

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: P870602

Luminaire Tested: **EMM2-HTN-SA2A-830-U-T1**

Issue Date: 09/05/2024



**Test Information**

Test Method: LM-79-08  
Report Number: P870602  
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-T1  
Description: EPIC MODERN TALL HOUSING DISCRETE LED ARRAYS 70W 80CRI 3000K  
FIXTURE w/ TYPE 1 DISTRIBUTION OPTIC  
Light Source: (20) 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

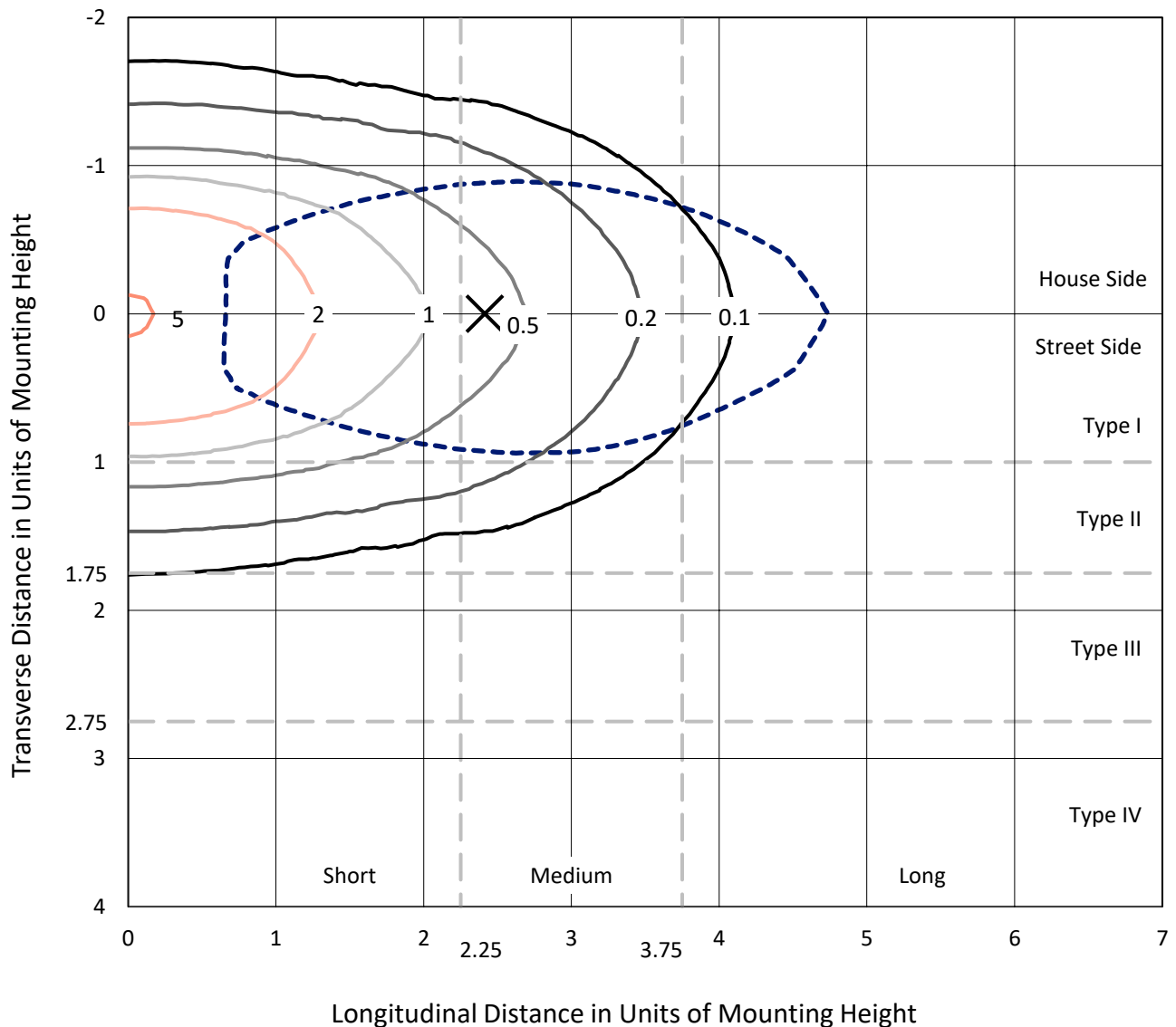
Lumens per Lamp: N/A  
Luminaire Lumens: 8471.8 lumens  
Efficiency: N/A  
Efficacy: 138.9 lumens/watt  
Luminous Opening: Rectangular (W 0.67' x L: 0.33' x H: 0')  
IES Classification: Type I - Short  
BUG Rating: B3 - U0 - G3

