

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: P871245

Luminaire Tested: **EMM2-HSN-SA1B-830-U-T4W**

Issue Date: 09/05/2024



**Test Information**

Test Method: LM-79-08  
Report Number: P871245  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 09/05/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: EMM2-HSN-SA1B-830-U-T4W  
Description: EPIC MODERN SHORT HOUSING DISCRETE LED ARRAYS 60W 80CRI 3000K  
FITXURE w/ TYPE IV WIDE DISTRIBUTION OPTIC  
Light Source: (10) 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

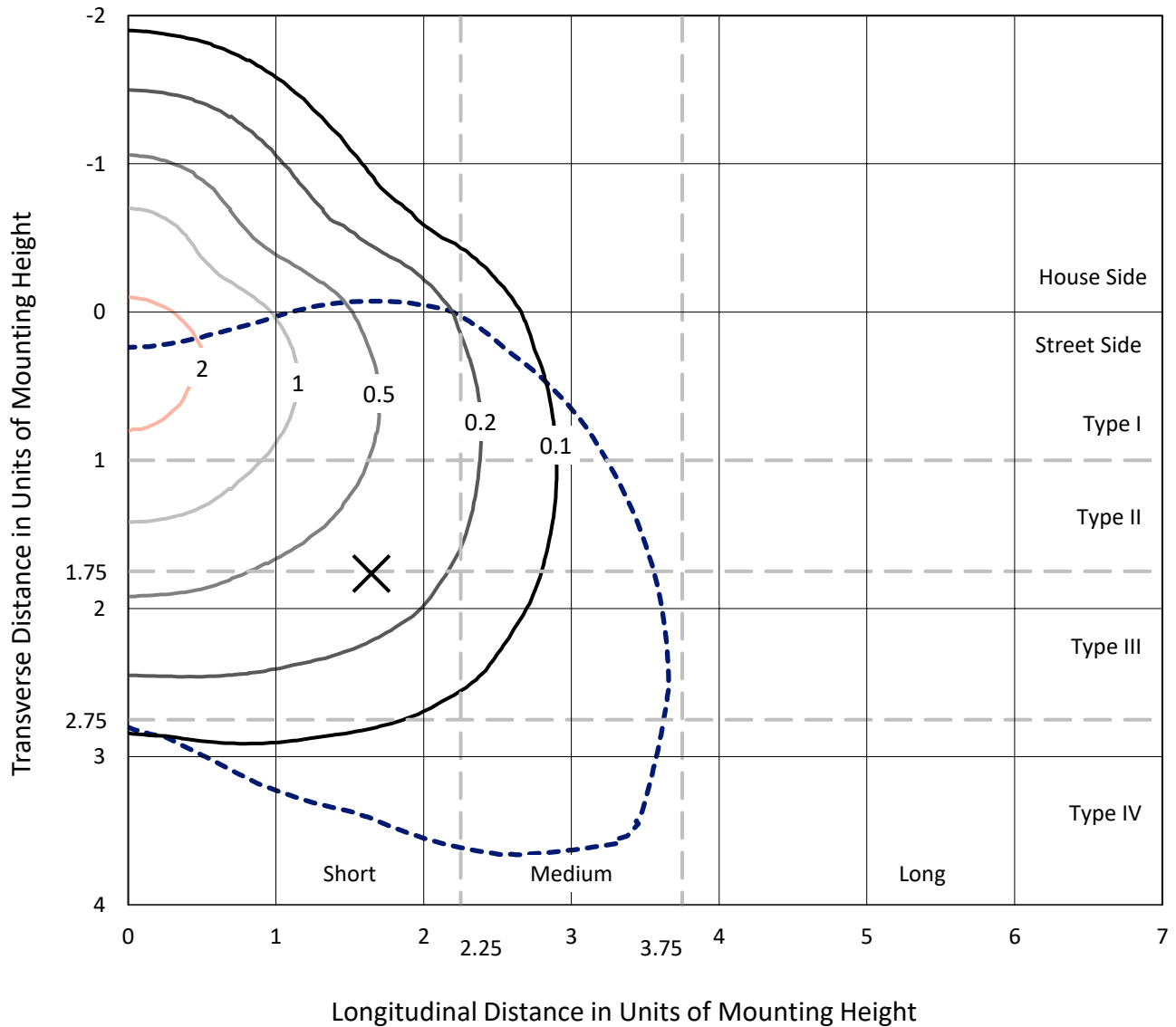
Lumens per Lamp: N/A  
Luminaire Lumens: 5383.1 lumens  
Efficiency: N/A  
Efficacy: 122.3 lumens/watt  
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B1 - U0 - G1

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: P871245  
 CATALOG NUMBER: EMM2-HSN-SA1B-830-U-T4W

