

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: P870637

Luminaire Tested: **EMM2-HTN-SA2A-830-U-T2R**

Issue Date: 09/05/2024



**Test Information**

Test Method: LM-79-08  
Report Number: P870637  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 09/05/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: EMM2-HTN-SA2A-830-U-T2R  
Description: EPIC MODERN TALL HOUSING DISCRETE LED ARRAYS 70W 80CRI 3000K  
FIXTURE w/ TYPE II ROADWAY DISTRIBUTION OPTIC  
Light Source: (20) 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

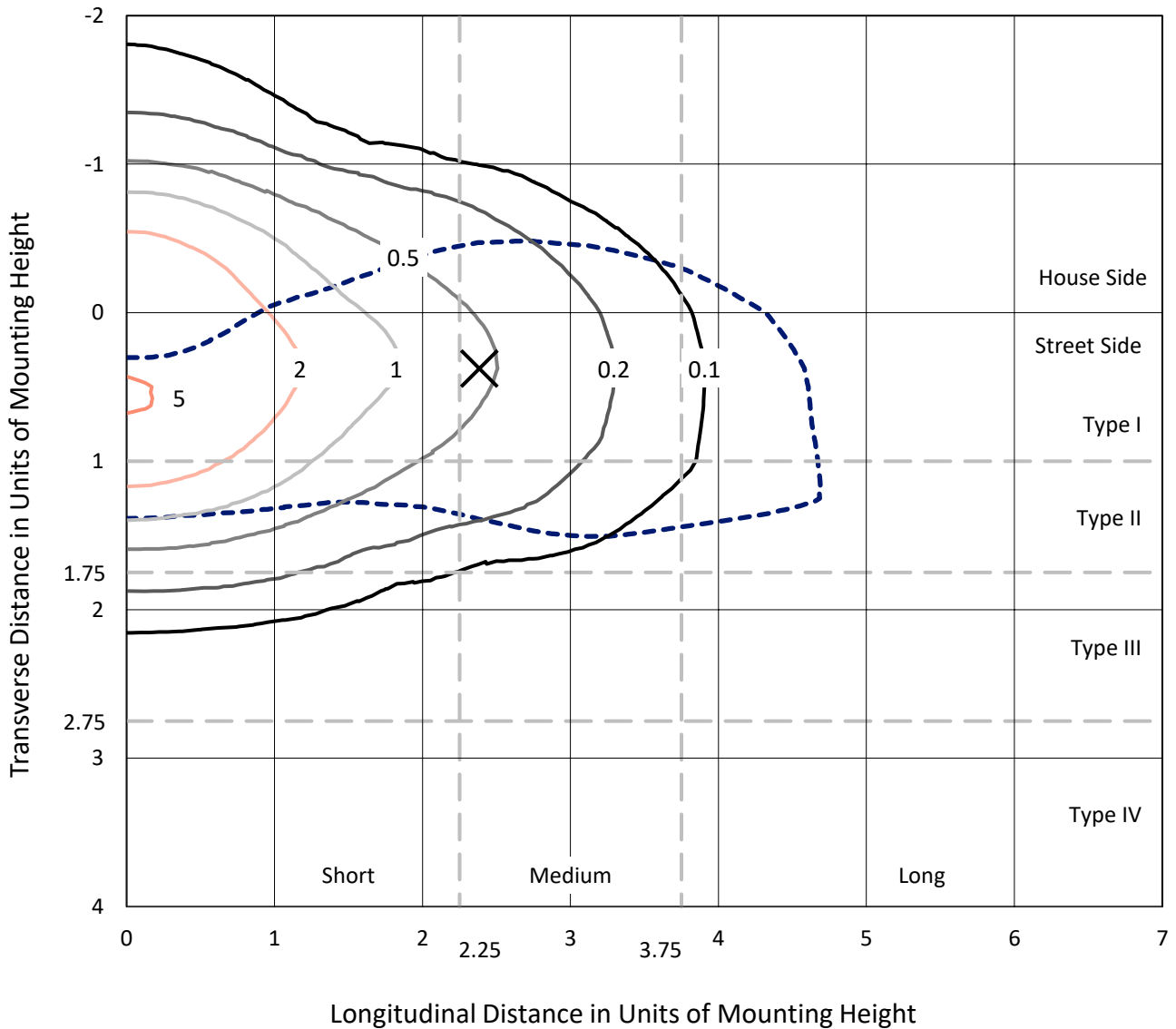
Lumens per Lamp: N/A  
Luminaire Lumens: 8203.5 lumens  
Efficiency: N/A  
Efficacy: 134.5 lumens/watt  
Luminous Opening: Rectangular (W 0.67' x L: 0.33' x H: 0')  
IES Classification: Type II - Medium  
BUG Rating: B2 - U0 - G2

