

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: P868880

Luminaire Tested: **EMM2-HSN-SA1B-730-U-T2U**

Issue Date: 08/22/2024



**Test Information**

Test Method: LM-79-08  
Report Number: P868880  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 08/22/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: EMM2-HSN-SA1B-730-U-T2U  
Description: EPIC MODERN SHORT HOUSING DISCRETE LED ARRAYS 60W 70CRI 3000K  
FIXTURE w/ TYPE II URBAN DISTRIBUTION OPTIC  
Light Source: (10) 3000K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

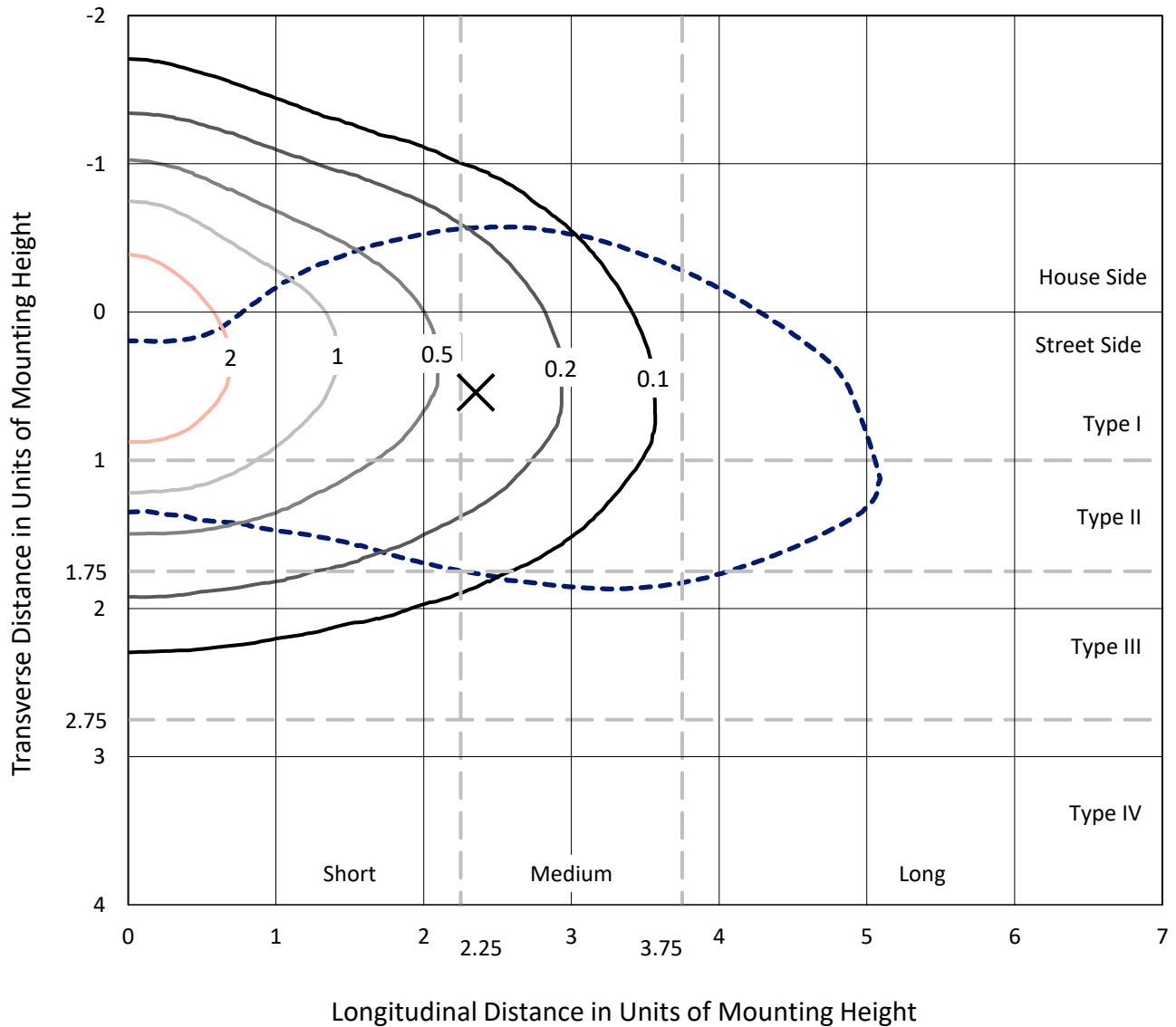
Lumens per Lamp: N/A  
Luminaire Lumens: 5946.1 lumens  
Efficiency: N/A  
Efficacy: 135.1 lumens/watt  
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')  
IES Classification: Type III - Medium  
BUG Rating: B2 - U0 - G2