### Iso-Footcandle Lines of Horizontal Illumination

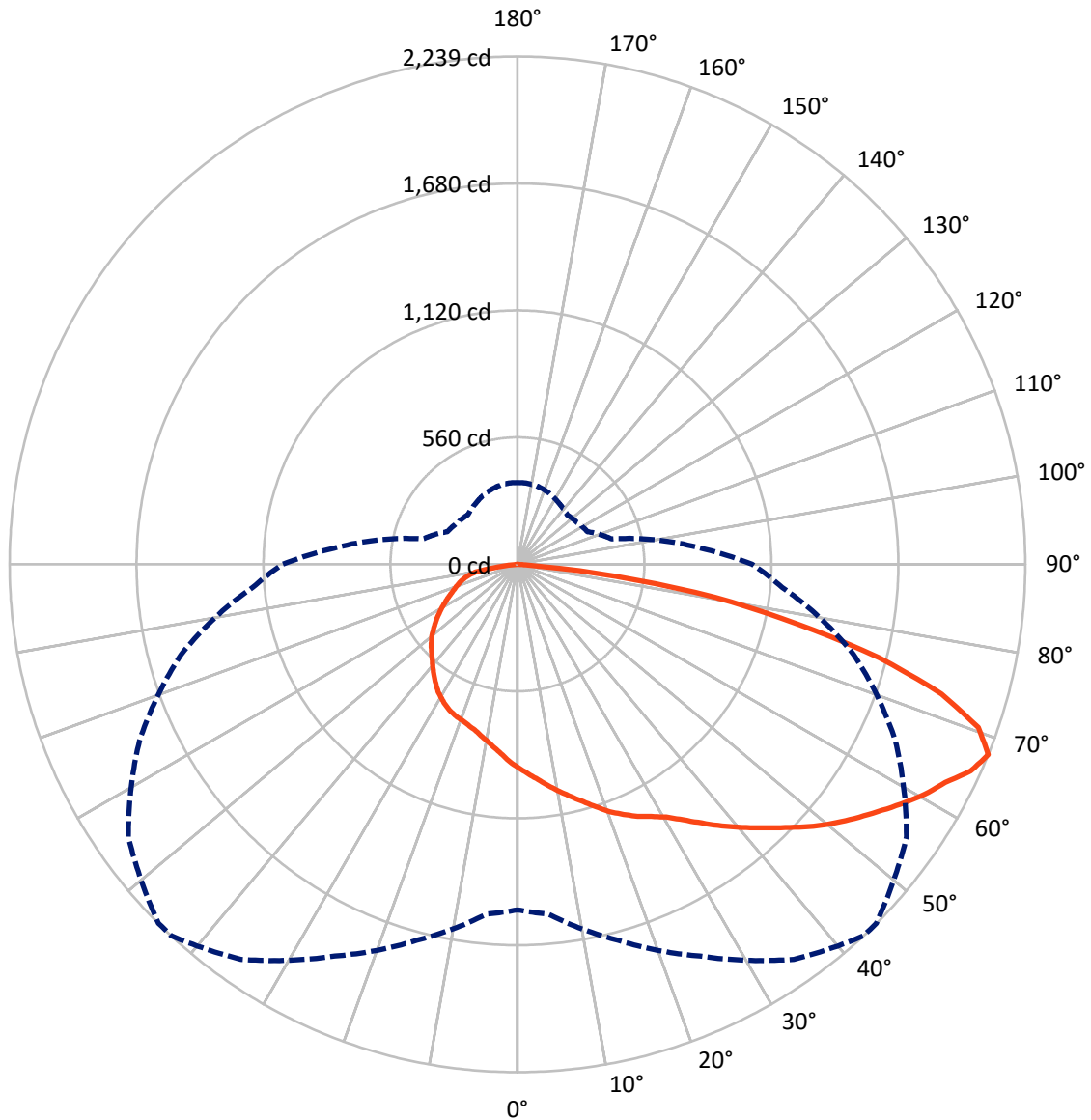
✕ Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 2.6 fc  
 Type IV - Short - N/A

REPORT NUMBER: P871245  
CATALOG NUMBER: EMM2-HSN-SA1B-830-U-T4W

### Luminous Intensity Polar Plot



— Vertical Plane Through 43-Deg Lateral    - - - Horizontal Cone Through 67.5-Deg Vertical

REPORT NUMBER: P871245  
 CATALOG NUMBER: EMM2-HSN-SA1B-830-U-T4W

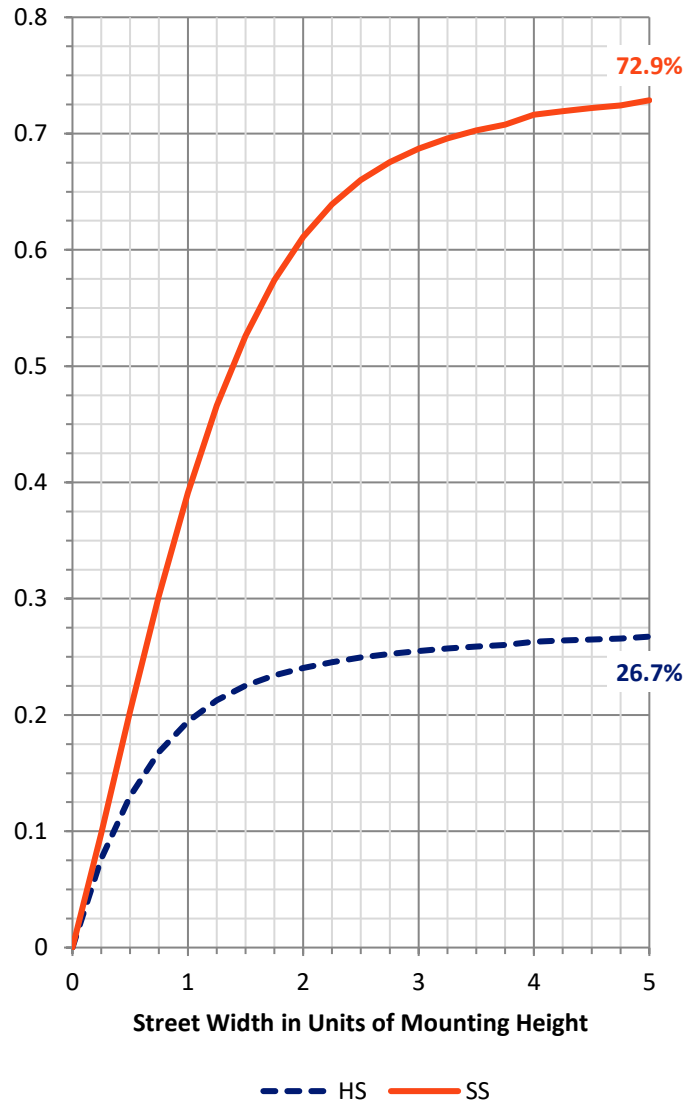
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1448.1	0.0	1448.1
	% Fixture	26.9	0.0	26.9
<b>Street Side</b>	Lumens	3935.0	0.0	3935.0
	% Fixture	73.1	0.0	73.1
<b>Total</b>	Lumens	5383.1	0.0	5383.1
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	86.0	1.6
10°-20°	262.6	4.9
20°-30°	448.1	8.3
30°-40°	653.5	12.1
40°-50°	877.9	16.3
50°-60°	1074.7	20.0
60°-70°	1131.1	21.0
70°-80°	738.4	13.7
80°-90°	110.8	2.1
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°	5383.1	100.0
0°-180°	5383.1	100.0



