

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: P868761

Luminaire Tested: **EMM2-HSN-SA1B-722-U-T1**

Issue Date: 08/22/2024



**Test Information**

Test Method: LM-79-08  
Report Number: P868761  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 08/22/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: EMM2-HSN-SA1B-722-U-T1  
Description: EPIC MODERN SHORT HOUSING DISCRETE LED ARRAYS 60W 70CRI 2200K  
FITXURE w/ TYPE 1 DISTRIBUTION OPTIC  
Light Source: (10) 2200K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

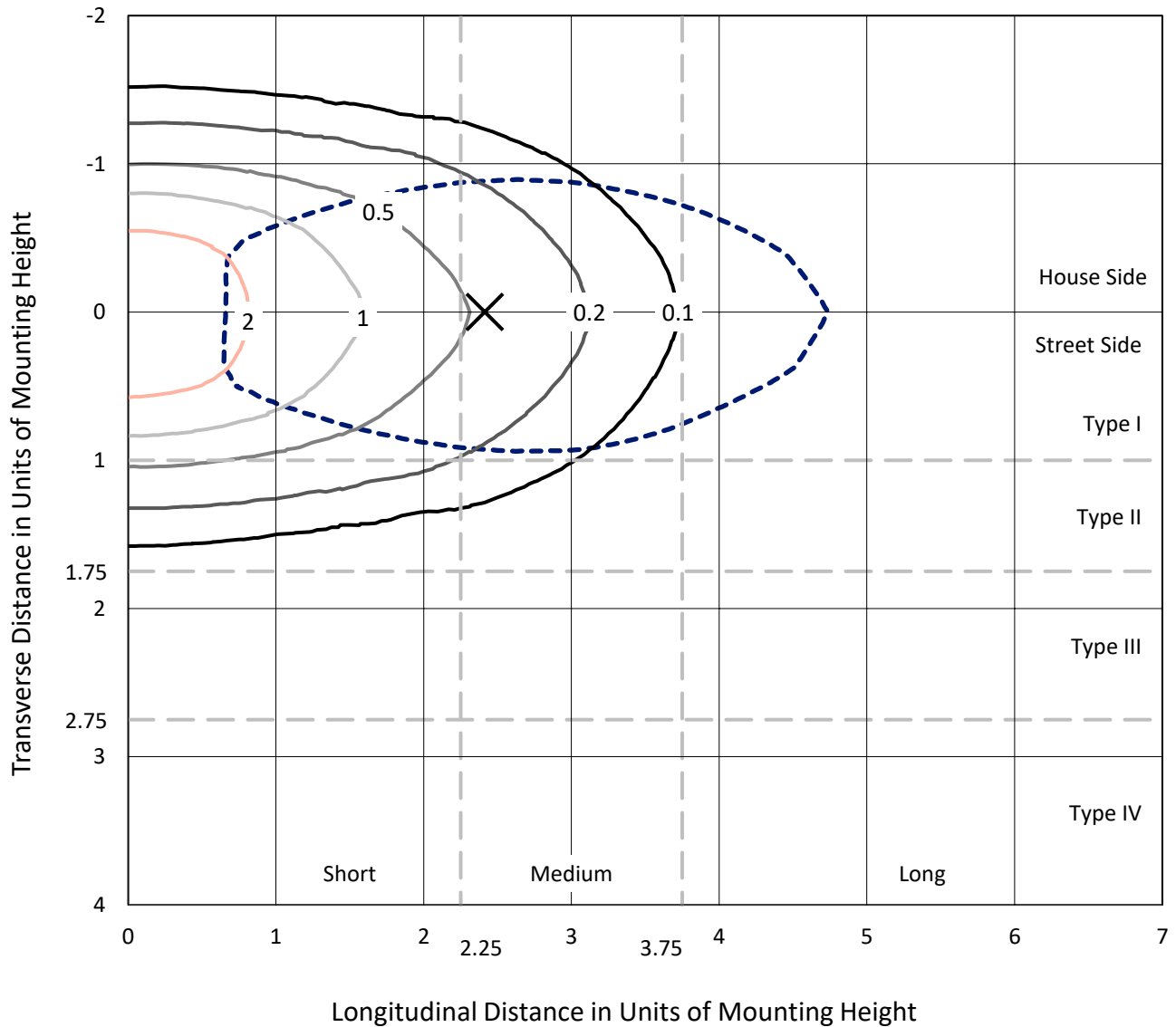
Lumens per Lamp: N/A  
Luminaire Lumens: 5587.7 lumens  
Efficiency: N/A  
Efficacy: 127.0 lumens/watt  
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')  
IES Classification: Type I - Short  
BUG Rating: B2 - U0 - G2

