

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: P868809

Luminaire Tested: **EMM2-HSN-SA1A-730-U-T2R**

Issue Date: 08/22/2024



**Test Information**

Test Method: LM-79-08  
Report Number: P868809  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 08/22/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: EMM2-HSN-SA1A-730-U-T2R  
Description: EPIC MODERN SHORT HOUSING DISCRETE LED ARRAYS 40W 70CRI 3000K  
FITXURE w/ TYPE II ROADWAY DISTRIBUTION OPTIC  
Light Source: (10) 3000K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

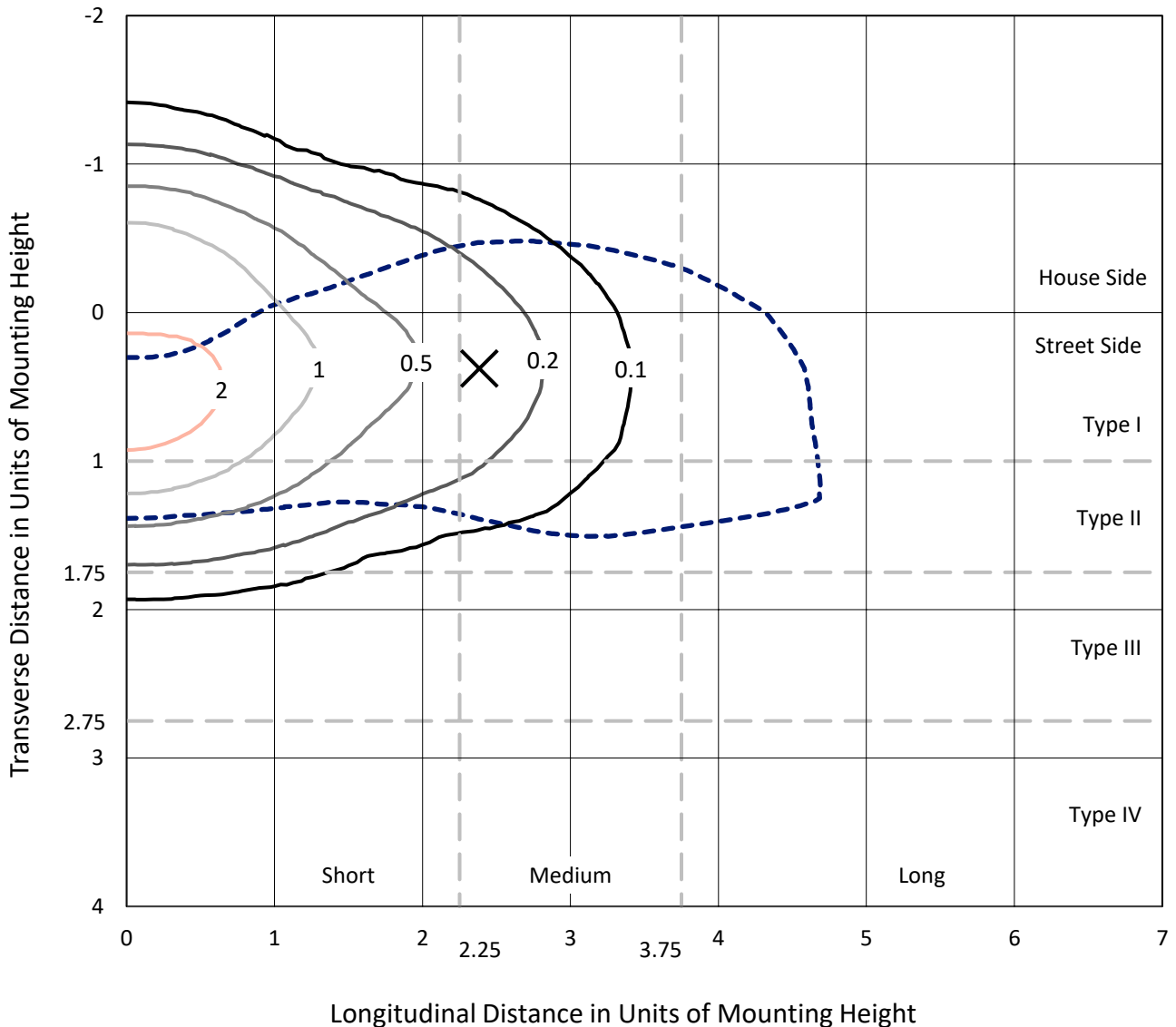
Lumens per Lamp: N/A  
Luminaire Lumens: 4699.4 lumens  
Efficiency: N/A  
Efficacy: 143.3 lumens/watt  
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')  
IES Classification: Type II - Medium  
BUG Rating: B1 - U0 - G1