REPORT NUMBER: P871245

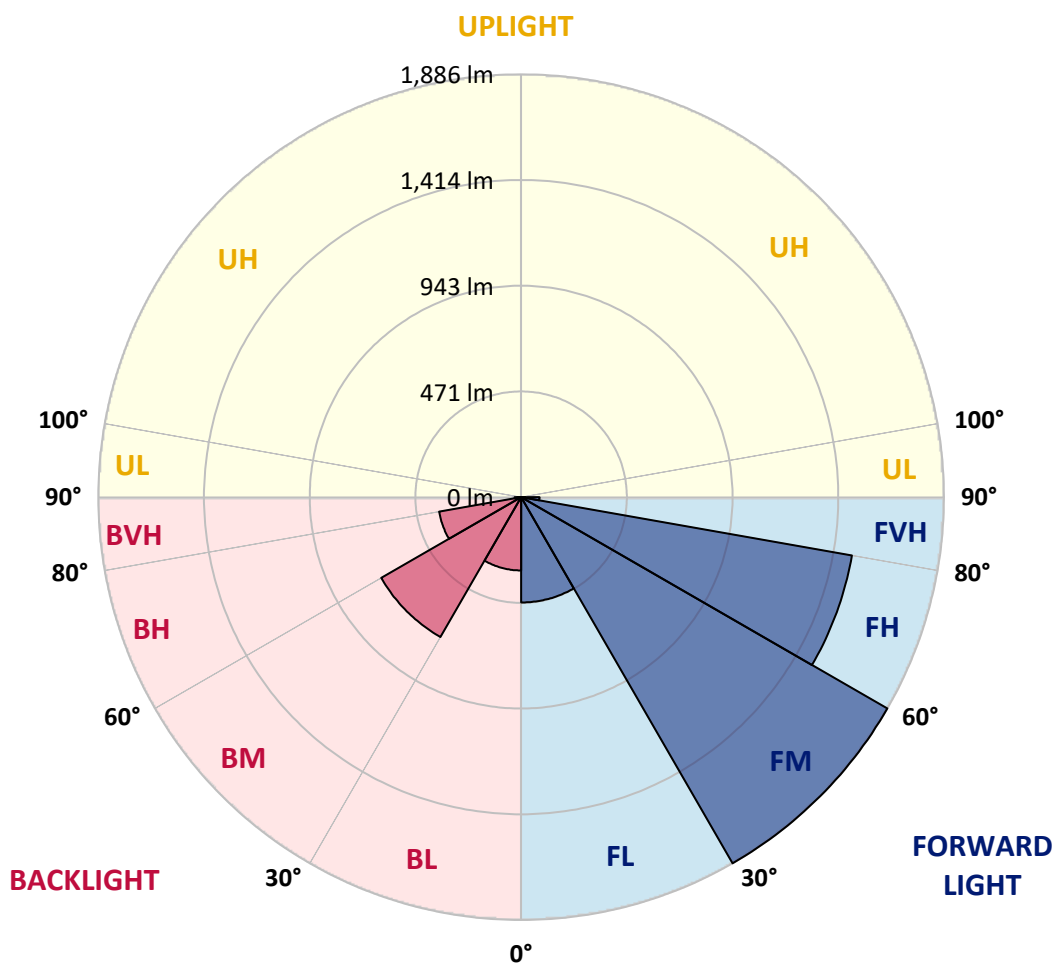
CATALOG NUMBER: EMM2-HSN-SA1B-830-U-T4W

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	469.8	8.7			
FM	(30°-60°)	1885.7	35.0			
FH	(60°-80°)	1497.9	27.8			G1/1800
FVH	(80°-90°)	81.7	1.5			G1/100
BL	(0°-30°)	326.9	6.1	B1/500		
BM	(30°-60°)	720.5	13.4	B1/1000		
BH	(60°-80°)	371.6	6.9	B1/500		G1/500
BVH	(80°-90°)	29.0	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 IV Short