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: P868880  
 CATALOG NUMBER: EMM2-HSN-SA1B-730-U-T2U

### Iso-Footcandle Lines of Horizontal Illumination

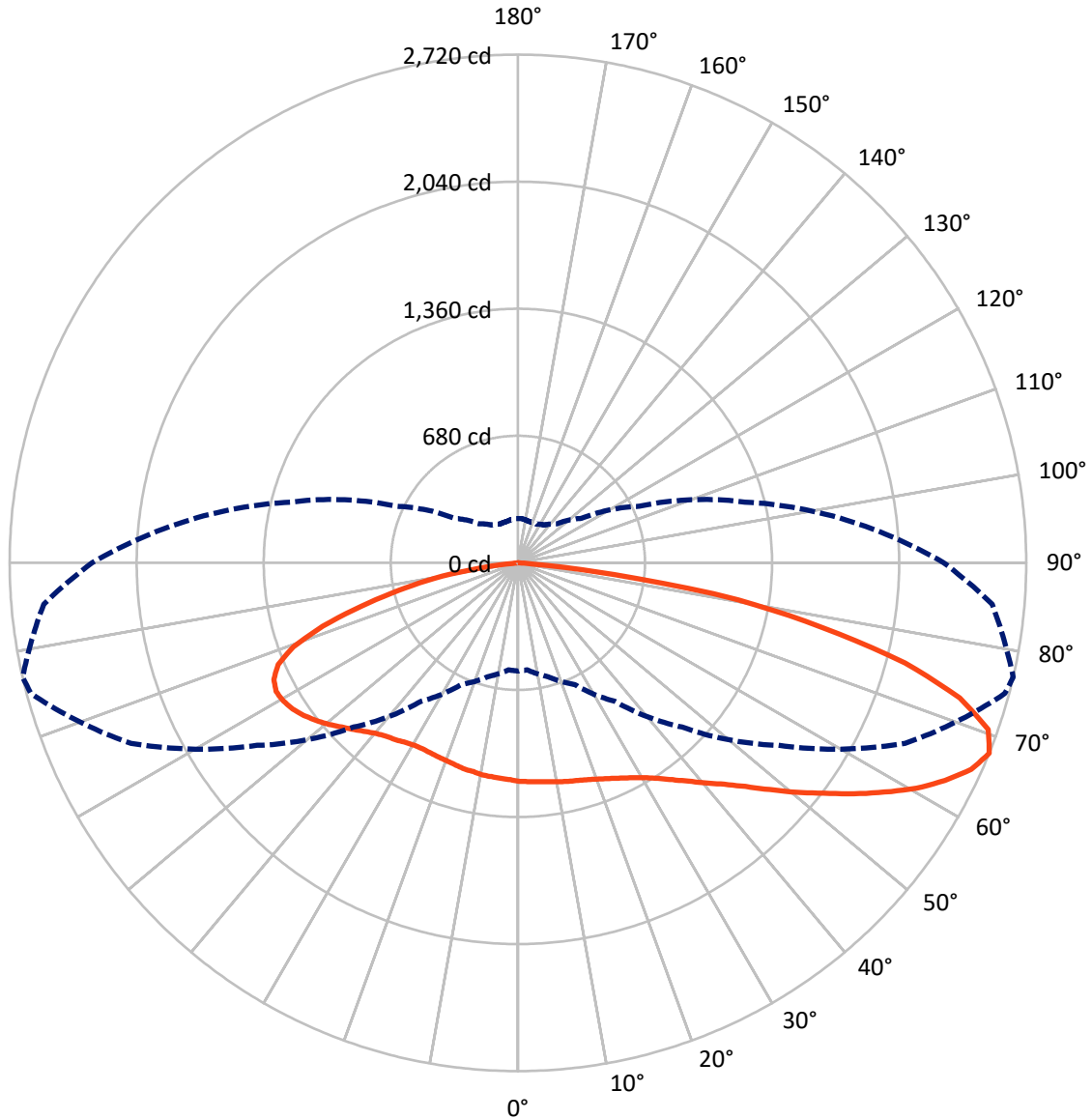
× Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 3.2 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	1977.3	0.0	1977.3
	% Fixture	33.3	0.0	33.3
<b>Street Side</b>	Lumens	3968.8	0.0	3968.8
	% Fixture	66.7	0.0	66.7
<b>Total</b>	Lumens	5946.1	0.0	5946.1
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	112.4	1.9
10°-20°	340.8	5.7
20°-30°	574.5	9.7
30°-40°	815.3	13.7
40°-50°	1031.5	17.3
50°-60°	1130.0	19.0
60°-70°	1092.3	18.4
70°-80°	734.6	12.4
80°-90°	114.8	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°	5946.1	100.0
0°-180°	5946.1	100.0