Input Watts (W): 44  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: 0.99  
Total Harmonic Distortion (THDi): 6.91%  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT

REPORT NUMBER: P868761  
 CATALOG NUMBER: EMM2-HSN-SA1B-722-U-T1

### Iso-Footcandle Lines of Horizontal Illumination

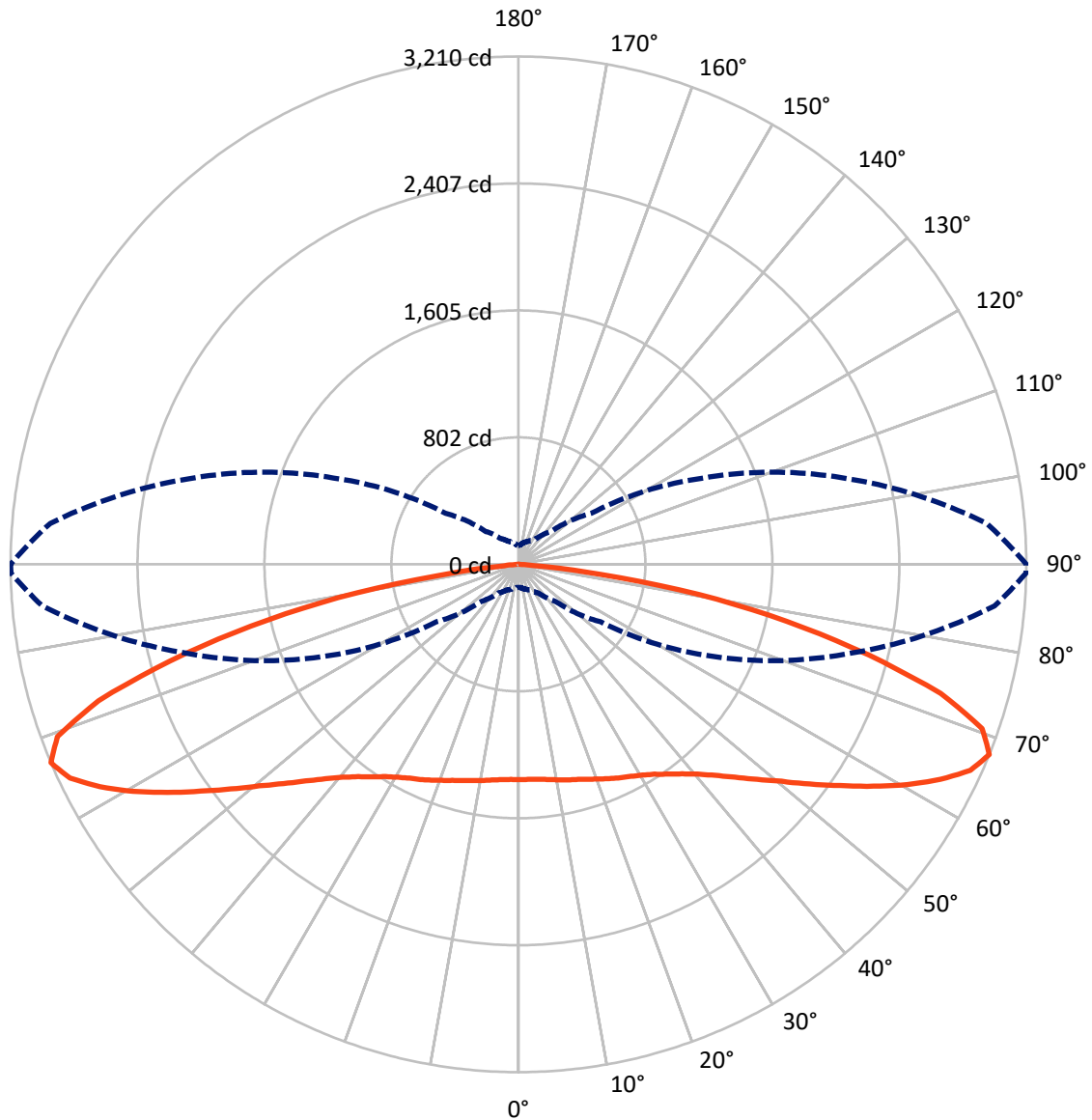
× Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 3.4 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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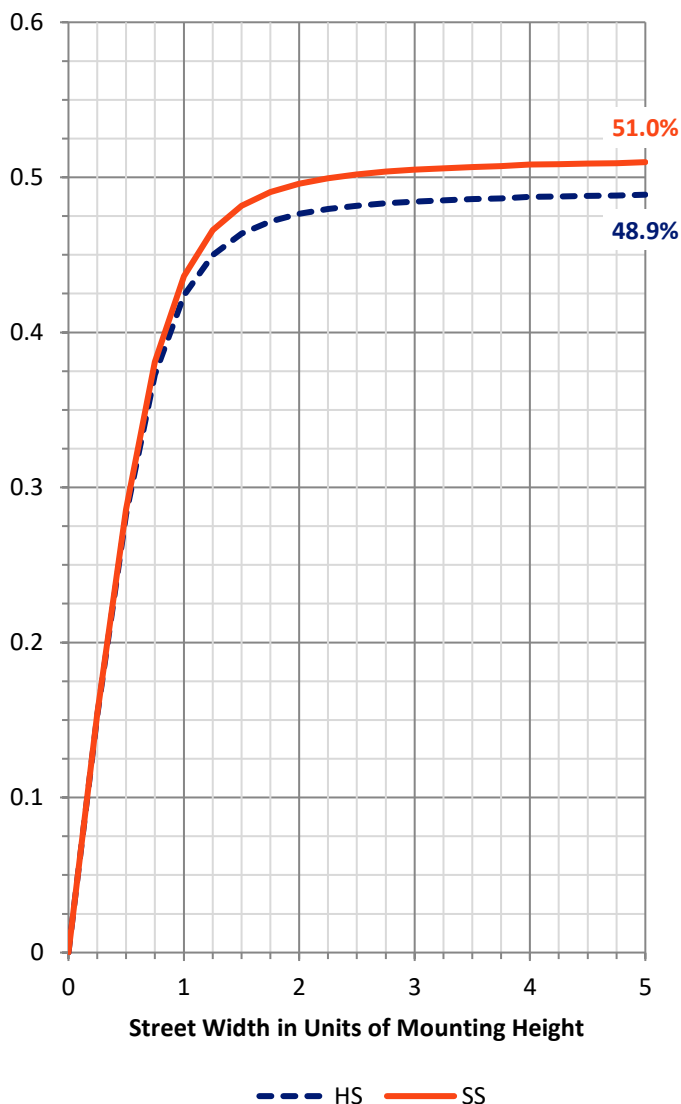
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2744.2	0.0	2744.2
	% Fixture	49.1	0.0	49.1
<b>Street Side</b>	Lumens	2843.4	0.0	2843.4
	% Fixture	50.9	0.0	50.9
<b>Total</b>	Lumens	5587.7	0.0	5587.7
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	130.5	2.3
10°-20°	392.1	7.0
20°-30°	648.9	11.6
30°-40°	860.4	15.4
40°-50°	970.1	17.4
50°-60°	994.5	17.8
60°-70°	939.3	16.8
70°-80°	576.4	10.3
80°-90°	75.4	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°	5587.7	100.0
0°-180°	5587.7	100.0