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

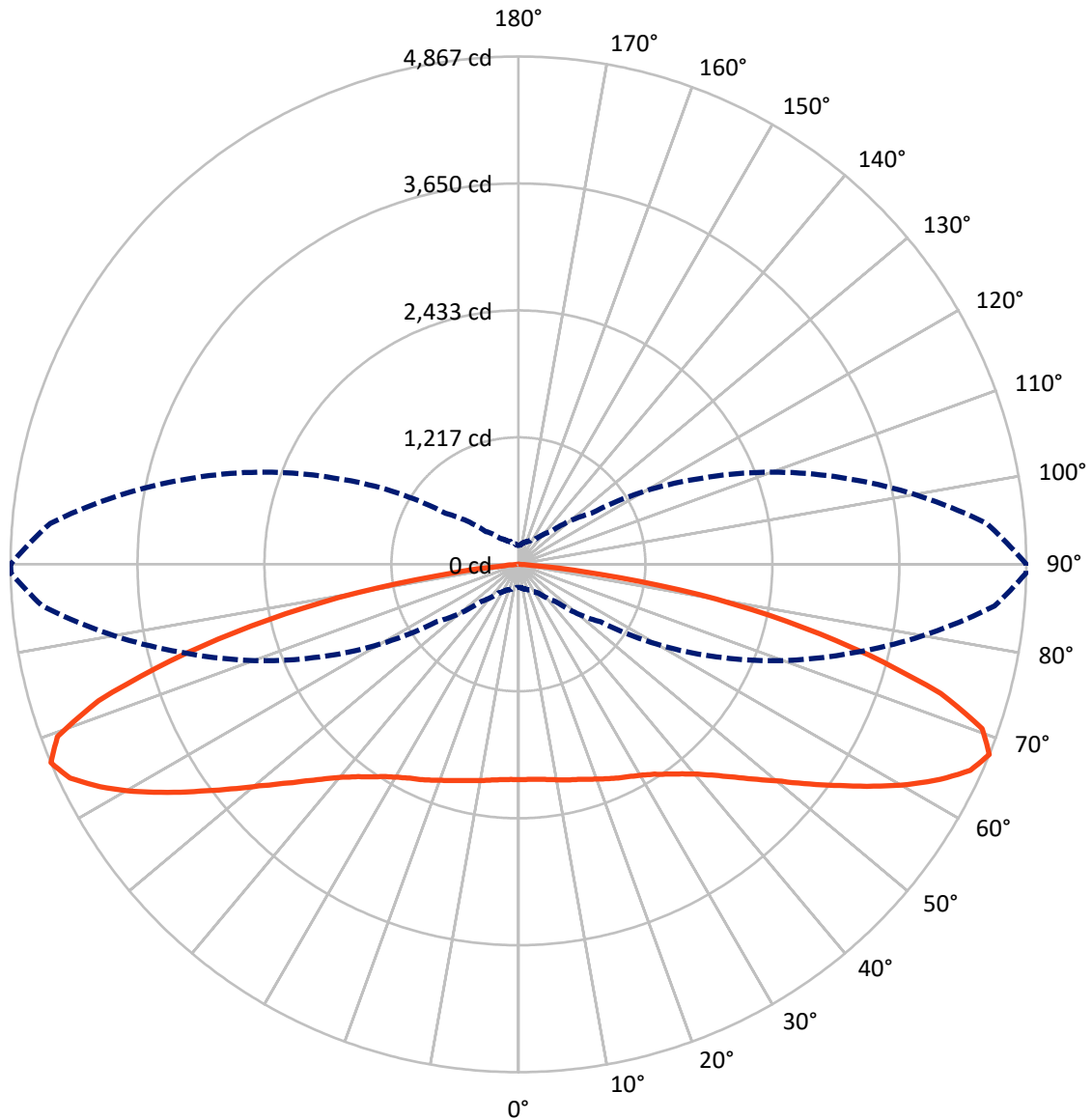
× Max cd  
 - - - 1/2 Max cd



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

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### Luminous Intensity Polar Plot