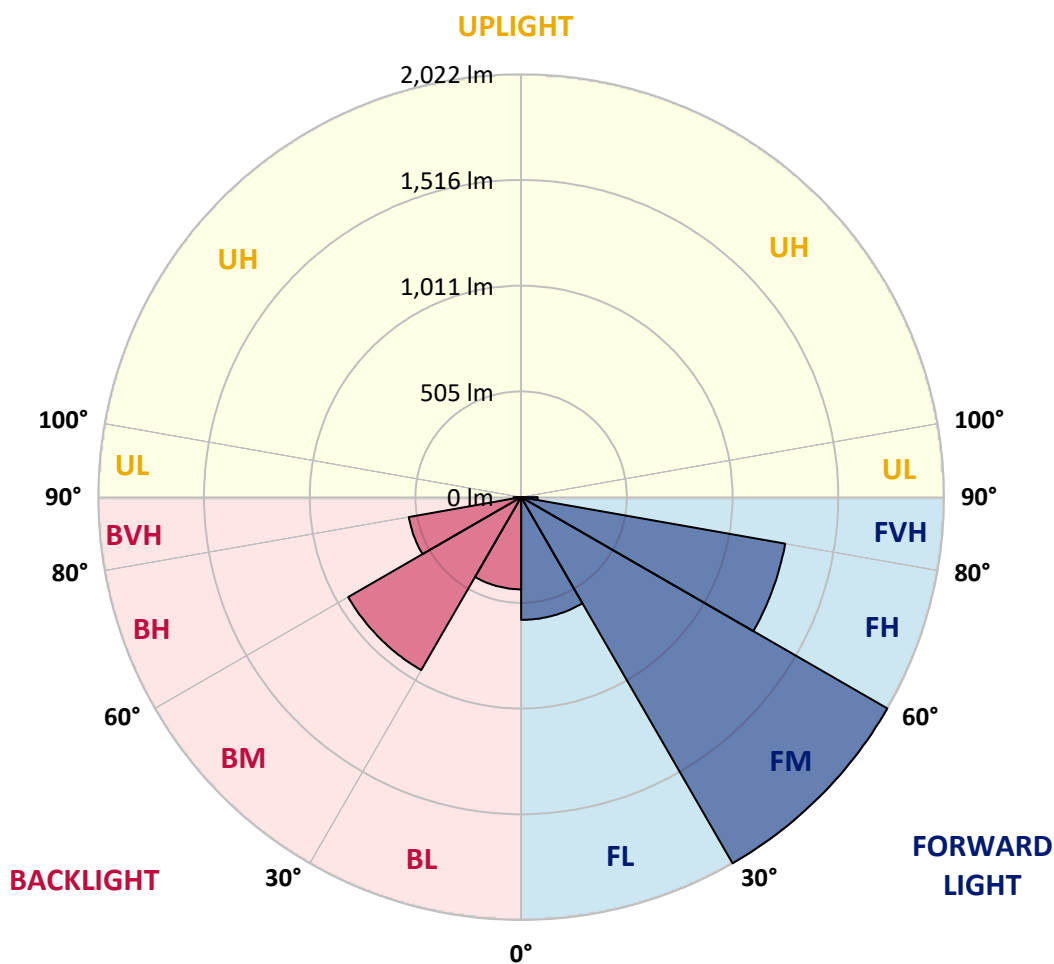
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	586.9	9.9			
FM	(30°-60°)	2021.8	34.0			
FH	(60°-80°)	1281.6	21.6			G1/1800
FVH	(80°-90°)	78.6	1.3			G1/100
BL	(0°-30°)	440.8	7.4	B1/500		
BM	(30°-60°)	955.0	16.1	B1/1000		
BH	(60°-80°)	545.3	9.2	B2/1000		G2/1000
BVH	(80°-90°)	36.2	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 III Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	1169.1	1169.1	1169.1	1169.1	1169.1	1169.1	1169.1	1169.1	1169.1	1169.1	1169.1
2.5°	1194.9	1193.8	1187.9	1190.2	1183.2	1187.9	1180.8	1175.0	1173.8	1172.6	1173.8
5°	1232.6	1226.7	1220.8	1217.3	1211.4	1209.1	1197.3	1185.5	1178.5	1177.3	1175.0
7.5°	1276.1	1273.7	1265.5	1260.8	1244.3	1236.1	1219.6	1198.5	1187.9	1183.2	1177.3
10°	1320.8	1326.7	1316.1	1306.7	1287.9	1270.2	1242.0	1214.9	1193.8	1191.4	1178.5
12.5°	1376.1	1374.9	1367.8	1351.4	1329.0	1304.3	1270.2	1232.6	1204.4	1199.7	1180.8
15°	1425.5	1424.3	1414.9	1399.6	1370.2	1339.6	1293.7	1250.2	1214.9	1207.9	1185.5
17.5°	1471.3	1469.0	1463.1	1446.6	1410.2	1372.5	1327.9	1270.2	1227.9	1219.6	1189.1
20°	1511.3	1513.7	1506.6	1490.2	1456.1	1416.1	1359.6	1296.1	1244.3	1234.9	1199.7
22.5°	1554.8	1556.0	1552.5	1546.6	1503.1	1460.8	1399.6	1325.5	1263.2	1253.8	1211.4
25°	1600.7	1601.9	1604.2	1600.7	1551.3	1505.4	1440.8	1362.0	1289.0	1276.1	1227.9
27.5°	1653.6	1654.8	1659.5	1652.5	1599.5	1551.3	1486.6	1400.8	1316.1	1302.0	1242.0
30°	1713.6	1718.3	1714.8	1712.4	1651.3	1604.2	1532.5	1440.8	1351.4	1333.7	1266.7
32.5°	1785.4	1784.2	1777.1	1770.1	1707.7	1658.3	1584.2	1492.5	1394.9	1374.9	1306.7
35°	1837.1	1837.1	1826.5	1823.0	1765.4	1713.6	1640.7	1550.1	1444.3	1425.5	1349.0
37.5°	1868.9	1873.6	1865.3	1867.7	1812.4	1764.2	1697.2	1608.9	1498.4	1481.9	1400.8