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: P868809  
 CATALOG NUMBER: EMM2-HSN-SA1A-730-U-T2R

### Iso-Footcandle Lines of Horizontal Illumination

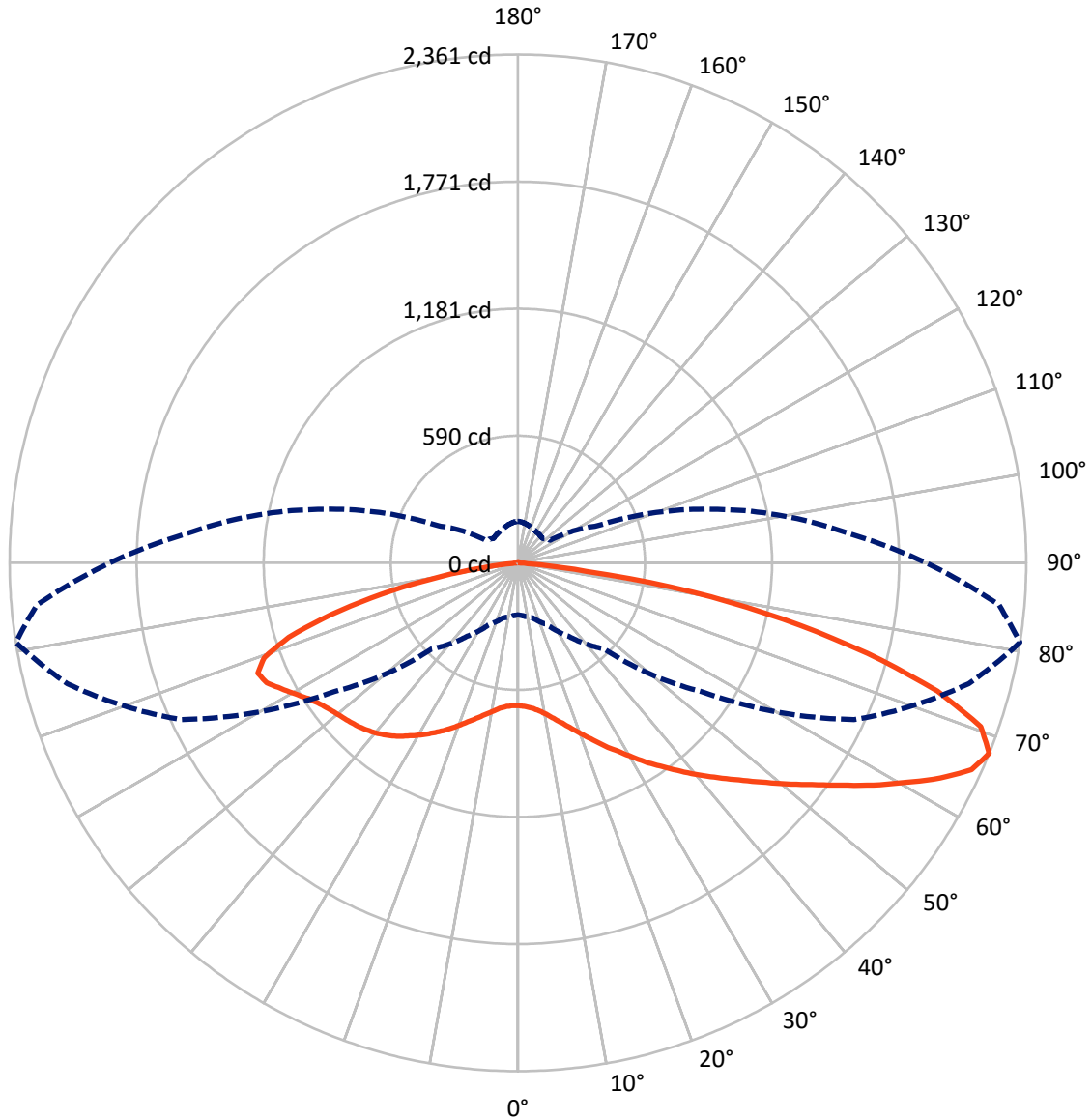
× Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 3 fc  
 Type II - Medium - N/A