REPORT NUMBER: P871245

CATALOG NUMBER: EMM2-HSN-SA1B-830-U-T4W

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	43°	45°	55°	65°	75°	85°
0°	898.6	898.6	898.6	898.6	898.6	898.6	898.6	898.6	898.6	898.6	898.6
2.5°	940.0	938.9	935.6	933.5	926.9	925.8	925.8	919.3	911.7	907.3	903.0
5°	982.5	977.0	974.8	970.5	959.6	953.1	955.2	943.3	928.0	917.1	905.1
7.5°	1020.6	1018.4	1010.8	1005.3	992.3	985.7	983.6	965.0	945.4	929.1	909.5
10°	1066.3	1060.9	1056.5	1045.6	1028.2	1018.4	1015.1	991.2	966.1	944.3	918.2
12.5°	1107.7	1101.2	1095.7	1084.9	1067.4	1051.1	1046.7	1019.5	987.9	958.5	925.8
15°	1139.3	1140.4	1135.0	1125.2	1105.6	1085.9	1082.7	1046.7	1008.6	972.7	933.5
17.5°	1168.7	1173.1	1169.8	1163.3	1143.7	1124.1	1120.8	1080.5	1034.8	989.0	942.2
20°	1197.0	1197.0	1196.0	1191.6	1177.4	1164.4	1157.8	1117.5	1059.8	1006.4	954.2
22.5°	1213.4	1217.7	1217.7	1217.7	1209.0	1198.1	1196.0	1156.7	1093.6	1028.2	965.0
25°	1238.4	1243.9	1243.9	1241.7	1234.1	1230.8	1227.5	1190.5	1126.2	1053.3	977.0
27.5°	1291.8	1290.7	1282.0	1271.1	1260.2	1259.1	1254.8	1228.6	1164.4	1080.5	993.4
30°	1365.9	1368.1	1357.2	1323.4	1298.3	1292.9	1294.0	1271.1	1209.0	1112.1	1011.9
32.5°	1479.2	1479.2	1436.7	1393.1	1357.2	1343.0	1339.7	1320.1	1254.8	1146.9	1032.6
35°	1564.1	1560.8	1536.9	1485.7	1441.0	1400.7	1395.3	1369.1	1306.0	1186.2	1055.4
37.5°	1628.4	1634.9	1616.4	1577.2	1533.6	1463.9	1453.0	1416.0	1352.8	1224.3	1078.3
40°	1752.5	1736.2	1691.5	1655.6	1603.3	1526.0	1516.2	1470.4	1400.7	1266.8	1106.6
42.5°	1842.9	1820.1	1768.9	1721.0	1655.6	1588.1	1579.4	1529.3	1456.3	1314.7	1136.0
45°	1972.6	1921.4	1850.6	1808.1	1715.5	1655.6	1644.7	1590.3	1514.0	1365.9	1173.1
47.5°	2097.8	2008.5	1933.4	1913.7	1780.9	1728.6	1719.9	1656.7	1576.1	1421.4	1209.0
50°	2081.5	2022.7	1997.6	1979.1	1837.5	1797.2	1788.5	1724.2	1639.3	1480.2	1245.0
52.5°	2040.1	2045.5	2046.6	2002.0	1890.9	1861.5	1852.8	1797.2	1704.6	1531.4	1279.8
55°	2083.7	2090.2	2089.1	2021.6	1953.0	1925.7	1920.3	1871.3	1767.8	1579.4	1304.9
57.5°	2150.1	2128.3	2125.1	2070.6	2019.4	1994.4	1987.8	1945.3	1821.2	1614.2	1324.5
60°	2162.1	2118.5	2132.7	2081.5	2069.5	2061.9	2059.7	2009.6	1871.3	1642.5	1332.1
62.5°	2028.1	2020.5	2076.0	2055.3	2095.6	2117.4	2118.5	2055.3	1898.5	1653.4	1324.5
65°	1799.4	1829.9	1949.7	2009.6	2134.9	2196.9	2194.8	2082.6	1895.2	1621.8	1277.6
67.5°	1523.8	1547.8	1716.6	1906.1	2126.1	2239.4	2238.3	2094.6	1838.6	1534.7	1172.0
70°	1155.7	1230.8	1470.4	1719.9	2008.5	2155.6	2174.1	2027.0	1709.0	1375.7	1011.9
72.5°	879.0	891.0	1180.7	1442.1	1798.3	1956.2	1953.0	1811.4	1492.2	1158.9	843.1
75°	624.1	650.3	888.8	1117.5	1473.7	1649.1	1641.4	1485.7	1190.5	901.9	644.8
77.5°	465.1	474.9	650.3	828.9	1102.3	1260.2	1257.0	1097.9	875.7	662.2	480.3
80°	339.8	356.2	468.4	578.4	747.2	883.4	879.0	728.7	562.0	462.9	350.7
82.5°	190.6	202.6	272.3	349.6	394.3	436.8	418.3	349.6	256.0	199.3	172.1
85°	5.4	6.5	9.8	12.0	20.7	34.9	38.1	33.8	40.3	25.1	27.2
87.5°	2.2	2.2	2.2	2.2	2.2	3.3	3.3	3.3	3.3	3.3	3.3
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: P871245