40°	1880.6	1892.4	1899.5	1908.9	1853.6	1812.4	1757.1	1672.5	1567.8	1549.0	1463.1
42.5°	1883.0	1900.6	1925.3	1945.3	1883.0	1848.9	1814.8	1737.1	1636.0	1619.5	1531.3
45°	1871.2	1863.0	1923.0	1925.3	1899.5	1878.3	1865.3	1814.8	1734.8	1707.7	1616.0
47.5°	1781.8	1772.4	1788.9	1864.2	1879.5	1891.2	1917.1	1905.3	1833.6	1812.4	1713.6
50°	1637.2	1632.5	1698.3	1779.5	1830.1	1890.0	1959.4	1992.4	1943.0	1930.0	1837.1
52.5°	1398.4	1385.5	1519.6	1677.2	1765.4	1878.3	1988.8	2081.8	2066.5	2047.6	1943.0
55°	1246.7	1246.7	1337.3	1533.7	1683.0	1835.9	2007.7	2175.8	2202.9	2181.7	2064.1
57.5°	1084.4	1097.3	1191.4	1326.7	1564.3	1758.3	2005.3	2254.6	2334.6	2314.6	2192.3
60°	945.6	956.2	1010.3	1146.7	1424.3	1656.0	1979.4	2319.3	2456.9	2449.9	2305.2
62.5°	804.5	817.4	860.9	989.1	1239.6	1538.4	1925.3	2354.6	2572.2	2565.1	2419.3
65°	691.6	692.7	736.3	843.3	1055.0	1396.1	1830.1	2347.6	2661.6	2666.3	2515.7
67.5°	578.7	575.1	631.6	718.6	904.4	1243.2	1703.0	2285.2	2699.2	2720.4	2547.5
70°	425.8	430.5	509.3	605.7	764.5	1066.8	1525.4	2164.1	2638.1	2671.0	2474.6
72.5°	319.9	329.3	405.8	505.7	638.6	890.3	1331.4	1953.6	2467.5	2472.2	2252.3
75°	259.9	262.3	330.5	419.9	523.4	713.9	1069.1	1631.3	2086.5	2140.6	1913.6
77.5°	221.1	218.8	251.7	338.7	422.2	570.4	805.6	1240.8	1638.4	1663.0	1498.4
80°	188.2	187.0	198.8	274.0	330.5	406.9	551.6	864.5	1169.1	1196.1	1064.4
82.5°	98.8	105.9	103.5	169.4	187.0	214.1	264.6	392.8	510.4	517.5	489.3
85°	4.7	4.7	4.7	7.1	11.8	18.8	36.5	36.5	40.0	76.4	87.0
87.5°	1.2	1.2	2.4	2.4	2.4	3.5	3.5	4.7	4.7	4.7	4.7
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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CATALOG NUMBER: EMM2-HSN-SA1B-730-U-T2U