Input Watts (W): 61  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: 0.99  
Total Harmonic Distortion (THDi): 9.89%  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT

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### Iso-Footcandle Lines of Horizontal Illumination

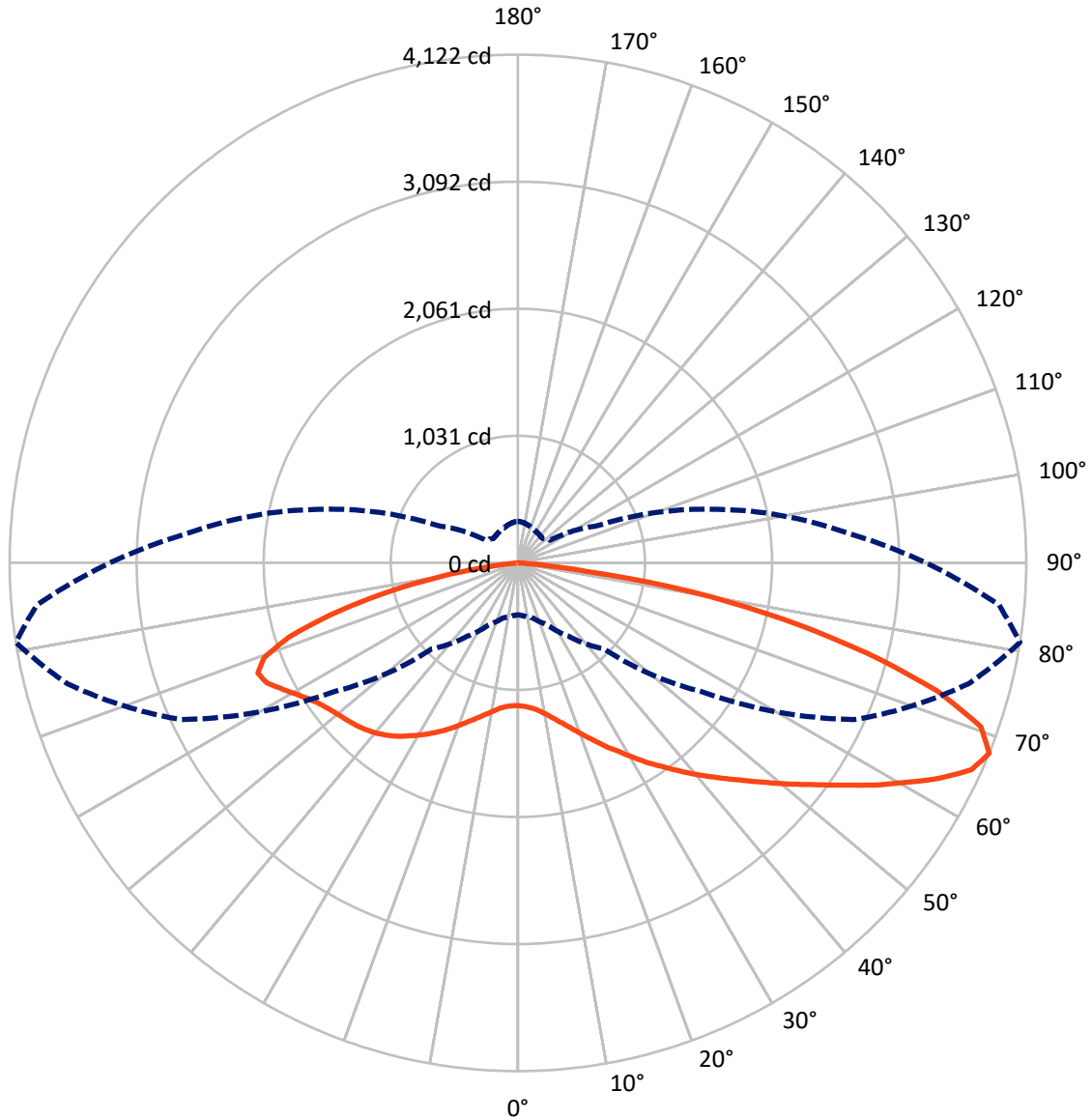
✕ Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 5.2 fc  
 Type II - Medium - N/A