CATALOG NUMBER: EMM2-HSN-SA1B-830-U-T4W

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	898.6	898.6	898.6	898.6	898.6	898.6	898.6	898.6	898.6	898.6	898.6
2.5°	900.8	896.4	887.7	882.3	879.0	874.6	868.1	863.7	860.5	864.8	863.7
5°	899.7	891.0	875.7	864.8	853.9	845.2	835.4	827.8	823.4	825.6	824.5
7.5°	899.7	888.8	864.8	847.4	831.1	818.0	807.1	797.3	792.9	794.0	792.9
10°	904.0	888.8	857.2	832.2	810.4	795.1	783.1	774.4	771.2	774.4	775.5
12.5°	908.4	888.8	850.7	819.1	790.8	774.4	763.5	758.1	760.3	761.4	762.4
15°	910.6	887.7	844.1	803.8	772.3	754.8	748.3	747.2	752.6	758.1	759.2
17.5°	916.0	886.6	834.3	788.6	755.9	741.8	738.5	742.8	753.7	761.4	763.5
20°	922.6	888.8	823.4	770.1	739.6	728.7	734.1	743.9	757.0	767.9	770.1
22.5°	929.1	889.9	813.6	753.7	722.1	720.0	732.0	746.1	761.4	772.3	774.4
25°	936.7	889.9	800.6	733.0	704.7	708.0	726.5	745.0	759.2	773.3	775.5
27.5°	944.3	892.1	786.4	710.2	682.9	692.7	715.6	738.5	753.7	767.9	771.2
30°	957.4	896.4	774.4	690.6	661.2	674.2	701.5	727.6	743.9	759.2	762.4
32.5°	970.5	903.0	764.6	669.9	639.4	654.6	685.1	714.5	732.0	746.1	748.3
35°	987.9	911.7	757.0	649.2	617.6	629.6	662.2	694.9	714.5	725.4	730.9
37.5°	1006.4	923.7	750.5	630.7	593.6	604.5	639.4	674.2	694.9	705.8	708.0
40°	1029.3	940.0	746.1	613.2	570.7	579.5	614.3	652.4	672.0	679.7	684.0
42.5°	1054.4	957.4	742.8	595.8	545.7	554.4	591.4	628.5	648.1	654.6	657.9
45°	1085.9	980.3	740.7	577.3	525.0	532.6	569.7	606.7	623.0	631.7	635.0
47.5°	1115.4	1003.2	734.1	555.5	502.1	513.0	546.8	579.5	598.0	603.4	606.7
50°	1144.8	1022.8	721.1	531.5	481.4	491.2	521.7	545.7	559.9	566.4	568.6
52.5°	1173.1	1036.9	700.4	506.5	459.6	466.2	491.2	514.1	523.9	526.1	532.6
55°	1191.6	1044.6	671.0	477.1	437.9	440.0	458.6	479.3	484.7	485.8	485.8
57.5°	1204.7	1040.2	636.1	447.7	416.1	416.1	427.0	443.3	445.5	446.6	448.8
60°	1206.8	1024.9	591.4	420.4	392.1	388.8	399.7	409.5	410.6	412.8	415.0
62.5°	1190.5	991.2	543.5	394.3	369.2	361.6	371.4	381.2	386.7	389.9	392.1
65°	1140.4	922.6	489.1	368.2	347.5	334.4	346.4	362.7	373.6	374.7	374.7
67.5°	1035.8	811.5	431.3	340.9	321.3	309.3	324.6	342.0	355.1	360.5	359.4
70°	877.9	688.4	378.0	312.6	295.2	287.6	303.9	323.5	334.4	338.7	340.9
72.5°	706.9	551.1	331.1	284.3	272.3	267.9	284.3	303.9	319.1	325.7	326.8
75°	550.1	433.5	291.9	254.9	245.1	246.2	263.6	283.2	299.5	302.8	293.0
77.5°	427.0	345.3	254.9	220.0	214.6	222.2	239.6	260.3	270.1	273.4	266.9
80°	308.2	264.7	205.9	173.2	173.2	185.2	200.4	224.4	227.6	223.3	225.5
82.5°	146.0	128.5	101.3	83.9	78.4	87.1	92.6	100.2	108.9	111.1	105.7
85°	19.6	13.1	9.8	10.9	9.8	6.5	4.4	4.4	4.4	3.3	3.3
87.5°	3.3	3.3	2.2	2.2	2.2	2.2	2.2	2.2	1.1	1.1	1.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



LM-79-2019: Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Report Prepared for

Cooper Lighting Solutions

Streetworks

Report Number: SP1-2407-157-7

Test Date: 09/05/2024

Luminaire Tested: MEM2-HTN-SA-40-830-U-5WQ

Data in this report applies to families of products including MEM2-HTN-SA-40-830-U-5WQ

**Test Information**

Test Method: LM-79-2019  
 Report Number: SP1-2407-157-7  
 Test Lab: COOPER LIGHTING SOLUTIONS  
 Photometer: SP1 - 76IN SPHERE  
 Measurement Geometry: 4π  
 Issue Date: 09/05/2024  
 Manufacturer: COOPER LIGHTING SOLUTIONS  
 Product Line: Streetworks  
 Catalog Number: **MEM2-HTN-SA-40-830-U-5WQ**  
 Description: Epic Modern Light Square 40W 5WQ Optic

**Spectral Parameters**

CCT (K): 3126  
 CIE u': 0.2465  
 CIE v': 0.5182  
 Duv: -0.0004  
 CIE x: 0.4277  
 CIE y: 0.3997  
 CIE z: 0.1727  
 Peak Wavelength (nm): 601  
 Dominant Wavelength (nm): 582  
 Purity: 48.31913  
 Rf: 84.4  
 Rg: 94.7