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1169.1	1169.1	1169.1	1169.1	1169.1	1169.1	1169.1	1169.1	1169.1	1169.1	1169.1
2.5°	1171.4	1166.7	1159.7	1160.8	1159.7	1159.7	1153.8	1149.1	1147.9	1150.3	1155.0
5°	1172.6	1165.5	1155.0	1151.4	1147.9	1145.6	1136.1	1129.1	1125.6	1127.9	1129.1
7.5°	1172.6	1162.0	1150.3	1143.2	1133.8	1126.7	1116.1	1106.7	1102.0	1103.2	1105.6
10°	1170.3	1158.5	1149.1	1135.0	1119.7	1111.4	1095.0	1083.2	1077.3	1078.5	1072.6
12.5°	1170.3	1157.3	1138.5	1125.6	1104.4	1086.7	1073.8	1060.9	1056.2	1051.5	1049.1
15°	1171.4	1155.0	1136.1	1109.1	1084.4	1065.6	1049.1	1040.9	1033.8	1031.5	1032.6
17.5°	1171.4	1155.0	1126.7	1095.0	1066.8	1043.2	1029.1	1019.7	1017.4	1015.0	1015.0
20°	1177.3	1156.1	1118.5	1080.9	1045.6	1020.9	1007.9	1002.1	1002.1	998.5	998.5
22.5°	1186.7	1158.5	1113.8	1069.1	1027.9	1000.9	986.8	979.7	983.2	980.9	979.7
25°	1197.3	1166.7	1107.9	1052.6	1004.4	976.2	962.1	957.4	956.2	950.3	958.5
27.5°	1205.5	1172.6	1104.4	1036.2	983.2	950.3	932.7	924.4	918.6	920.9	918.6
30°	1227.9	1189.1	1105.6	1022.1	959.7	919.7	898.6	889.2	886.8	886.8	886.8
32.5°	1258.5	1210.2	1113.8	1016.2	937.4	890.3	864.5	855.0	852.7	848.0	850.3
35°	1297.3	1242.0	1126.7	1006.8	919.7	856.2	828.0	815.1	811.5	806.8	806.8
37.5°	1340.8	1273.7	1136.1	1002.1	896.2	820.9	789.2	772.7	770.4	765.7	768.0
40°	1396.1	1317.3	1151.4	992.7	869.2	789.2	746.8	719.8	725.7	728.0	732.7
42.5°	1458.4	1372.5	1175.0	983.2	848.0	756.3	693.9	666.9	673.9	671.6	676.3
45°	1543.1	1437.2	1204.4	979.7	822.1	716.3	639.8	609.2	606.9	603.4	605.7
47.5°	1631.3	1514.9	1232.6	972.7	793.9	666.9	578.7	539.8	530.4	525.7	521.0
50°	1723.0	1592.5	1265.5	968.0	756.3	611.6	517.5	472.8	455.2	449.3	443.4
52.5°	1826.5	1676.0	1293.7	956.2	715.1	554.0	462.2	411.6	391.7	379.9	381.1
55°	1935.9	1752.4	1319.6	942.1	668.0	499.9	406.9	364.6	344.6	341.1	341.1
57.5°	2037.1	1831.2	1338.4	917.4	621.0	446.9	361.1	324.6	315.2	319.9	319.9
60°	2140.6	1894.7	1347.8	890.3	572.8	402.2	329.3	299.9	295.2	304.6	305.8
62.5°	2224.1	1945.3	1345.5	852.7	519.8	363.4	298.7	275.2	277.6	294.0	297.6
65°	2284.0	1970.0	1316.1	796.2	469.3	329.3	271.7	249.3	249.3	261.1	264.6
67.5°	2279.3	1938.3	1257.3	717.4	415.2	295.2	247.0	229.3	229.3	237.6	236.4
70°	2182.9	1828.9	1145.6	622.2	362.2	265.8	225.8	212.9	211.7	215.2	214.1
72.5°	1951.2	1606.6	971.5	514.0	312.9	236.4	204.6	192.9	190.5	185.8	182.3
75°	1610.1	1319.6	758.6	409.3	264.6	208.2	184.7	174.1	164.7	170.5	167.0
77.5°	1249.1	1012.6	564.5	317.6	215.2	181.1	164.7	152.9	150.5	171.7	164.7
80°	911.5	699.8	398.7	227.0	167.0	147.0	137.6	128.2	162.3	217.6	216.4
82.5°	404.6	337.5	182.3	108.2	77.6	64.7	54.1	61.2	102.3	100.0	103.5
85°	36.5	37.6	20.0	12.9	8.2	7.1	4.7	4.7	3.5	3.5	3.5
87.5°	4.7	4.7	3.5	3.5	2.4	2.4	2.4	2.4	1.2	1.2	1.2
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: SP1-2407-157-4