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### Luminous Intensity Polar Plot



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

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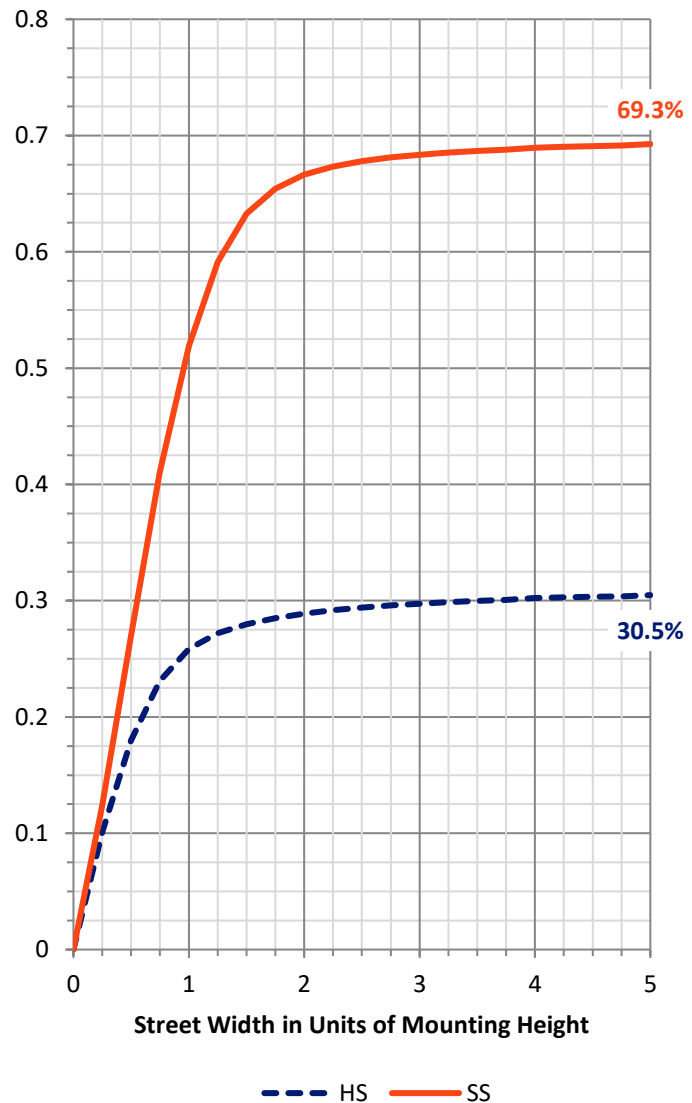
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2513.7	0.0	2513.7
	% Fixture	30.6	0.0	30.6
<b>Street Side</b>	Lumens	5689.7	0.0	5689.7
	% Fixture	69.4	0.0	69.4
<b>Total</b>	Lumens	8203.5	0.0	8203.5
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	118.1	1.4
10°-20°	419.3	5.1
20°-30°	835.0	10.2
30°-40°	1311.8	16.0
40°-50°	1626.9	19.8
50°-60°	1590.4	19.4
60°-70°	1337.4	16.3
70°-80°	849.8	10.4
80°-90°	114.7	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°	8203.5	100.0
0°-180°	8203.5	100.0