CRI (Ra):	82.6		
R1:	81.4	R9:	5.1
R2:	92.2	R10:	82.2
R3:	94.9	R11:	79.8
R4:	80.1	R12:	70.4
R5:	81.8	R13:	84.2
R6:	90.5	R14:	97.9
R7:	81.8	R15:	73.6
R8:	58.0		



**Test Conditions**

Stabilization Time: 22M  
 Operation Time: 1H 22M  
 Sphere Temperature (°C): 24.3

REPORT NUMBER: SP1-2407-157-7

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: SP1-2407-157-7

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: SP1-2407-157-7

**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	258	NR	620	908	NR	750	26	NR	880	1	NR
365	0	NR	495	297	NR	625	857	NR	755	22	NR	885	0	NR
370	0	NR	500	345	NR	630	801	NR	760	19	NR	890	0	NR
375	0	NR	505	391	NR	635	738	NR	765	16	NR	895	0	NR
380	0	NR	510	426	NR	640	675	NR	770	14	NR	900	0	NR
385	0	NR	515	456	NR	645	610	NR	775	12	NR	905	0	NR
390	0	NR	520	480	NR	650	547	NR	780	10	NR	910	0	NR
395	0	NR	525	500	NR	655	488	NR	785	9	NR	915	0	NR
400	0	NR	530	517	NR	660	429	NR	790	7	NR	920	0	NR
405	2	NR	535	538	NR	665	378	NR	795	6	NR	925	0	NR
410	4	NR	540	558	NR	670	328	NR	800	5	NR	930	0	NR
415	9	NR	545	584	NR	675	285	NR	805	5	NR	935	0	NR
420	16	NR	550	611	NR	680	247	NR	810	4	NR	940	0	NR
425	31	NR	555	646	NR	685	212	NR	815	3	NR	945	0	NR
430	56	NR	560	687	NR	690	183	NR	820	3	NR	950	0	NR
435	101	NR	565	731	NR	695	156	NR	825	3	NR	955	0	NR
440	178	NR	570	780	NR	700	133	NR	830	2	NR	960	0	NR
445	323	NR	575	832	NR	705	114	NR	835	2	NR	965	0	NR
450	566	NR	580	883	NR	710	96	NR	840	2	NR	970	0	NR
455	645	NR	585	927	NR	715	82	NR	845	1	NR	975	0	NR
460	457	NR	590	963	NR	720	70	NR	850	1	NR	980	0	NR
465	365	NR	595	985	NR	725	59	NR	855	1	NR	985	0	NR
470	317	NR	600	998	NR	730	50	NR	860	1	NR	990	0	NR
475	244	NR	605	994	NR	735	43	NR	865	1	NR	995	0	NR
480	218	NR	610	978	NR	740	36	NR	870	1	NR	1000	0	NR
485	233	NR	615	947	NR	745	31	NR	875	1	NR			

REPORT NUMBER: SP1-2407-157-7

Scotopic Flux vs. Wavelength



Scotopic Lumens: NR

S/P: 1.42

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	258	NR	620	908	NR	750	26	NR	880	1	NR
365	0	NR	495	297	NR	625	857	NR	755	22	NR	885	0	NR
370	0	NR	500	345	NR	630	801	NR	760	19	NR	890	0	NR
375	0	NR	505	391	NR	635	738	NR	765	16	NR	895	0	NR
380	0	NR	510	426	NR	640	675	NR	770	14	NR	900	0	NR
385	0	NR	515	456	NR	645	610	NR	775	12	NR	905	0	NR
390	0	NR	520	480	NR	650	547	NR	780	10	NR	910	0	NR
395	0	NR	525	500	NR	655	488	NR	785	9	NR	915	0	NR
400	0	NR	530	517	NR	660	429	NR	790	7	NR	920	0	NR
405	2	NR	535	538	NR	665	378	NR	795	6	NR	925	0	NR
410	4	NR	540	558	NR	670	328	NR	800	5	NR	930	0	NR
415	9	NR	545	584	NR	675	285	NR	805	5	NR	935	0	NR
420	16	NR	550	611	NR	680	247	NR	810	4	NR	940	0	NR
425	31	NR	555	646	NR	685	212	NR	815	3	NR	945	0	NR
430	56	NR	560	687	NR	690	183	NR	820	3	NR	950	0	NR
435	101	NR	565	731	NR	695	156	NR	825	3	NR	955	0	NR
440	178	NR	570	780	NR	700	133	NR	830	2	NR	960	0	NR
445	323	NR	575	832	NR	705	114	NR	835	2	NR	965	0	NR
450	566	NR	580	883	NR	710	96	NR	840	2	NR	970	0	NR
455	645	NR	585	927	NR	715	82	NR	845	1	NR	975	0	NR
460	457	NR	590	963	NR	720	70	NR	850	1	NR	980	0	NR
465	365	NR	595	985	NR	725	59	NR	855	1	NR	985	0	NR
470	317	NR	600	998	NR	730	50	NR	860	1	NR	990	0	NR
475	244	NR	605	994	NR	735	43	NR	865	1	NR	995	0	NR
480	218	NR	610	978	NR	740	36	NR	870	1	NR	1000	0	NR
485	233	NR	615	947	NR	745	31	NR	875	1	NR			