REPORT NUMBER: P868809  
CATALOG NUMBER: EMM2-HSN-SA1A-730-U-T2R

### Luminous Intensity Polar Plot



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

REPORT NUMBER: P868809  
 CATALOG NUMBER: EMM2-HSN-SA1A-730-U-T2R

**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1440.0	0.0	1440.0
	% Fixture	30.6	0.0	30.6
<b>Street Side</b>	Lumens	3259.4	0.0	3259.4
	% Fixture	69.4	0.0	69.4
<b>Total</b>	Lumens	4699.4	0.0	4699.4
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	67.7	1.4
10°-20°	240.2	5.1
20°-30°	478.3	10.2
30°-40°	751.5	16.0
40°-50°	932.0	19.8
50°-60°	911.1	19.4
60°-70°	766.2	16.3
70°-80°	486.8	10.4
80°-90°	65.7	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°	4699.4	100.0
0°-180°	4699.4	100.0



REPORT NUMBER: P868809

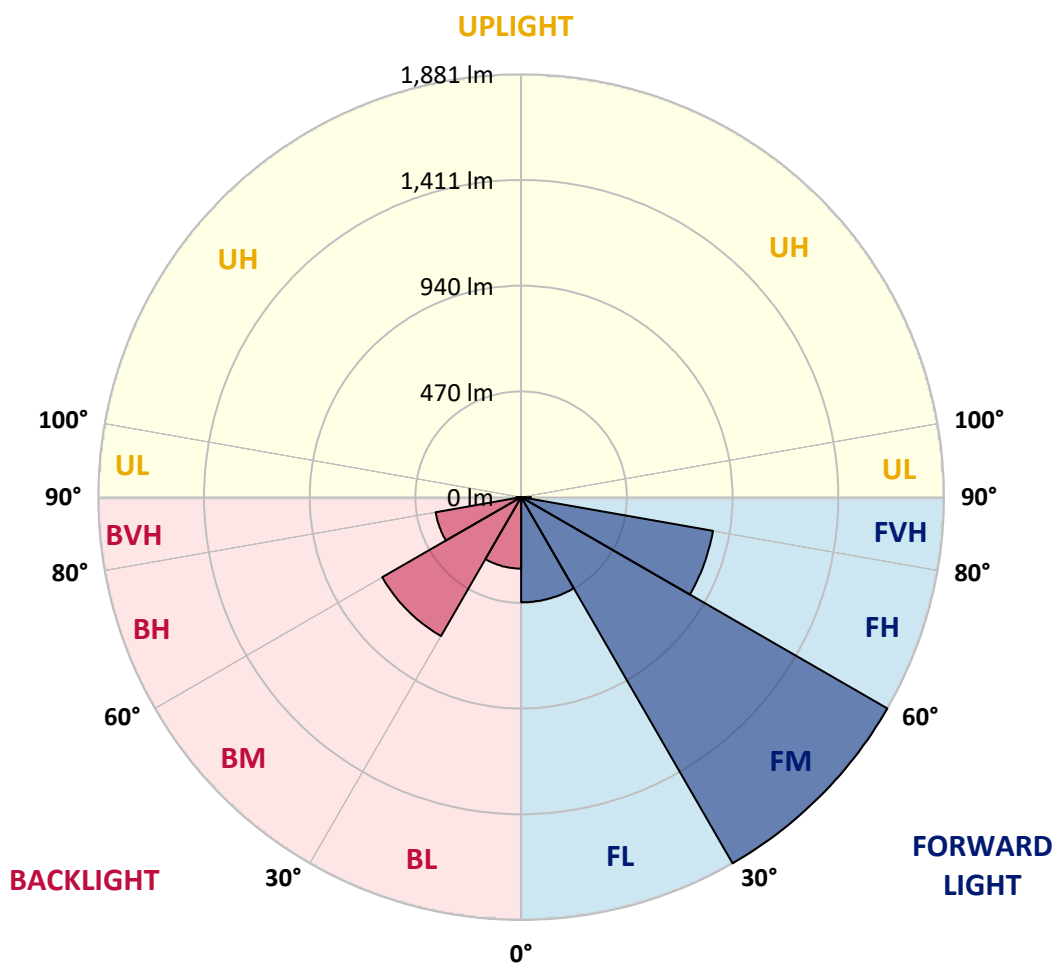
CATALOG NUMBER: EMM2-HSN-SA1A-730-U-T2R

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	468.1	10.0			
FM (30°-60°)	1880.9	40.0			
FH (60°-80°)	866.4	18.4			G1/1800
FVH (80°-90°)	44.0	0.9			G1/100
BL (0°-30°)	318.1	6.8	B1/500		
BM (30°-60°)	713.7	15.2	B1/1000		
BH (60°-80°)	386.6	8.2	B1/500		G1/500
BVH (80°-90°)	21.7	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: P868809

CATALOG NUMBER: EMM2-HSN-SA1A-730-U-T2R

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	81°	85°
0°	663.5	663.5	663.5	663.5	663.5	663.5	663.5	663.5	663.5	663.5	663.5
2.5°	686.8	685.8	685.8	678.4	678.4	676.5	677.5	671.9	669.1	668.1	667.2
5°	736.2	736.2	730.6	725.9	716.6	708.2	700.7	689.6	681.2	677.5	674.7
7.5°	810.7	805.1	803.3	789.3	769.7	752.9	738.0	713.8	698.0	692.4	688.6
10°	902.0	894.6	880.6	864.8	839.6	814.4	784.6	752.0	725.9	714.7	710.1
12.5°	996.1	985.9	966.3	951.4	918.8	880.6	838.7	793.9	757.6	741.8	733.4
15°	1099.6	1094.0	1070.7	1040.9	1002.7	948.6	896.4	841.5	794.9	772.5	758.5
17.5°	1211.4	1203.0	1177.9	1141.5	1087.5	1023.2	962.6	891.8	837.7	808.8	793.0
20°	1321.4	1319.5	1282.2	1247.7	1184.4	1104.2	1026.0	951.4	883.4	849.8	829.3
22.5°	1444.4	1432.3	1399.6	1351.2	1275.7	1202.1	1109.8	1012.9	932.8	893.6	870.3