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:  $4\pi$   
 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

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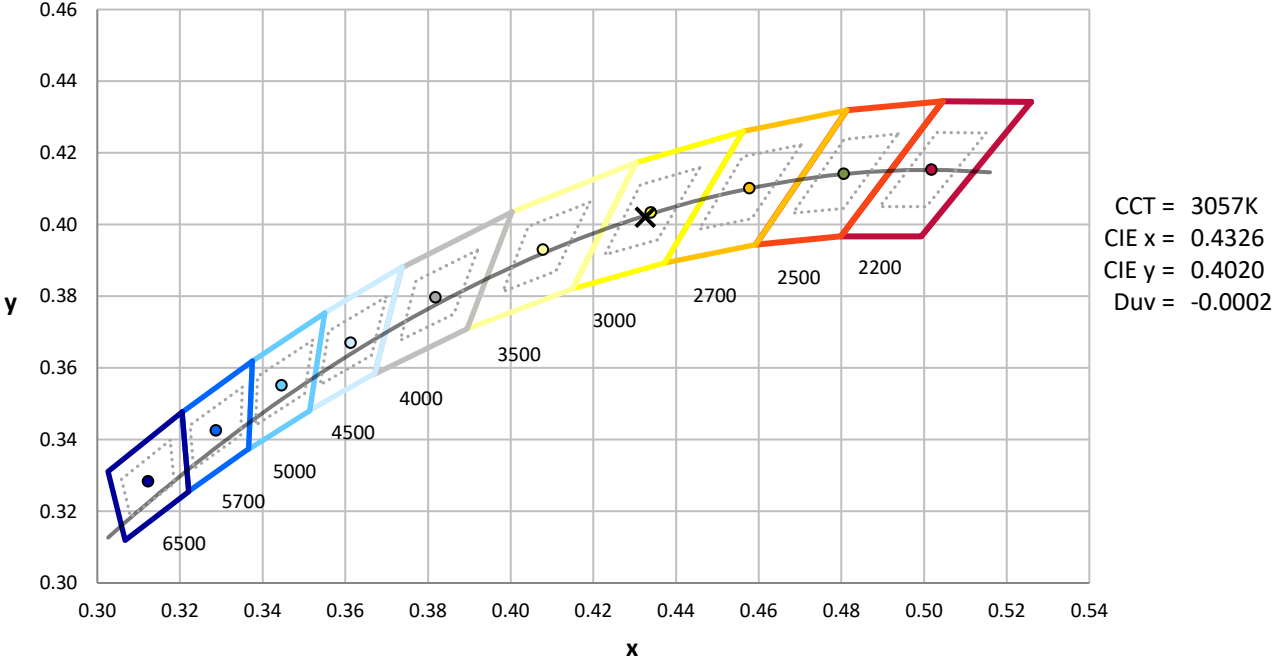
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085	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 3000K 4-step quadrangle