— Vertical Plane Through 90-Deg Lateral    - - - Horizontal Cone Through 67.5-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	4160.7	0.0	4160.7
	% Fixture	49.1	0.0	49.1
<b>Street Side</b>	Lumens	4311.1	0.0	4311.1
	% Fixture	50.9	0.0	50.9
<b>Total</b>	Lumens	8471.8	0.0	8471.8
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	197.8	2.3
10°-20°	594.5	7.0
20°-30°	983.8	11.6
30°-40°	1304.6	15.4
40°-50°	1470.9	17.4
50°-60°	1507.9	17.8
60°-70°	1424.2	16.8
70°-80°	873.9	10.3
80°-90°	114.3	1.3
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°	8471.8	100.0
0°-180°	8471.8	100.0



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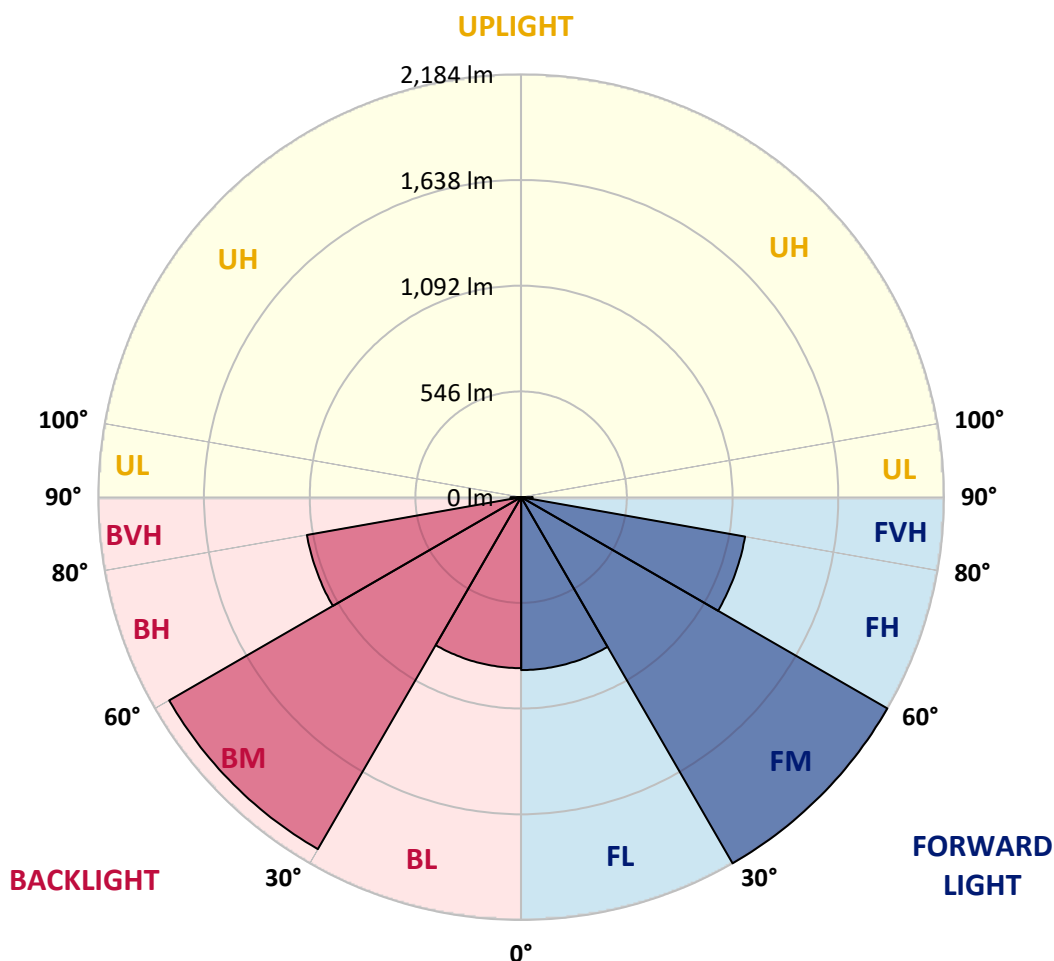
CATALOG NUMBER: EMM2-HTN-SA2A-830-U-T1