REPORT NUMBER: SP1-2407-157-7

Melanopic Flux vs. Wavelength



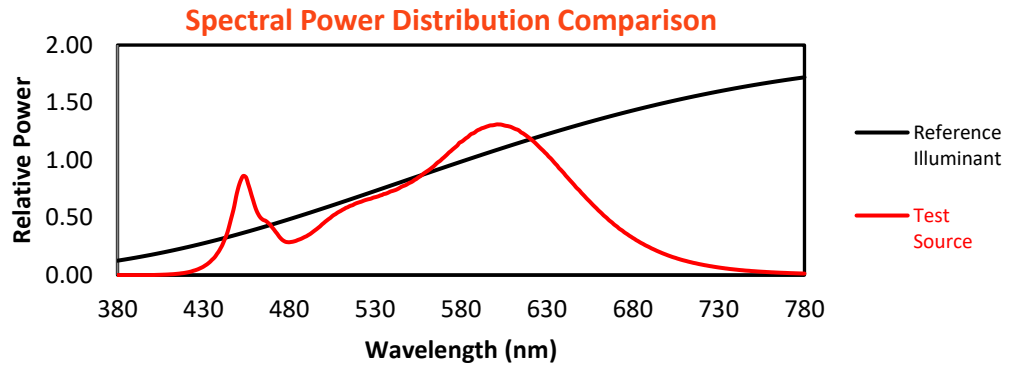
Melanopic Lumens: NR

M/P: 2.79

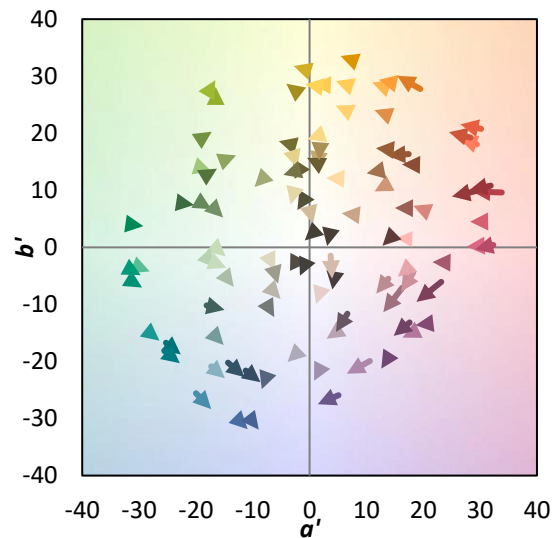
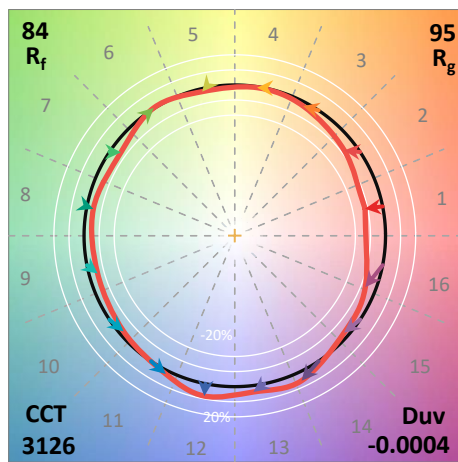
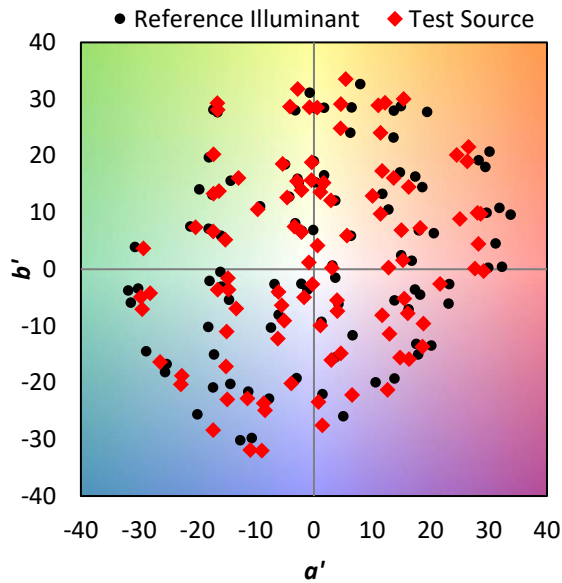
λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)
360	0	NR	490	258	NR	620	908	NR	750	26	NR	880	1	NR
365	0	NR	495	297	NR	625	857	NR	755	22	NR	885	0	NR
370	0	NR	500	345	NR	630	801	NR	760	19	NR	890	0	NR
375	0	NR	505	391	NR	635	738	NR	765	16	NR	895	0	NR
380	0	NR	510	426	NR	640	675	NR	770	14	NR	900	0	NR
385	0	NR	515	456	NR	645	610	NR	775	12	NR	905	0	NR
390	0	NR	520	480	NR	650	547	NR	780	10	NR	910	0	NR
395	0	NR	525	500	NR	655	488	NR	785	9	NR	915	0	NR
400	0	NR	530	517	NR	660	429	NR	790	7	NR	920	0	NR
405	2	NR	535	538	NR	665	378	NR	795	6	NR	925	0	NR
410	4	NR	540	558	NR	670	328	NR	800	5	NR	930	0	NR
415	9	NR	545	584	NR	675	285	NR	805	5	NR	935	0	NR
420	16	NR	550	611	NR	680	247	NR	810	4	NR	940	0	NR
425	31	NR	555	646	NR	685	212	NR	815	3	NR	945	0	NR
430	56	NR	560	687	NR	690	183	NR	820	3	NR	950	0	NR
435	101	NR	565	731	NR	695	156	NR	825	3	NR	955	0	NR
440	178	NR	570	780	NR	700	133	NR	830	2	NR	960	0	NR
445	323	NR	575	832	NR	705	114	NR	835	2	NR	965	0	NR
450	566	NR	580	883	NR	710	96	NR	840	2	NR	970	0	NR
455	645	NR	585	927	NR	715	82	NR	845	1	NR	975	0	NR
460	457	NR	590	963	NR	720	70	NR	850	1	NR	980	0	NR
465	365	NR	595	985	NR	725	59	NR	855	1	NR	985	0	NR
470	317	NR	600	998	NR	730	50	NR	860	1	NR	990	0	NR
475	244	NR	605	994	NR	735	43	NR	865	1	NR	995	0	NR
480	218	NR	610	978	NR	740	36	NR	870	1	NR	1000	0	NR
485	233	NR	615	947	NR	745	31	NR	875	1	NR			