25°	1572.0	1571.1	1531.0	1471.4	1382.9	1289.7	1190.0	1082.8	991.5	944.0	913.2
27.5°	1730.4	1718.3	1667.1	1599.1	1496.5	1389.4	1273.8	1155.5	1047.4	990.6	953.3
30°	1869.3	1865.6	1807.8	1731.4	1616.8	1489.1	1364.2	1237.5	1113.6	1046.5	1005.5
32.5°	1982.0	1977.4	1928.0	1851.6	1728.6	1596.3	1452.8	1314.8	1179.7	1107.0	1053.0
35°	2076.2	2068.7	2017.5	1941.0	1834.8	1700.6	1547.8	1395.9	1252.4	1163.9	1112.6
37.5°	2113.4	2106.9	2065.0	2001.6	1903.8	1780.8	1633.5	1485.4	1325.1	1228.2	1170.4
40°	2099.5	2095.7	2065.9	2022.1	1947.6	1845.1	1715.5	1578.6	1407.1	1296.2	1227.2
42.5°	2033.3	2033.3	2014.7	1992.3	1955.0	1881.4	1788.2	1668.0	1486.3	1364.2	1281.3
45°	1940.1	1936.4	1929.9	1921.5	1915.9	1887.9	1835.7	1745.4	1573.9	1438.8	1346.5
47.5°	1816.2	1819.0	1814.3	1818.0	1841.3	1859.0	1856.2	1817.1	1663.3	1520.8	1410.8
50°	1621.4	1634.5	1649.4	1693.2	1740.7	1790.1	1835.7	1868.4	1768.6	1614.0	1485.4
52.5°	1380.1	1385.7	1425.7	1529.2	1630.7	1696.0	1782.6	1891.7	1861.8	1710.9	1573.0
55°	1082.8	1093.1	1153.6	1299.9	1480.7	1605.6	1707.1	1881.4	1956.9	1821.8	1675.5
57.5°	776.2	782.8	879.7	1030.6	1266.4	1476.0	1621.4	1840.4	2033.3	1947.6	1780.8
60°	551.7	563.8	626.2	773.4	999.9	1297.1	1543.1	1780.8	2104.1	2070.6	1918.7
62.5°	407.2	413.7	457.5	564.7	751.1	1053.0	1441.6	1737.0	2150.7	2202.9	2056.6
65°	306.6	309.4	339.2	412.8	561.9	776.2	1281.3	1728.6	2176.8	2315.6	2178.7
67.5°	241.3	246.0	264.6	315.0	418.4	564.7	1043.7	1723.0	2167.5	2361.3	2243.0
70°	203.1	204.1	218.1	246.0	313.1	406.3	780.0	1639.1	2115.3	2281.2	2183.3
72.5°	176.1	176.1	182.6	205.0	251.6	307.5	531.2	1438.8	1983.0	2038.0	1976.5
75°	142.6	141.6	152.8	174.3	202.2	236.7	356.9	1089.3	1705.3	1677.3	1627.0
77.5°	123.9	123.0	132.3	151.0	166.8	189.2	244.1	707.3	1341.9	1258.0	1226.3
80°	106.2	103.4	110.9	128.6	137.0	147.2	168.7	411.9	876.9	824.7	786.5
82.5°	80.1	73.6	71.8	86.7	92.3	85.7	85.7	144.4	318.7	321.5	297.3
85°	6.5	7.5	9.3	11.2	15.8	17.7	18.6	30.8	47.5	45.7	46.6
87.5°	0.9	0.9	0.9	1.9	1.9	2.8	2.8	2.8	3.7	3.7	3.7
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: P868809