**Coefficient of Utilization**



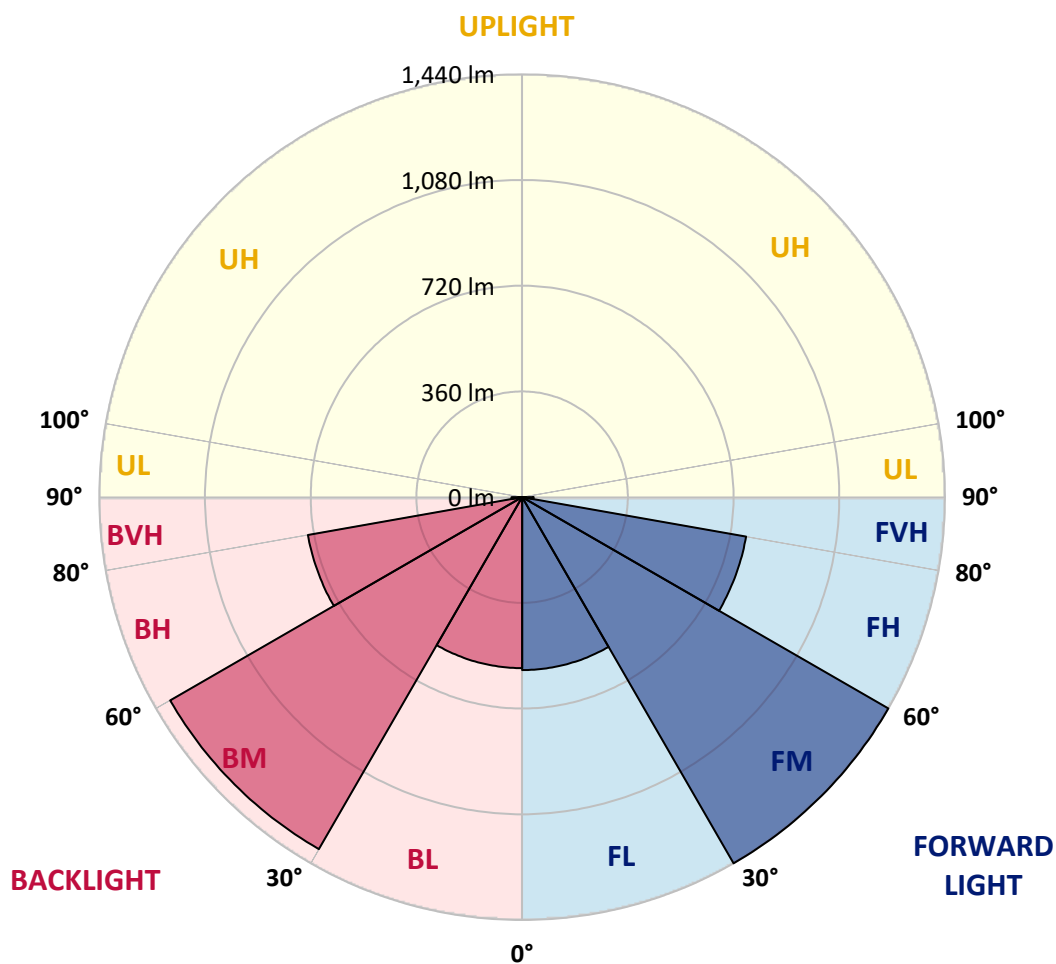
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	589.1	10.5			
FM (30°-60°)	1440.4	25.8			
FH (60°-80°)	774.6	13.9			G1/1800
FVH (80°-90°)	39.3	0.7			G1/100
BL (0°-30°)	582.4	10.4	B2/1000		
BM (30°-60°)	1384.7	24.8	B2/2500		
BH (60°-80°)	741.1	13.3	B2/1000		G2/1000
BVH (80°-90°)	36.1	0.6			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G2**

