9
35°	1482.1	1158.4	638.7	427.2	352.4	321.5	295.1	277.5	268.7	266.5	266.5
37.5°	1521.8	1169.4	618.8	405.2	332.5	301.7	277.5	259.9	253.3	251.1	251.1
40°	1563.6	1187.0	603.4	385.4	317.1	284.1	262.1	246.7	242.3	240.0	240.0
42.5°	1605.5	1202.4	590.2	370.0	301.7	268.7	251.1	235.6	229.0	229.0	229.0
45°	1645.1	1213.5	577.0	354.6	286.3	257.7	237.8	224.6	218.0	218.0	218.0
47.5°	1680.3	1224.5	557.2	339.2	270.9	242.3	226.8	213.6	207.0	207.0	207.0
50°	1717.8	1231.1	535.2	319.3	255.5	231.2	215.8	200.4	196.0	193.8	193.8
52.5°	1748.6	1231.1	506.5	299.5	237.8	215.8	202.6	189.4	182.8	178.4	178.4
55°	1770.6	1231.1	475.7	275.3	220.2	202.6	189.4	176.2	167.4	160.8	160.8
57.5°	1783.8	1224.5	440.5	246.7	202.6	185.0	176.2	160.8	143.1	129.9	125.5
60°	1772.8	1204.6	403.0	215.8	182.8	169.6	163.0	143.1	118.9	112.3	112.3
62.5°	1726.6	1158.4	365.6	189.4	167.4	154.2	147.6	125.5	107.9	101.3	101.3
65°	1596.7	1046.1	319.3	165.2	149.8	140.9	132.1	112.3	96.9	88.1	88.1
67.5°	1407.3	902.9	266.5	145.4	134.3	127.7	121.1	101.3	85.9	77.1	77.1
70°	1140.8	729.0	226.8	127.7	118.9	114.5	107.9	92.5	74.9	68.3	68.3
72.5°	896.3	572.6	189.4	114.5	110.1	101.3	96.9	81.5	68.3	61.7	61.7
75°	667.3	427.2	167.4	101.3	101.3	90.3	88.1	72.7	59.5	55.1	55.1
77.5°	491.1	317.1	145.4	88.1	88.1	79.3	74.9	63.9	55.1	50.7	50.7
80°	332.5	215.8	107.9	66.1	66.1	63.9	59.5	55.1	46.2	41.8	39.6
82.5°	140.9	90.3	52.9	33.0	30.8	24.2	19.8	15.4	15.4	13.2	13.2
85°	24.2	11.0	11.0	8.8	6.6	6.6	6.6	4.4	4.4	4.4	4.4
87.5°	4.4	4.4	4.4	4.4	4.4	4.4	2.2	2.2	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

REPORT NUMBER: SP1-2407-157-2

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: SP1-2407-157-2

**CIE 1931 Chromaticity Diagram**



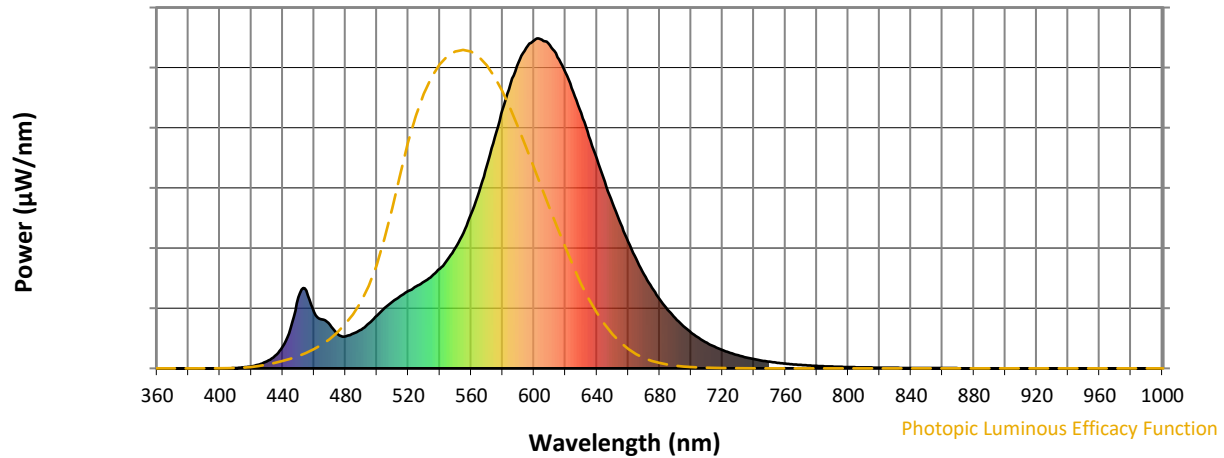
**CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles**



