

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: P868795

Luminaire Tested: **EMM2-HSN-SA1A-722-U-T2R**

Issue Date: 08/22/2024



**Test Information**

Test Method: LM-79-08  
Report Number: P868795  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 08/22/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: EMM2-HSN-SA1A-722-U-T2R  
Description: EPIC MODERN SHORT HOUSING DISCRETE LED ARRAYS 40W 70CRI 2200K  
FITXURE w/ TYPE II ROADWAY DISTRIBUTION OPTIC  
Light Source: (10) 2200K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

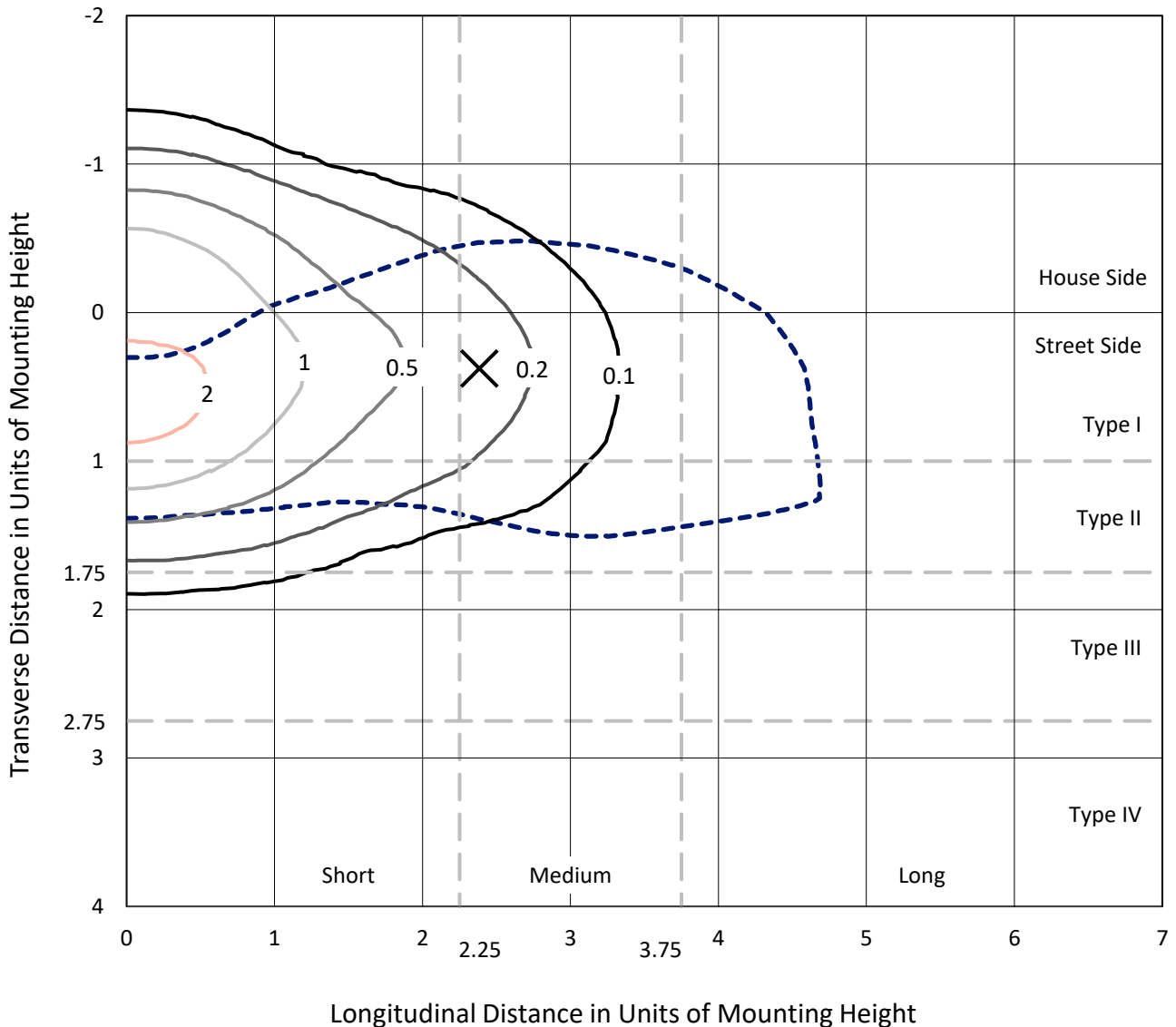
Lumens per Lamp: N/A  
Luminaire Lumens: 4286.9 lumens  
Efficiency: N/A  
Efficacy: 130.7 lumens/watt  
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')  
IES Classification: Type II - Medium  
BUG Rating: B1 - U0 - G1