Type I Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	89°
0°	1361.4	1361.4	1361.4	1361.4	1361.4	1361.4	1361.4	1361.4	1361.4	1361.4	1361.4
2.5°	1366.8	1366.8	1363.6	1358.2	1357.1	1358.2	1364.6	1361.4	1361.4	1362.5	1361.4
5°	1366.8	1366.8	1364.6	1359.3	1359.3	1359.3	1366.8	1363.6	1364.6	1365.7	1365.7
7.5°	1368.9	1368.9	1366.8	1362.5	1362.5	1362.5	1373.2	1371.1	1371.1	1374.3	1372.2
10°	1374.3	1372.2	1370.0	1371.1	1367.9	1373.2	1378.6	1379.7	1384.0	1386.1	1385.0
12.5°	1374.3	1372.2	1366.8	1373.2	1373.2	1380.7	1388.2	1392.5	1397.9	1397.9	1397.9
15°	1367.9	1365.7	1361.4	1372.2	1376.4	1386.1	1396.8	1403.3	1412.9	1412.9	1411.8
17.5°	1360.3	1357.1	1355.0	1371.1	1380.7	1393.6	1409.7	1418.3	1429.0	1430.1	1427.9
20°	1346.4	1345.3	1346.4	1367.9	1385.0	1403.3	1422.6	1434.4	1448.3	1452.6	1449.4
22.5°	1331.4	1331.4	1335.7	1364.6	1391.5	1416.1	1441.9	1456.9	1470.9	1475.1	1470.9
25°	1311.0	1311.0	1319.6	1353.9	1393.6	1430.1	1460.1	1480.5	1493.4	1497.7	1495.5
27.5°	1279.9	1279.9	1289.5	1332.5	1387.2	1440.8	1479.4	1503.0	1517.0	1521.3	1519.1
30°	1235.9	1233.8	1246.6	1300.3	1375.4	1452.6	1502.0	1526.6	1544.9	1548.1	1544.9
32.5°	1166.2	1169.4	1188.7	1256.3	1356.1	1460.1	1528.8	1557.8	1578.1	1584.6	1582.4
35°	1081.4	1086.8	1113.6	1200.5	1319.6	1459.0	1556.7	1592.1	1618.9	1627.5	1626.4
37.5°	980.6	988.1	1021.3	1123.3	1264.9	1443.0	1582.4	1630.7	1666.1	1676.8	1679.0
40°	870.1	877.6	920.5	1033.1	1190.8	1405.4	1597.4	1674.7	1721.9	1743.3	1746.6
42.5°	753.1	766.0	817.5	926.9	1101.8	1345.3	1597.4	1717.6	1775.5	1815.2	1818.4
45°	640.5	651.2	713.4	820.7	1006.3	1268.1	1579.2	1760.5	1848.5	1917.1	1915.0
47.5°	542.9	546.1	602.9	711.3	900.1	1180.1	1541.7	1799.1	1925.7	2016.9	2036.2
50°	442.0	449.5	497.8	605.1	791.7	1083.6	1478.4	1823.8	2005.1	2143.5	2168.2
52.5°	371.2	372.3	408.7	507.4	679.1	966.6	1402.2	1830.2	2081.3	2280.8	2310.9
55°	302.5	307.9	339.0	413.0	570.7	851.8	1303.5	1820.6	2151.0	2413.9	2469.7
57.5°	259.6	260.7	283.2	342.2	481.7	729.5	1194.1	1788.4	2209.0	2560.8	2631.7
60°	223.1	223.1	240.3	285.4	389.4	610.4	1065.3	1731.5	2241.1	2718.6	2821.5
62.5°	194.2	195.3	210.3	243.5	324.0	504.2	923.7	1642.5	2252.9	2870.9	2988.9
65°	175.9	177.0	185.6	208.1	267.1	409.8	778.9	1534.1	2236.9	2984.6	3138.0
67.5°	145.9	147.0	162.0	179.2	222.1	329.4	633.0	1384.0	2171.4	3020.0	3207.8
70°	111.6	114.8	135.2	153.4	184.5	262.8	486.0	1185.5	2014.8	2899.9	3093.0
72.5°	93.3	94.4	109.4	129.8	154.5	206.0	369.1	933.4	1776.6	2589.8	2804.4
75°	81.5	82.6	91.2	109.4	128.7	165.2	256.4	644.8	1417.2	2094.2	2290.5
77.5°	74.0	75.1	77.2	92.3	108.4	127.7	181.3	383.0	999.9	1600.7	1703.7
80°	70.8	70.8	65.4	76.2	89.0	99.8	121.2	219.9	641.6	1079.3	1161.9
82.5°	50.4	49.4	45.1	47.2	54.7	54.7	62.2	91.2	245.7	456.0	494.6
85°	3.2	3.2	5.4	6.4	9.7	12.9	16.1	21.5	62.2	84.8	88.0
87.5°	1.1	1.1	1.1	1.1	1.1	2.1	2.1	2.1	3.2	4.3	4.3