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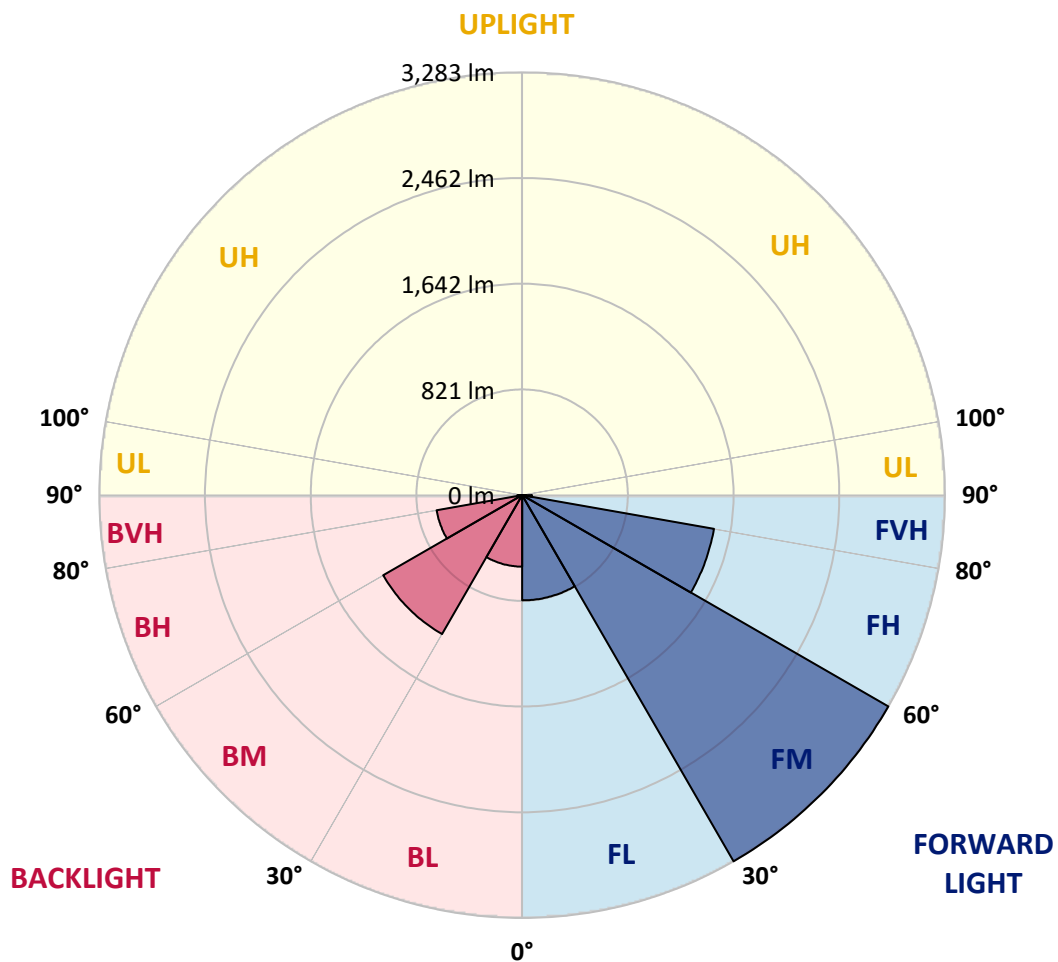
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	817.1	10.0			
FM (30°-60°)	3283.3	40.0			
FH (60°-80°)	1512.5	18.4			G1/1800
FVH (80°-90°)	76.9	0.9			G1/100
BL (0°-30°)	555.2	6.8	B2/1000		
BM (30°-60°)	1245.9	15.2	B2/2500		
BH (60°-80°)	674.8	8.2	B2/1000		G2/1000
BVH (80°-90°)	37.9	0.5			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 II Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	81°	85°
0°	1158.2	1158.2	1158.2	1158.2	1158.2	1158.2	1158.2	1158.2	1158.2	1158.2	1158.2
2.5°	1198.9	1197.2	1197.2	1184.2	1184.2	1181.0	1182.6	1172.8	1167.9	1166.3	1164.7
5°	1285.1	1285.1	1275.3	1267.2	1250.9	1236.3	1223.3	1203.7	1189.1	1182.6	1177.7
7.5°	1415.2	1405.4	1402.2	1377.8	1343.6	1314.3	1288.3	1246.0	1218.4	1208.6	1202.1
10°	1574.6	1561.6	1537.2	1509.5	1465.6	1421.7	1369.7	1312.7	1267.2	1247.7	1239.5
12.5°	1738.9	1721.0	1686.9	1660.8	1603.9	1537.2	1464.0	1385.9	1322.5	1294.8	1280.2
15°	1919.5	1909.7	1869.0	1817.0	1750.3	1655.9	1564.9	1468.9	1387.5	1348.5	1324.1
17.5°	2114.7	2100.0	2056.1	1992.7	1898.3	1786.1	1680.3	1556.7	1462.4	1411.9	1384.3
20°	2306.6	2303.4	2238.3	2178.1	2067.5	1927.6	1791.0	1660.8	1542.1	1483.5	1447.7
22.5°	2521.3	2500.2	2443.2	2358.7	2226.9	2098.4	1937.4	1768.2	1628.3	1560.0	1519.3
25°	2744.2	2742.6	2672.6	2568.5	2414.0	2251.3	2077.2	1890.2	1730.8	1647.8	1594.1
27.5°	3020.7	2999.6	2910.1	2791.4	2612.4	2425.4	2223.6	2017.1	1828.4	1729.1	1664.1
30°	3263.1	3256.6	3155.7	3022.3	2822.3	2599.4	2381.4	2160.2	1943.9	1826.7	1755.2
32.5°	3459.9	3451.8	3365.6	3232.2	3017.5	2786.5	2536.0	2295.2	2059.4	1932.5	1838.1
35°	3624.2	3611.2	3521.7	3388.3	3202.9	2968.7	2701.9	2436.7	2186.2	2031.7	1942.2
37.5°	3689.3	3677.9	3604.7	3494.1	3323.3	3108.6	2851.5	2592.9	2313.1	2143.9	2043.1
40°	3664.9	3658.4	3606.3	3529.9	3399.7	3220.8	2994.7	2755.6	2456.3	2262.7	2142.3
42.5°	3549.4	3549.4	3516.8	3477.8	3412.7	3284.2	3121.6	2911.7	2594.5	2381.4	2236.7
45°	3386.7	3380.2	3368.8	3354.2	3344.4	3295.6	3204.5	3046.7	2747.4	2511.6	2350.5