CATALOG NUMBER: EMM2-HSN-SA1A-730-U-T2R

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	663.5	663.5	663.5	663.5	663.5	663.5	663.5	663.5	663.5	663.5	663.5
2.5°	666.3	664.4	662.5	662.5	662.5	660.7	659.7	659.7	658.8	656.0	655.1
5°	672.8	670.0	667.2	667.2	667.2	666.3	665.3	666.3	665.3	662.5	661.6
7.5°	685.8	682.1	678.4	678.4	680.2	679.3	679.3	680.2	679.3	676.5	675.6
10°	704.5	698.9	697.0	697.0	698.9	698.0	697.0	697.0	696.1	691.4	693.3
12.5°	725.0	719.4	717.5	718.5	717.5	715.7	716.6	713.8	712.9	705.4	704.5
15°	751.1	744.5	740.8	741.8	739.0	735.2	731.5	729.6	725.9	719.4	717.5
17.5°	780.9	770.6	766.0	766.0	760.4	752.9	747.3	741.8	736.2	728.7	726.8
20°	809.8	800.5	793.0	791.1	780.0	767.8	757.6	748.3	741.8	733.4	731.5
22.5°	846.1	833.1	822.8	814.4	797.7	778.1	762.3	749.2	739.9	730.6	727.8
25°	884.3	865.7	848.9	833.1	809.8	781.8	759.5	740.8	728.7	718.5	716.6
27.5°	922.5	898.3	874.1	848.9	813.5	777.2	745.5	723.1	707.3	694.2	692.4
30°	963.5	933.7	895.5	859.2	812.6	765.0	725.0	693.3	674.7	659.7	657.9
32.5°	1005.5	968.2	916.0	866.6	807.9	747.3	695.2	661.6	638.3	621.5	616.9
35°	1052.1	1006.4	934.6	869.4	794.9	721.3	663.5	621.5	594.5	577.7	574.0
37.5°	1099.6	1041.8	946.8	867.6	776.2	690.5	622.5	579.6	547.9	524.6	520.9
40°	1148.0	1074.4	954.2	858.2	750.1	652.3	584.3	532.1	486.4	465.0	454.7
42.5°	1192.8	1104.2	957.9	845.2	721.3	612.2	533.9	465.9	423.1	399.8	404.4
45°	1239.4	1132.2	958.9	829.3	683.0	561.0	470.6	407.2	364.4	346.6	344.8
47.5°	1279.4	1155.5	957.0	807.0	640.2	502.3	404.4	343.9	312.2	295.4	293.5
50°	1332.5	1181.6	954.2	780.9	584.3	435.2	342.9	293.5	264.6	251.6	250.7
52.5°	1385.7	1210.5	952.3	744.5	525.6	371.8	287.0	247.9	228.3	221.8	219.9
55°	1455.5	1245.9	953.3	702.6	458.5	306.6	243.2	216.2	205.9	203.1	203.1
57.5°	1535.7	1291.5	958.9	656.0	388.6	253.5	211.5	199.4	198.5	200.3	201.3
60°	1632.6	1352.1	970.1	607.6	324.3	214.3	192.9	192.0	194.8	201.3	203.1
62.5°	1741.6	1418.3	984.0	544.2	262.8	188.2	182.6	186.4	190.1	197.6	198.5
65°	1837.6	1492.8	992.4	483.6	219.9	173.3	176.1	178.0	187.3	197.6	197.6
67.5°	1895.4	1546.9	960.7	407.2	183.6	160.3	165.9	171.5	181.7	191.0	192.9
70°	1875.8	1529.2	852.6	315.9	155.6	148.2	154.7	163.1	173.3	184.5	190.1
72.5°	1739.8	1403.4	692.4	230.2	135.1	137.0	145.4	156.6	165.9	178.0	185.4
75°	1454.6	1171.3	499.5	165.9	118.3	125.8	138.8	148.2	154.7	157.5	158.4
77.5°	1104.2	861.0	340.1	123.9	102.5	112.8	126.7	137.0	138.8	140.7	142.6
80°	721.3	547.9	192.0	86.7	78.3	92.3	103.4	114.6	110.9	116.5	118.3
82.5°	304.7	239.5	87.6	42.9	36.3	39.1	41.9	37.3	34.5	34.5	29.8
85°	40.1	30.8	13.0	5.6	4.7	2.8	2.8	2.8	1.9	1.9	1.9
87.5°	3.7	3.7	2.8	2.8	1.9	1.9	0.9	1.9	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: SP1-2407-157-4