CCT = 3057K  
 CIE x = 0.4326  
 CIE y = 0.4020  
 Duv = -0.0002

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**Photopic Flux vs. Wavelength**

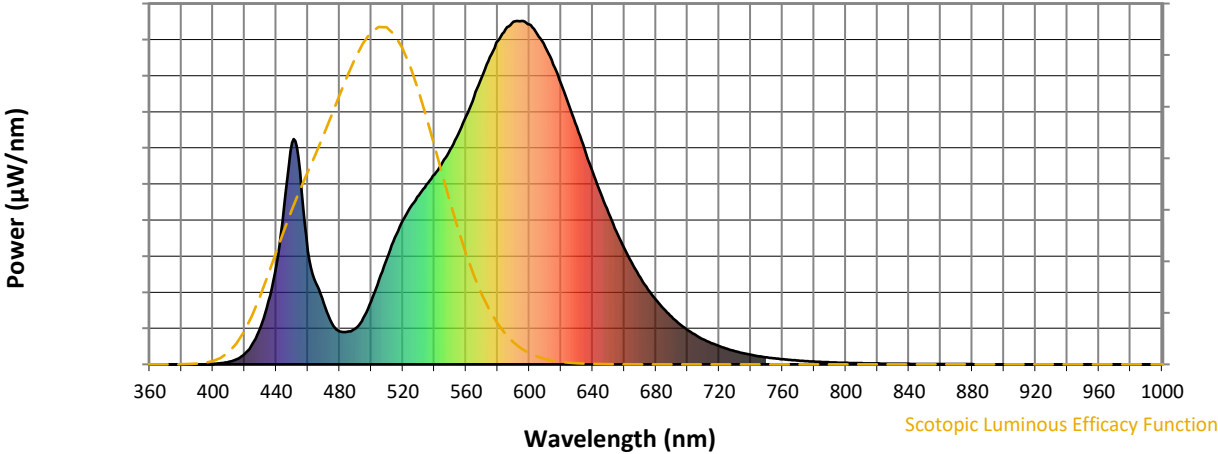


**Photopic Lumens: NR**

$\lambda$ (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	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			