47.5°	3170.4	3175.2	3167.1	3173.6	3214.3	3245.2	3240.3	3172.0	2903.6	2654.7	2462.8
50°	2830.4	2853.2	2879.2	2955.6	3038.6	3124.8	3204.5	3261.5	3087.4	2817.4	2592.9
52.5°	2409.1	2418.8	2488.8	2669.4	2846.7	2960.5	3111.8	3302.1	3250.1	2986.6	2745.8
55°	1890.2	1908.1	2013.8	2269.2	2584.8	2802.7	2980.0	3284.2	3416.0	3180.1	2924.7
57.5°	1355.0	1366.4	1535.6	1799.1	2210.6	2576.6	2830.4	3212.7	3549.4	3399.7	3108.6
60°	963.0	984.1	1093.1	1350.1	1745.4	2264.3	2693.8	3108.6	3673.0	3614.4	3349.3
62.5°	710.9	722.2	798.7	985.8	1311.1	1838.1	2516.4	3032.1	3754.3	3845.4	3590.0
65°	535.2	540.1	592.1	720.6	980.9	1355.0	2236.7	3017.5	3799.9	4042.3	3803.1
67.5°	421.3	429.4	462.0	549.8	730.4	985.8	1821.9	3007.7	3783.6	4122.0	3915.4
70°	354.6	356.2	380.6	429.4	546.6	709.2	1361.5	2861.3	3692.5	3982.1	3811.3
72.5°	307.4	307.4	318.8	357.9	439.2	536.8	927.2	2511.6	3461.5	3557.5	3450.2
75°	248.9	247.3	266.8	304.2	353.0	413.2	623.0	1901.6	2976.8	2928.0	2840.2
77.5°	216.3	214.7	231.0	263.5	291.2	330.2	426.2	1234.6	2342.4	2196.0	2140.7
80°	185.4	180.6	193.6	224.5	239.1	257.0	294.4	719.0	1530.7	1439.6	1372.9
82.5°	139.9	128.5	125.3	151.3	161.0	149.7	149.7	252.1	556.3	561.2	518.9
85°	11.4	13.0	16.3	19.5	27.7	30.9	32.5	53.7	83.0	79.7	81.3
87.5°	1.6	1.6	1.6	3.3	3.3	4.9	4.9	4.9	6.5	6.5	6.5
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°	1158.2	1158.2	1158.2	1158.2	1158.2	1158.2	1158.2	1158.2	1158.2	1158.2	1158.2
2.5°	1163.1	1159.8	1156.6	1156.6	1156.6	1153.3	1151.7	1151.7	1150.1	1145.2	1143.5
5°	1174.5	1169.6	1164.7	1164.7	1164.7	1163.1	1161.4	1163.1	1161.4	1156.6	1154.9
7.5°	1197.2	1190.7	1184.2	1184.2	1187.5	1185.8	1185.8	1187.5	1185.8	1181.0	1179.3
10°	1229.8	1220.0	1216.7	1216.7	1220.0	1218.4	1216.7	1216.7	1215.1	1207.0	1210.2
12.5°	1265.5	1255.8	1252.5	1254.2	1252.5	1249.3	1250.9	1246.0	1244.4	1231.4	1229.8
15°	1311.1	1299.7	1293.2	1294.8	1289.9	1283.4	1276.9	1273.7	1267.2	1255.8	1252.5
17.5°	1363.1	1345.3	1337.1	1337.1	1327.4	1314.3	1304.6	1294.8	1285.1	1272.1	1268.8
20°	1413.6	1397.3	1384.3	1381.0	1361.5	1340.4	1322.5	1306.2	1294.8	1280.2	1276.9