Test Date: 08/07/2024

Luminaire Tested: MEM2-HTN-SA-40-730-U-5WQ-2

Data in this report applies to families of products including MEM2-HTN-SA-40-730-U-5WQ-2

**Test Information**

Test Method: LM-79-2019  
 Report Number: SP1-2407-157-4  
 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-40-730-U-5WQ-2**  
 Description: Epic Modern Light Square 40W 5WQ Optic and Flare Trim

**Spectral Parameters**

CCT (K): 3057  
 CIE u': 0.2487  
 CIE v': 0.5199  
 Duv: -0.0002  
 CIE x: 0.4326  
 CIE y: 0.4020  
 CIE z: 0.1654  
 Peak Wavelength (nm): 593  
 Dominant Wavelength (nm): 582  
 Purity: 50.50735  
 Rf: 74.6  
 Rg: 94

CRI (Ra):	71.7		
R1:	68.1	R9:	-34.8
R2:	82.0	R10:	58.5
R3:	93.5	R11:	62.5
R4:	67.5	R12:	47.5
R5:	67.2	R13:	70.7
R6:	74.9	R14:	96.4
R7:	77.4	R15:	60.0
R8:	43.1		



**Test Conditions**

Stabilization Time: 21M  
 Operation Time: 1H 21M  
 Sphere Temperature (°C): 24.2