**Summary**

$R_f = 84.4$   
 $R_g = 94.7$   
 $CIE R_a = 82.6$   
 $R_9 = 5.1$



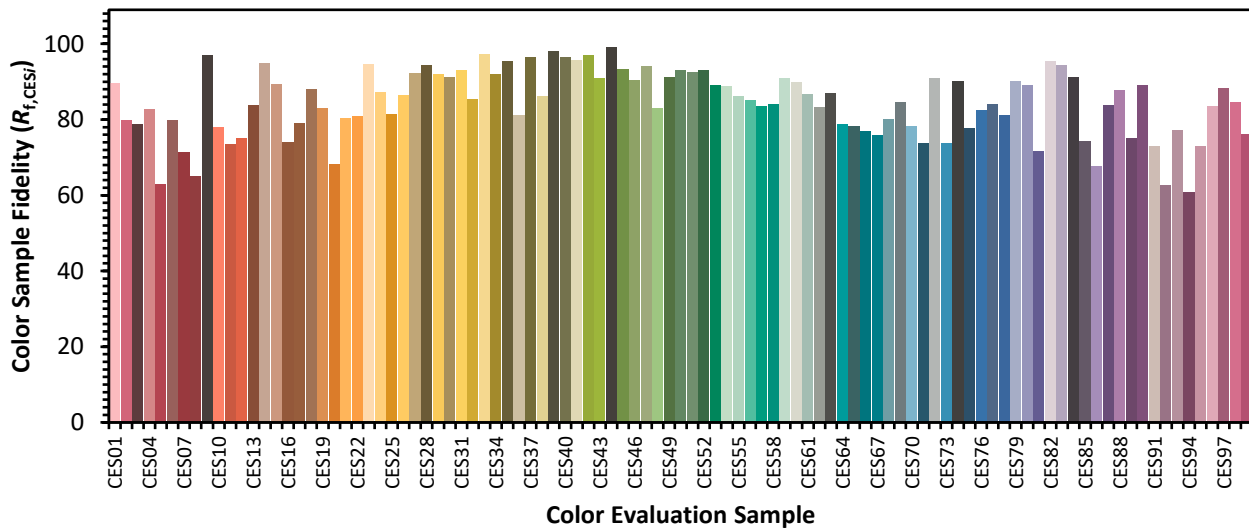
**Color Vector Graphics**





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

CES01 = 86	CES26 = 86	CES51 = 93	CES76 = 82
CES02 = 63	CES27 = 92	CES52 = 93	CES77 = 84
CES03 = 31	CES28 = 94	CES53 = 89	CES78 = 81
CES04 = 70	CES29 = 92	CES54 = 89	CES79 = 90
CES05 = 49	CES30 = 91	CES55 = 86	CES80 = 89
CES06 = 51	CES31 = 93	CES56 = 85	CES81 = 72
CES07 = 42	CES32 = 85	CES57 = 83	CES82 = 95
CES08 = 41	CES33 = 97	CES58 = 84	CES83 = 94
CES09 = 29	CES34 = 92	CES59 = 91	CES84 = 91
CES10 = 76	CES35 = 96	CES60 = 90	CES85 = 74
CES11 = 59	CES36 = 81	CES61 = 87	CES86 = 68
CES12 = 65	CES37 = 96	CES62 = 83	CES87 = 84
CES13 = 43	CES38 = 86	CES63 = 87	CES88 = 88
CES14 = 74	CES39 = 98	CES64 = 79	CES89 = 75
CES15 = 71	CES40 = 96	CES65 = 78	CES90 = 89
CES16 = 47	CES41 = 96	CES66 = 77	CES91 = 73
CES17 = 50	CES42 = 97	CES67 = 76	CES92 = 63
CES18 = 56	CES43 = 91	CES68 = 80	CES93 = 77
CES19 = 72	CES44 = 99	CES69 = 85	CES94 = 61
CES20 = 66	CES45 = 93	CES70 = 78	CES95 = 73
CES21 = 87	CES46 = 90	CES71 = 74	CES96 = 84
CES22 = 79	CES47 = 94	CES72 = 91	CES97 = 88
CES23 = 92	CES48 = 83	CES73 = 74	CES98 = 85
CES24 = 91	CES49 = 91	CES74 = 90	CES99 = 76
CES25 = 72	CES50 = 93	CES75 = 78	



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)