22.5°	1477.0	1454.2	1436.3	1421.7	1392.4	1358.3	1330.6	1307.8	1291.6	1275.3	1270.4
25°	1543.7	1511.2	1481.9	1454.2	1413.6	1364.8	1325.7	1293.2	1272.1	1254.2	1250.9
27.5°	1610.4	1568.1	1525.8	1481.9	1420.1	1356.6	1301.3	1262.3	1234.6	1211.9	1208.6
30°	1682.0	1629.9	1563.2	1499.8	1418.5	1335.5	1265.5	1210.2	1177.7	1151.7	1148.4
32.5°	1755.2	1690.1	1599.0	1512.8	1410.3	1304.6	1213.5	1154.9	1114.3	1085.0	1076.9
35°	1836.5	1756.8	1631.5	1517.7	1387.5	1259.0	1158.2	1085.0	1037.8	1008.5	1002.0
37.5°	1919.5	1818.6	1652.7	1514.4	1355.0	1205.4	1086.6	1011.8	956.5	915.8	909.3
40°	2004.1	1875.5	1665.7	1498.2	1309.5	1138.7	1019.9	928.8	849.1	811.7	793.8
42.5°	2082.1	1927.6	1672.2	1475.4	1259.0	1068.7	932.1	813.3	738.5	697.8	706.0
45°	2163.5	1976.4	1673.8	1447.7	1192.3	979.3	821.5	710.9	636.0	605.1	601.9
47.5°	2233.4	2017.1	1670.6	1408.7	1117.5	876.8	706.0	600.2	544.9	515.7	512.4
50°	2326.1	2062.6	1665.7	1363.1	1019.9	759.7	598.6	512.4	462.0	439.2	437.6
52.5°	2418.8	2113.0	1662.5	1299.7	917.4	649.0	501.0	432.7	398.5	387.1	383.9
55°	2540.8	2174.8	1664.1	1226.5	800.3	535.2	424.6	377.4	359.5	354.6	354.6
57.5°	2680.7	2254.6	1673.8	1145.2	678.3	442.5	369.3	348.1	346.5	349.7	351.4
60°	2849.9	2360.3	1693.4	1060.6	566.1	374.1	336.7	335.1	340.0	351.4	354.6
62.5°	3040.2	2475.8	1717.8	950.0	458.7	328.6	318.8	325.3	331.8	344.9	346.5
65°	3207.8	2605.9	1732.4	844.2	383.9	302.6	307.4	310.7	327.0	344.9	344.9
67.5°	3308.6	2700.3	1677.1	710.9	320.5	279.8	289.5	299.3	317.2	333.5	336.7
70°	3274.5	2669.4	1488.4	551.4	271.7	258.6	270.0	284.7	302.6	322.1	331.8
72.5°	3037.0	2449.8	1208.6	401.8	235.9	239.1	253.8	273.3	289.5	310.7	323.7
75°	2539.2	2044.7	871.9	289.5	206.6	219.6	242.4	258.6	270.0	274.9	276.5
77.5°	1927.6	1503.0	593.7	216.3	178.9	196.8	221.2	239.1	242.4	245.6	248.9
80°	1259.0	956.5	335.1	151.3	136.6	161.0	180.6	200.1	193.6	203.3	206.6
82.5°	531.9	418.1	152.9	74.8	63.4	68.3	73.2	65.1	60.2	60.2	52.1
85°	69.9	53.7	22.8	9.8	8.1	4.9	4.9	4.9	3.3	3.3	3.3
87.5°	6.5	6.5	4.9	4.9	3.3	3.3	1.6	3.3	1.6	1.6	1.6
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