Point lies inside the ANSI 2200K 4-step quadrangle

REPORT NUMBER: SP1-2407-157-2

**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			

REPORT NUMBER: SP1-2407-157-2

**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			

REPORT NUMBER: SP1-2407-157-2

Melanopic Flux vs. Wavelength



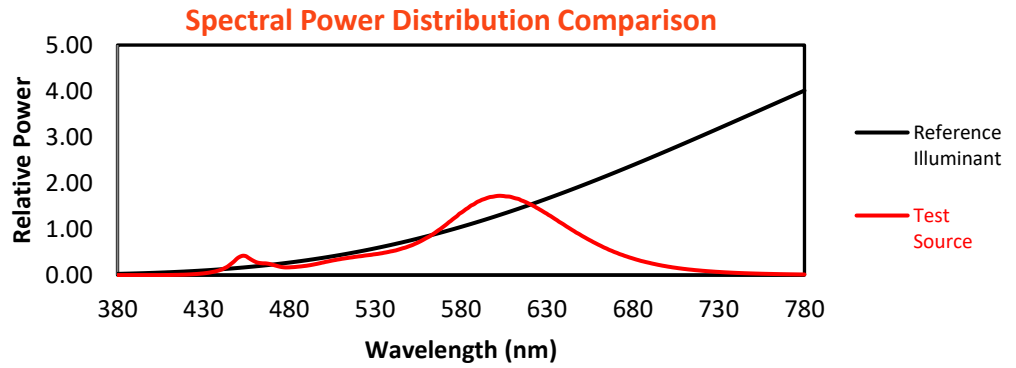
Melanopic Lumens: NR

M/P: 1.71

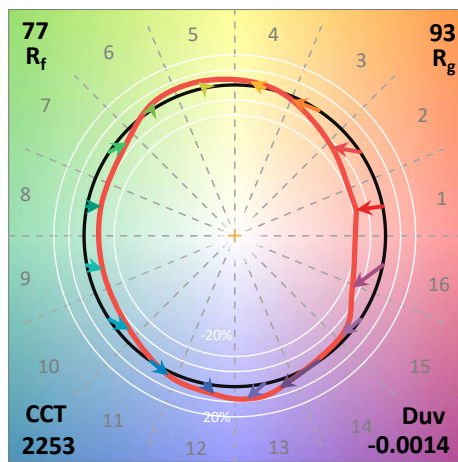
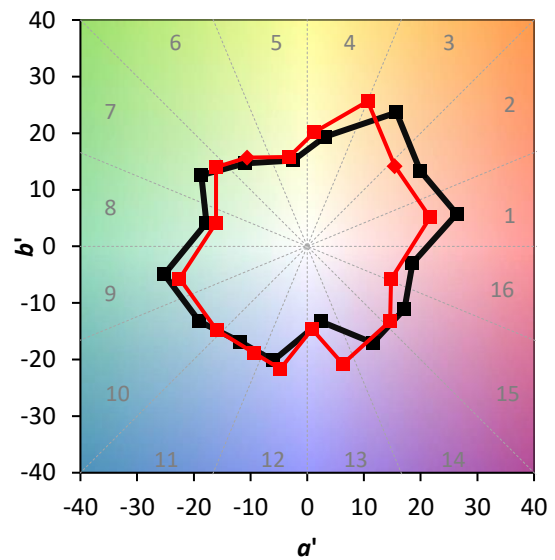
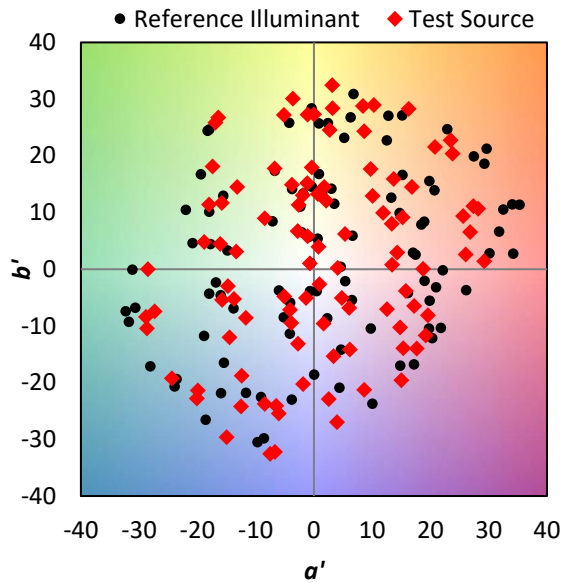
λ (nm)	Power W <sup>2</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>2</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>2</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>2</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>2</sup> /nm	Lumens (φ/nm)
360	0	NR	490	117	NR	620	896	NR	750	20	NR	880	0	NR
365	0	NR	495	137	NR	625	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)