Input Watts (W): 32.8  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: 0.99  
Total Harmonic Distortion (THDi): 9.76%  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT

REPORT NUMBER: P868795  
 CATALOG NUMBER: EMM2-HSN-SA1A-722-U-T2R

### Iso-Footcandle Lines of Horizontal Illumination

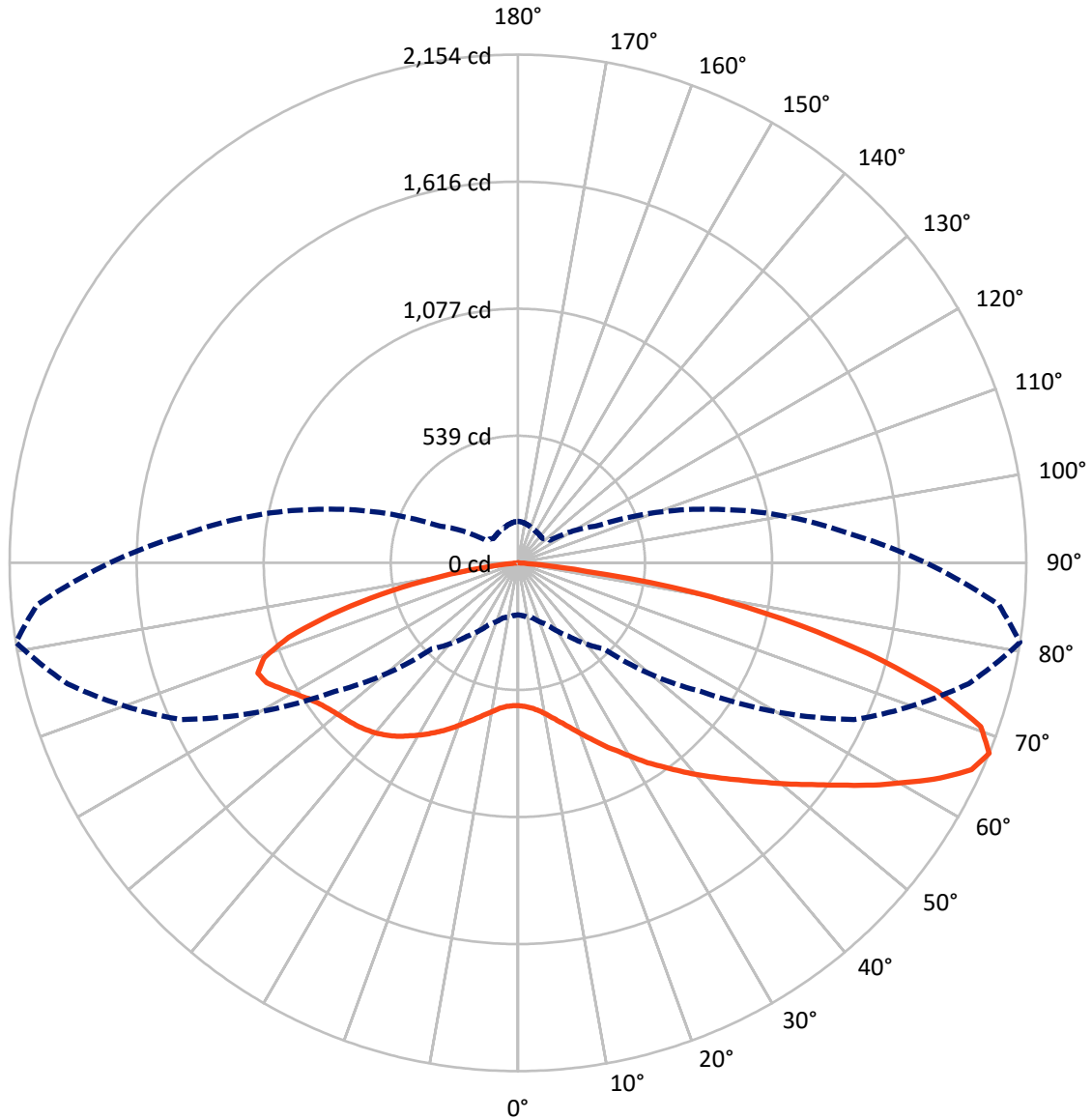
× Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 2.7 fc  
 Type II - Medium - N/A