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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

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**Photopic Flux vs. Wavelength**



**Photopic Lumens: NR**

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			

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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**

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



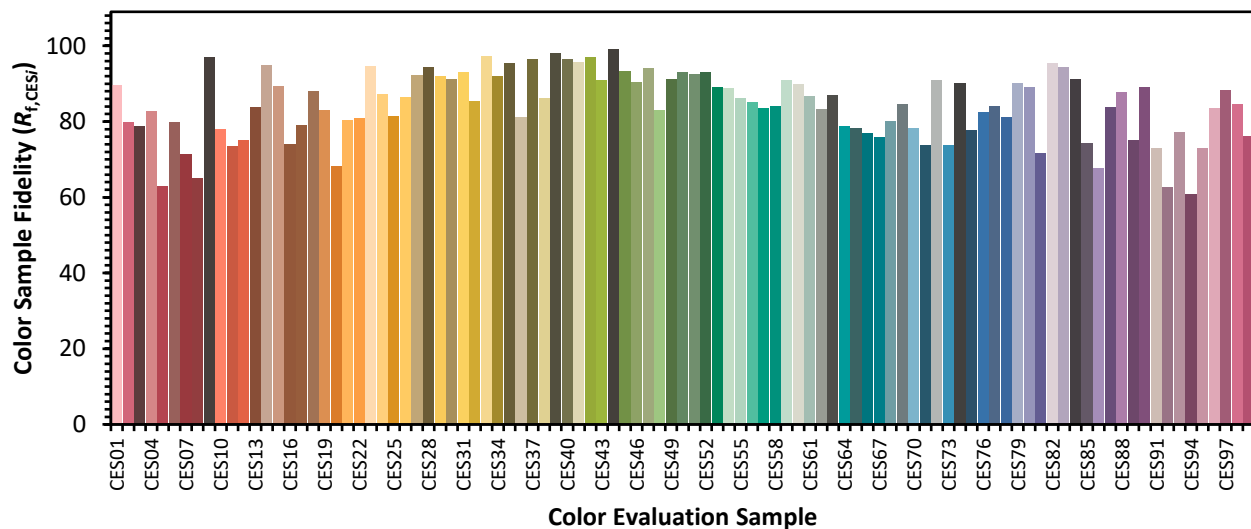
**Color Vector Graphics**





**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)