REPORT NUMBER: SP1-2407-157-4

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: SP1-2407-157-4

CIE 1931 Chromaticity Diagram



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



Point lies inside the ANSI 3000K 4-step quadrangle

REPORT NUMBER: SP1-2407-157-4

**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	104	NR	620	818	NR	750	20	NR	880	1	NR
365	0	NR	495	135	NR	625	755	NR	755	17	NR	885	0	NR
370	0	NR	500	184	NR	630	691	NR	760	15	NR	890	0	NR
375	0	NR	505	247	NR	635	625	NR	765	13	NR	895	0	NR
380	0	NR	510	309	NR	640	561	NR	770	11	NR	900	0	NR
385	0	NR	515	369	NR	645	499	NR	775	9	NR	905	0	NR
390	0	NR	520	419	NR	650	441	NR	780	8	NR	910	0	NR
395	0	NR	525	460	NR	655	388	NR	785	7	NR	915	0	NR
400	1	NR	530	492	NR	660	338	NR	790	6	NR	920	0	NR
405	3	NR	535	524	NR	665	294	NR	795	5	NR	925	0	NR
410	7	NR	540	553	NR	670	253	NR	800	4	NR	930	0	NR
415	15	NR	545	588	NR	675	218	NR	805	4	NR	935	0	NR
420	31	NR	550	625	NR	680	188	NR	810	3	NR	940	0	NR
425	60	NR	555	670	NR	685	161	NR	815	3	NR	945	0	NR
430	107	NR	560	723	NR	690	139	NR	820	3	NR	950	0	NR
435	183	NR	565	780	NR	695	118	NR	825	2	NR	955	0	NR
440	289	NR	570	837	NR	700	100	NR	830	2	NR	960	0	NR
445	460	NR	575	894	NR	705	85	NR	835	2	NR	965	0	NR
450	646	NR	580	942	NR	710	73	NR	840	1	NR	970	0	NR
455	561	NR	585	976	NR	715	62	NR	845	1	NR	975	0	NR
460	331	NR	590	998	NR	720	53	NR	850	1	NR	980	0	NR
465	238	NR	595	1000	NR	725	45	NR	855	1	NR	985	0	NR
470	178	NR	600	990	NR	730	39	NR	860	1	NR	990	0	NR
475	120	NR	605	962	NR	735	33	NR	865	1	NR	995	0	NR
480	96	NR	610	925	NR	740	28	NR	870	1	NR	1000	0	NR
485	95	NR	615	873	NR	745	24	NR	875	1	NR			

REPORT NUMBER: SP1-2407-157-4

**Scotopic Flux vs. Wavelength**



**Scotopic Lumens: NR**

**S/P: 1.23**

$\lambda$ (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	104	NR	620	818	NR	750	20	NR	880	1	NR
365	0	NR	495	135	NR	625	755	NR	755	17	NR	885	0	NR
370	0	NR	500	184	NR	630	691	NR	760	15	NR	890	0	NR
375	0	NR	505	247	NR	635	625	NR	765	13	NR	895	0	NR
380	0	NR	510	309	NR	640	561	NR	770	11	NR	900	0	NR
385	0	NR	515	369	NR	645	499	NR	775	9	NR	905	0	NR
390	0	NR	520	419	NR	650	441	NR	780	8	NR	910	0	NR
395	0	NR	525	460	NR	655	388	NR	785	7	NR	915	0	NR
400	1	NR	530	492	NR	660	338	NR	790	6	NR	920	0	NR
405	3	NR	535	524	NR	665	294	NR	795	5	NR	925	0	NR
410	7	NR	540	553	NR	670	253	NR	800	4	NR	930	0	NR
415	15	NR	545	588	NR	675	218	NR	805	4	NR	935	0	NR
420	31	NR	550	625	NR	680	188	NR	810	3	NR	940	0	NR
425	60	NR	555	670	NR	685	161	NR	815	3	NR	945	0	NR
430	107	NR	560	723	NR	690	139	NR	820	3	NR	950	0	NR
435	183	NR	565	780	NR	695	118	NR	825	2	NR	955	0	NR
440	289	NR	570	837	NR	700	100	NR	830	2	NR	960	0	NR
445	460	NR	575	894	NR	705	85	NR	835	2	NR	965	0	NR
450	646	NR	580	942	NR	710	73	NR	840	1	NR	970	0	NR
455	561	NR	585	976	NR	715	62	NR	845	1	NR	975	0	NR
460	331	NR	590	998	NR	720	53	NR	850	1	NR	980	0	NR
465	238	NR	595	1000	NR	725	45	NR	855	1	NR	985	0	NR
470	178	NR	600	990	NR	730	39	NR	860	1	NR	990	0	NR
475	120	NR	605	962	NR	735	33	NR	865	1	NR	995	0	NR
480	96	NR	610	925	NR	740	28	NR	870	1	NR	1000	0	NR
485	95	NR	615	873	NR	745	24	NR	875	1	NR			