REPORT NUMBER: P868795  
CATALOG NUMBER: EMM2-HSN-SA1A-722-U-T2R

### Luminous Intensity Polar Plot



— Vertical Plane Through 81-Deg Lateral    - - - Horizontal Cone Through 67.5-Deg Vertical

REPORT NUMBER: P868795  
 CATALOG NUMBER: EMM2-HSN-SA1A-722-U-T2R

**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1313.6	0.0	1313.6
	% Fixture	30.6	0.0	30.6
<b>Street Side</b>	Lumens	2973.3	0.0	2973.3
	% Fixture	69.4	0.0	69.4
<b>Total</b>	Lumens	4286.9	0.0	4286.9
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	61.7	1.4
10°-20°	219.1	5.1
20°-30°	436.3	10.2
30°-40°	685.5	16.0
40°-50°	850.2	19.8
50°-60°	831.1	19.4
60°-70°	698.9	16.3
70°-80°	444.1	10.4
80°-90°	60.0	1.4
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°	4286.9	100.0
0°-180°	4286.9	100.0



REPORT NUMBER: P868795

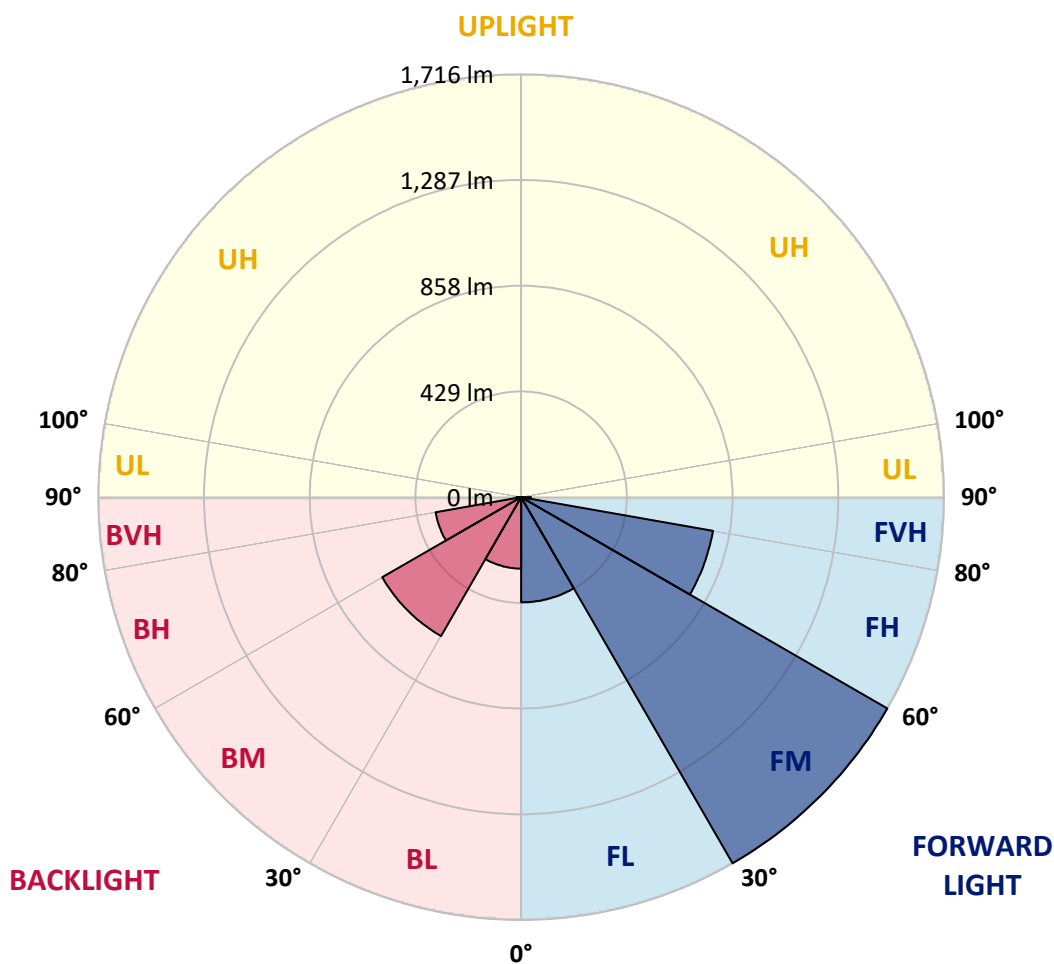
CATALOG NUMBER: EMM2-HSN-SA1A-722-U-T2R

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	427.0	10.0			
FM (30°-60°)	1715.7	40.0			
FH (60°-80°)	790.4	18.4			G1/1800
FVH (80°-90°)	40.2	0.9			G1/100
BL (0°-30°)	290.1	6.8	B1/500		
BM (30°-60°)	651.1	15.2	B1/1000		
BH (60°-80°)	352.6	8.2	B1/500		G1/500
BVH (80°-90°)	19.8	0.5			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G1**