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Scotopic Flux vs. Wavelength



Scotopic Lumens: NR S/P: 1.23

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	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			

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Melanopic Flux vs. Wavelength



Melanopic Lumens: NR

M/P: 2.27

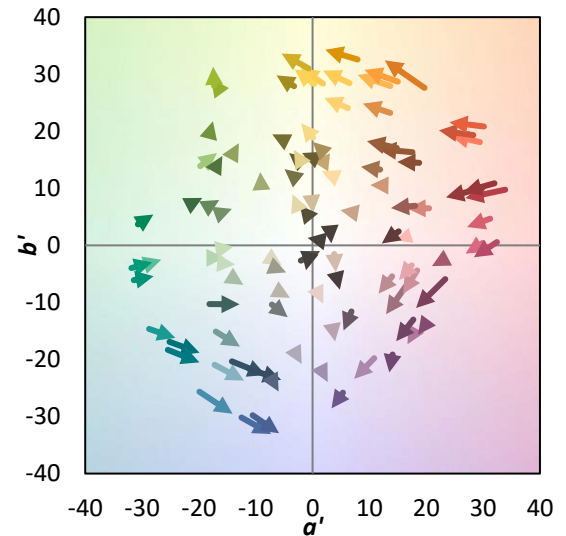
λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)
360	0	NR	490	104	NR	620	818	NR	750	20	NR	880	1	NR
365	0	NR	495	135	NR	625	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**



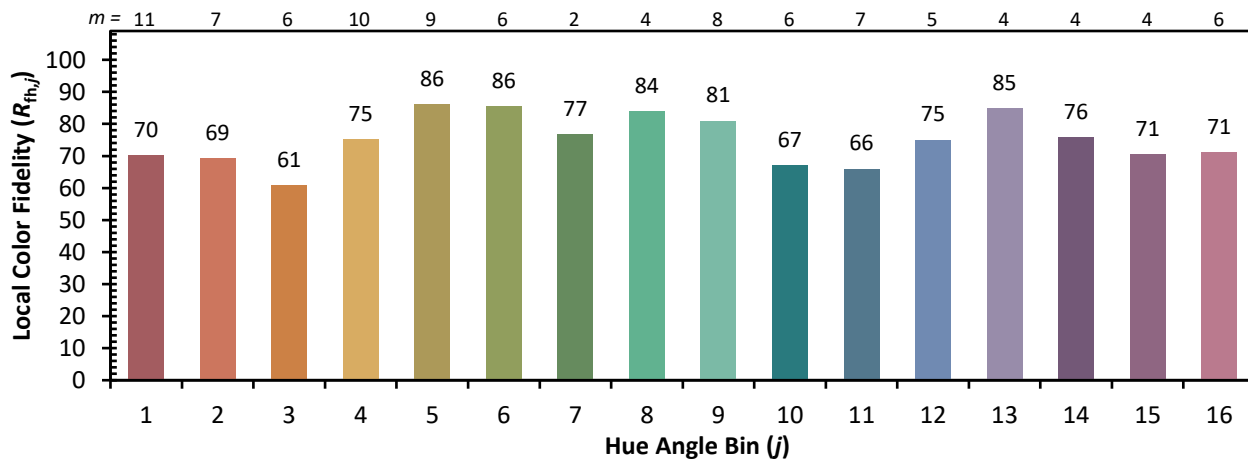


**Individual Sample Fidelity Index ( $R_{f,i}$ )**

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)