REPORT NUMBER: SP1-2407-157-4

**Melanopic Flux vs. Wavelength**



**Melanopic Lumens: NR**

**M/P: 2.27**

$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)
360	0	NR	490	104	NR	620	818	NR	750	20	NR	880	1	NR
365	0	NR	495	135	NR	625	755	NR	755	17	NR	885	0	NR
370	0	NR	500	184	NR	630	691	NR	760	15	NR	890	0	NR
375	0	NR	505	247	NR	635	625	NR	765	13	NR	895	0	NR
380	0	NR	510	309	NR	640	561	NR	770	11	NR	900	0	NR
385	0	NR	515	369	NR	645	499	NR	775	9	NR	905	0	NR
390	0	NR	520	419	NR	650	441	NR	780	8	NR	910	0	NR
395	0	NR	525	460	NR	655	388	NR	785	7	NR	915	0	NR
400	1	NR	530	492	NR	660	338	NR	790	6	NR	920	0	NR
405	3	NR	535	524	NR	665	294	NR	795	5	NR	925	0	NR
410	7	NR	540	553	NR	670	253	NR	800	4	NR	930	0	NR
415	15	NR	545	588	NR	675	218	NR	805	4	NR	935	0	NR
420	31	NR	550	625	NR	680	188	NR	810	3	NR	940	0	NR
425	60	NR	555	670	NR	685	161	NR	815	3	NR	945	0	NR
430	107	NR	560	723	NR	690	139	NR	820	3	NR	950	0	NR
435	183	NR	565	780	NR	695	118	NR	825	2	NR	955	0	NR
440	289	NR	570	837	NR	700	100	NR	830	2	NR	960	0	NR
445	460	NR	575	894	NR	705	85	NR	835	2	NR	965	0	NR
450	646	NR	580	942	NR	710	73	NR	840	1	NR	970	0	NR
455	561	NR	585	976	NR	715	62	NR	845	1	NR	975	0	NR
460	331	NR	590	998	NR	720	53	NR	850	1	NR	980	0	NR
465	238	NR	595	1000	NR	725	45	NR	855	1	NR	985	0	NR
470	178	NR	600	990	NR	730	39	NR	860	1	NR	990	0	NR
475	120	NR	605	962	NR	735	33	NR	865	1	NR	995	0	NR
480	96	NR	610	925	NR	740	28	NR	870	1	NR	1000	0	NR
485	95	NR	615	873	NR	745	24	NR	875	1	NR			

**Summary**

$R_f = 74.6$   
 $R_g = 94$   
 $CIE R_a = 71.7$   
 $R_9 = -34.8$



**Color Vector Graphics**





**Individual Sample Fidelity Index ( $R_{f,i}$ )**

CES01 = 86	CES26 = 65	CES51 = 87	CES76 = 58
CES02 = 62	CES27 = 89	CES52 = 85	CES77 = 76
CES03 = 31	CES28 = 84	CES53 = 77	CES78 = 61
CES04 = 71	CES29 = 68	CES54 = 85	CES79 = 86
CES05 = 49	CES30 = 83	CES55 = 84	CES80 = 83
CES06 = 51	CES31 = 71	CES56 = 74	CES81 = 73
CES07 = 41	CES32 = 64	CES57 = 74	CES82 = 93
CES08 = 40	CES33 = 78	CES58 = 75	CES83 = 91
CES09 = 29	CES34 = 75	CES59 = 85	CES84 = 88
CES10 = 76	CES35 = 87	CES60 = 90	CES85 = 75
CES11 = 59	CES36 = 92	CES61 = 81	CES86 = 64
CES12 = 65	CES37 = 84	CES62 = 89	CES87 = 77
CES13 = 43	CES38 = 92	CES63 = 75	CES88 = 80
CES14 = 74	CES39 = 96	CES64 = 65	CES89 = 67
CES15 = 71	CES40 = 92	CES65 = 64	CES90 = 80
CES16 = 47	CES41 = 93	CES66 = 60	CES91 = 78
CES17 = 50	CES42 = 86	CES67 = 58	CES92 = 56
CES18 = 56	CES43 = 77	CES68 = 66	CES93 = 73
CES19 = 73	CES44 = 99	CES69 = 75	CES94 = 49
CES20 = 66	CES45 = 85	CES70 = 60	CES95 = 66
CES21 = 87	CES46 = 81	CES71 = 56	CES96 = 76
CES22 = 79	CES47 = 86	CES72 = 85	CES97 = 82
CES23 = 92	CES48 = 75	CES73 = 52	CES98 = 76
CES24 = 91	CES49 = 79	CES74 = 95	CES99 = 64
CES25 = 73	CES50 = 86	CES75 = 60	



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)