Type II Medium





REPORT NUMBER: P868795

CATALOG NUMBER: EMM2-HSN-SA1A-722-U-T2R

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	81°	85°
0°	605.2	605.2	605.2	605.2	605.2	605.2	605.2	605.2	605.2	605.2	605.2
2.5°	626.5	625.6	625.6	618.8	618.8	617.1	618.0	612.9	610.3	609.5	608.6
5°	671.5	671.5	666.4	662.2	653.7	646.0	639.2	629.0	621.4	618.0	615.4
7.5°	739.5	734.4	732.7	720.0	702.1	686.8	673.2	651.1	636.7	631.6	628.2
10°	822.8	816.0	803.3	788.8	765.9	742.9	715.7	686.0	662.2	652.0	647.7
12.5°	908.7	899.3	881.5	867.9	838.1	803.3	765.0	724.2	691.1	676.6	669.0
15°	1003.0	997.9	976.7	949.5	914.6	865.3	817.7	767.6	725.1	704.7	691.9
17.5°	1105.0	1097.4	1074.4	1041.3	992.0	933.3	878.1	813.5	764.2	737.8	723.4
20°	1205.4	1203.7	1169.6	1138.2	1080.4	1007.3	935.9	867.9	805.8	775.2	756.5
22.5°	1317.6	1306.5	1276.8	1232.6	1163.7	1096.5	1012.4	924.0	850.9	815.2	793.9
25°	1434.0	1433.2	1396.6	1342.2	1261.5	1176.5	1085.5	987.7	904.4	861.1	833.0
27.5°	1578.5	1567.5	1520.7	1458.7	1365.2	1267.4	1162.0	1054.0	955.4	903.6	869.6
30°	1705.2	1701.8	1649.1	1579.4	1474.8	1358.4	1244.5	1128.8	1015.8	954.6	917.2
32.5°	1808.0	1803.8	1758.7	1689.0	1576.8	1456.1	1325.2	1199.4	1076.1	1009.8	960.5
35°	1893.9	1887.1	1840.3	1770.6	1673.7	1551.3	1411.9	1273.4	1142.4	1061.7	1014.9
37.5°	1927.9	1921.9	1883.7	1825.9	1736.6	1624.4	1490.1	1355.0	1208.8	1120.3	1067.6
40°	1915.1	1911.7	1884.5	1844.6	1776.6	1683.1	1564.9	1440.0	1283.6	1182.4	1119.5