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°	1361.4	1361.4	1361.4	1361.4	1361.4	1361.4	1361.4	1361.4	1361.4	1361.4	1361.4
2.5°	1360.3	1361.4	1361.4	1363.6	1365.7	1364.6	1363.6	1365.7	1362.5	1356.1	1355.0
5°	1364.6	1364.6	1363.6	1365.7	1367.9	1365.7	1363.6	1363.6	1361.4	1355.0	1353.9
7.5°	1373.2	1372.2	1372.2	1372.2	1372.2	1368.9	1365.7	1363.6	1360.3	1353.9	1350.7
10°	1385.0	1384.0	1382.9	1381.8	1376.4	1373.2	1367.9	1364.6	1360.3	1352.8	1350.7
12.5°	1397.9	1395.8	1393.6	1394.7	1384.0	1374.3	1368.9	1361.4	1358.2	1341.0	1337.8
15°	1410.8	1407.6	1406.5	1402.2	1391.5	1377.5	1366.8	1356.1	1345.3	1329.2	1323.9
17.5°	1427.9	1425.8	1419.4	1415.1	1400.0	1380.7	1364.6	1349.6	1335.7	1316.4	1313.1
20°	1448.3	1446.2	1439.7	1431.2	1411.8	1388.2	1365.7	1342.1	1324.9	1302.4	1297.1
22.5°	1470.9	1467.6	1462.3	1452.6	1427.9	1400.0	1368.9	1337.8	1312.1	1286.3	1283.1
25°	1494.5	1492.3	1486.9	1473.0	1446.2	1411.8	1368.9	1322.8	1290.6	1268.1	1258.4
27.5°	1517.0	1515.9	1509.5	1493.4	1465.5	1420.4	1359.3	1298.1	1255.2	1225.2	1218.7
30°	1545.9	1543.8	1536.3	1518.1	1486.9	1425.8	1340.0	1256.3	1202.6	1169.4	1159.7
32.5°	1581.4	1579.2	1568.5	1545.9	1512.7	1426.9	1312.1	1202.6	1131.8	1096.4	1084.6
35°	1628.6	1624.3	1610.3	1583.5	1537.4	1416.1	1262.7	1134.0	1047.1	1001.0	984.9
37.5°	1680.1	1674.7	1656.5	1623.2	1554.5	1387.2	1193.0	1041.7	943.0	888.3	876.5
40°	1743.3	1735.8	1707.9	1661.8	1561.0	1336.7	1114.7	947.3	842.2	782.1	768.1
42.5°	1822.7	1809.9	1764.8	1704.7	1548.1	1268.1	1021.3	849.7	729.5	673.7	670.5
45°	1918.2	1897.8	1830.2	1746.6	1520.2	1182.3	922.6	740.3	625.5	570.7	556.8
47.5°	2030.9	2006.2	1906.4	1778.8	1465.5	1094.3	816.4	634.0	528.9	473.1	462.4
50°	2155.3	2131.7	1986.9	1797.0	1406.5	991.3	712.4	539.6	434.5	388.4	388.4
52.5°	2306.6	2252.9	2064.1	1799.1	1316.4	877.6	612.6	447.4	364.8	324.0	315.4
55°	2467.5	2404.2	2133.9	1779.8	1223.0	773.5	505.3	372.3	299.3	270.4	262.8
57.5°	2646.7	2550.1	2184.3	1741.2	1105.0	659.8	421.6	306.8	252.1	228.5	225.3
60°	2826.9	2702.5	2214.3	1675.8	979.5	554.7	350.8	256.4	216.7	199.5	196.3
62.5°	2994.3	2826.9	2216.5	1580.3	857.2	462.4	287.5	221.0	192.0	179.2	179.2
65°	3139.1	2931.0	2180.0	1458.0	701.6	371.2	237.1	186.7	167.4	153.4	150.2
67.5°	3209.9	2970.7	2115.6	1290.6	562.2	294.0	199.5	162.0	143.8	122.3	120.2
70°	3110.1	2855.9	1950.4	1076.0	434.5	233.9	166.3	138.4	120.2	101.9	99.8
72.5°	2791.5	2550.1	1683.3	833.6	327.2	188.8	138.4	118.0	98.7	89.0	86.9
75°	2284.1	2121.0	1330.3	574.0	228.5	148.1	115.9	99.8	83.7	79.4	78.3
77.5°	1733.7	1577.1	972.0	359.4	156.6	115.9	98.7	84.8	73.0	76.2	74.0
80°	1157.6	1085.7	645.8	203.8	105.1	84.8	75.1	62.2	55.8	64.4	62.2
82.5°	525.7	497.8	303.6	89.0	47.2	36.5	25.7	19.3	15.0	13.9	16.1
85°	88.0	77.2	21.5	9.7	5.4	3.2	2.1	2.1	1.1	1.1	1.1
87.5°	4.3	3.2	3.2	2.1	1.1	1.1	1.1	1.1	1.1	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	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)