42.5°	1854.8	1854.8	1837.8	1817.4	1783.4	1716.2	1631.2	1521.6	1355.8	1244.5	1168.8
45°	1769.8	1766.4	1760.4	1752.8	1747.7	1722.2	1674.6	1592.1	1435.7	1312.5	1228.3
47.5°	1656.7	1659.3	1655.0	1658.4	1679.7	1695.8	1693.3	1657.6	1517.3	1387.3	1287.0
50°	1479.1	1491.0	1504.6	1544.5	1587.9	1632.9	1674.6	1704.3	1613.4	1472.3	1355.0
52.5°	1258.9	1264.0	1300.6	1394.9	1487.6	1547.1	1626.1	1725.6	1698.4	1560.7	1434.9
55°	987.7	997.1	1052.3	1185.8	1350.7	1464.6	1557.3	1716.2	1785.1	1661.8	1528.4
57.5°	708.1	714.0	802.4	940.1	1155.2	1346.5	1479.1	1678.8	1854.8	1776.6	1624.4
60°	503.2	514.3	571.2	705.5	912.1	1183.3	1407.7	1624.4	1919.4	1888.8	1750.2
62.5°	371.5	377.4	417.4	515.1	685.1	960.5	1315.0	1584.5	1961.9	2009.5	1876.0
65°	279.7	282.2	309.4	376.6	512.6	708.1	1168.8	1576.8	1985.7	2112.3	1987.4
67.5°	220.2	224.4	241.4	287.3	381.7	515.1	952.0	1571.7	1977.2	2154.0	2046.0
70°	185.3	186.2	198.9	224.4	285.6	370.6	711.5	1495.2	1929.6	2080.9	1991.6
72.5°	160.7	160.7	166.6	187.0	229.5	280.5	484.5	1312.5	1808.9	1859.0	1802.9
75°	130.1	129.2	139.4	159.0	184.5	215.9	325.6	993.7	1555.6	1530.1	1484.2
77.5°	113.1	112.2	120.7	137.7	152.2	172.6	222.7	645.2	1224.1	1147.5	1118.6
80°	96.9	94.4	101.2	117.3	125.0	134.3	153.9	375.7	799.9	752.3	717.4
82.5°	73.1	67.2	65.5	79.1	84.2	78.2	78.2	131.8	290.7	293.3	271.2
85°	6.0	6.8	8.5	10.2	14.5	16.2	17.0	28.1	43.4	41.7	42.5
87.5°	0.9	0.9	0.9	1.7	1.7	2.6	2.6	2.6	3.4	3.4	3.4
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: P868795

CATALOG NUMBER: EMM2-HSN-SA1A-722-U-T2R

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	605.2	605.2	605.2	605.2	605.2	605.2	605.2	605.2	605.2	605.2	605.2
2.5°	607.8	606.1	604.4	604.4	604.4	602.7	601.8	601.8	601.0	598.4	597.6
5°	613.7	611.2	608.6	608.6	608.6	607.8	606.9	607.8	606.9	604.4	603.5
7.5°	625.6	622.2	618.8	618.8	620.5	619.7	619.7	620.5	619.7	617.1	616.3
10°	642.6	637.5	635.8	635.8	637.5	636.7	635.8	635.8	635.0	630.7	632.4
12.5°	661.3	656.2	654.5	655.4	654.5	652.8	653.7	651.1	650.3	643.5	642.6
15°	685.1	679.2	675.8	676.6	674.1	670.7	667.3	665.6	662.2	656.2	654.5
17.5°	712.3	703.0	698.7	698.7	693.6	686.8	681.7	676.6	671.5	664.7	663.0
20°	738.7	730.2	723.4	721.7	711.5	700.4	691.1	682.6	676.6	669.0	667.3
22.5°	771.8	759.9	750.6	742.9	727.6	709.8	695.3	683.4	674.9	666.4	663.9
25°	806.7	789.7	774.4	759.9	738.7	713.2	692.8	675.8	664.7	655.4	653.7
27.5°	841.5	819.4	797.3	774.4	742.1	708.9	680.0	659.6	645.2	633.3	631.6
30°	878.9	851.7	816.9	783.7	741.2	697.9	661.3	632.4	615.4	601.8	600.1
32.5°	917.2	883.2	835.6	790.5	737.0	681.7	634.1	603.5	582.3	567.0	562.7
35°	959.7	918.0	852.6	793.1	725.1	657.9	605.2	567.0	542.3	527.0	523.6
37.5°	1003.0	950.3	863.6	791.4	708.1	629.9	567.8	528.7	499.8	478.6	475.2
40°	1047.2	980.1	870.4	782.9	684.3	595.0	533.0	485.4	443.7	424.2	414.8
42.5°	1088.0	1007.3	873.8	771.0	657.9	558.5	487.1	425.0	385.9	364.7	368.9
45°	1130.5	1032.8	874.7	756.5	623.1	511.7	429.3	371.5	332.4	316.2	314.5
47.5°	1167.1	1054.0	873.0	736.1	584.0	458.2	368.9	313.7	284.8	269.5	267.8
50°	1215.6	1077.8	870.4	712.3	533.0	397.0	312.8	267.8	241.4	229.5	228.7
52.5°	1264.0	1104.2	868.7	679.2	479.4	339.2	261.8	226.1	208.3	202.3	200.6
55°	1327.8	1136.5	869.6	640.9	418.2	279.7	221.9	197.2	187.9	185.3	185.3
57.5°	1400.9	1178.2	874.7	598.4	354.5	231.2	193.0	181.9	181.1	182.8	183.6
60°	1489.3	1233.4	884.9	554.2	295.8	195.5	176.0	175.1	177.7	183.6	185.3
62.5°	1588.7	1293.8	897.6	496.4	239.7	171.7	166.6	170.0	173.4	180.2	181.1
65°	1676.3	1361.8	905.3	441.2	200.6	158.1	160.7	162.4	170.9	180.2	180.2
67.5°	1729.0	1411.1	876.4	371.5	167.5	146.2	151.3	156.4	165.8	174.3	176.0
70°	1711.1	1394.9	777.8	288.2	142.0	135.2	141.1	148.8	158.1	168.3	173.4
72.5°	1587.0	1280.2	631.6	210.0	123.3	125.0	132.6	142.8	151.3	162.4	169.2
75°	1326.9	1068.5	455.6	151.3	108.0	114.8	126.7	135.2	141.1	143.7	144.5
77.5°	1007.3	785.4	310.3	113.1	93.5	102.9	115.6	125.0	126.7	128.4	130.1
80°	657.9	499.8	175.1	79.1	71.4	84.2	94.4	104.6	101.2	106.3	108.0
82.5°	278.0	218.5	79.9	39.1	33.2	35.7	38.3	34.0	31.5	31.5	27.2
85°	36.6	28.1	11.9	5.1	4.3	2.6	2.6	2.6	1.7	1.7	1.7
87.5°	3.4	3.4	2.6	2.6	1.7	1.7	0.9	1.7	0.9	0.9	0.9
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: 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**

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			

REPORT NUMBER: SP1-2407-157-2

**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)