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	893.2	10.5			
FM (30°-60°)	2183.9	25.8			
FH (60°-80°)	1174.5	13.9			G1/1800
FVH (80°-90°)	59.6	0.7			G1/100
BL (0°-30°)	883.0	10.4	B2/1000		
BM (30°-60°)	2099.4	24.8	B2/2500		
BH (60°-80°)	1123.5	13.3	B3/2500		G3/2500
BVH (80°-90°)	54.8	0.6			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G3**

Type I Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	89°
0°	2064.1	2064.1	2064.1	2064.1	2064.1	2064.1	2064.1	2064.1	2064.1	2064.1	2064.1
2.5°	2072.3	2072.3	2067.4	2059.3	2057.6	2059.3	2069.0	2064.1	2064.1	2065.8	2064.1
5°	2072.3	2072.3	2069.0	2060.9	2060.9	2060.9	2072.3	2067.4	2069.0	2070.6	2070.6
7.5°	2075.5	2075.5	2072.3	2065.8	2065.8	2065.8	2082.0	2078.8	2078.8	2083.7	2080.4
10°	2083.7	2080.4	2077.2	2078.8	2073.9	2082.0	2090.2	2091.8	2098.3	2101.5	2099.9
12.5°	2083.7	2080.4	2072.3	2082.0	2082.0	2093.4	2104.8	2111.3	2119.4	2119.4	2119.4
15°	2073.9	2070.6	2064.1	2080.4	2086.9	2101.5	2117.8	2127.6	2142.2	2142.2	2140.6
17.5°	2062.5	2057.6	2054.4	2078.8	2093.4	2112.9	2137.3	2150.3	2166.6	2168.2	2165.0
20°	2041.4	2039.7	2041.4	2073.9	2099.9	2127.6	2156.9	2174.7	2195.9	2202.4	2197.5
22.5°	2018.6	2018.6	2025.1	2069.0	2109.7	2147.1	2186.1	2208.9	2230.0	2236.6	2230.0
25°	1987.7	1987.7	2000.7	2052.8	2112.9	2168.2	2213.8	2244.7	2264.2	2270.7	2267.5
27.5°	1940.5	1940.5	1955.2	2020.2	2103.2	2184.5	2243.1	2278.8	2300.0	2306.5	2303.2
30°	1873.8	1870.6	1890.1	1971.4	2085.3	2202.4	2277.2	2314.6	2342.3	2347.2	2342.3
32.5°	1768.1	1773.0	1802.3	1904.7	2056.0	2213.8	2317.9	2361.8	2392.7	2402.5	2399.2
35°	1639.6	1647.7	1688.4	1820.1	2000.7	2212.2	2360.2	2413.9	2454.5	2467.5	2465.9
37.5°	1486.7	1498.1	1548.5	1703.0	1917.7	2187.8	2399.2	2472.4	2526.1	2542.4	2545.6
40°	1319.2	1330.5	1395.6	1566.4	1805.5	2130.8	2422.0	2539.1	2610.7	2643.2	2648.1
42.5°	1141.9	1161.4	1239.5	1405.4	1670.5	2039.7	2422.0	2604.2	2692.0	2752.2	2757.1
45°	971.1	987.3	1081.7	1244.3	1525.7	1922.6	2394.3	2669.2	2802.6	2906.7	2903.5
47.5°	823.1	827.9	914.1	1078.4	1364.7	1789.2	2337.4	2727.8	2919.7	3058.0	3087.3
50°	670.2	681.5	754.7	917.4	1200.4	1642.9	2241.4	2765.2	3040.1	3249.9	3287.3
52.5°	562.8	564.4	619.7	769.4	1029.6	1465.6	2125.9	2775.0	3155.6	3458.1	3503.7
55°	458.7	466.8	514.0	626.2	865.3	1291.5	1976.3	2760.3	3261.3	3659.8	3744.4
57.5°	393.6	395.3	429.4	518.9	730.3	1106.1	1810.4	2711.5	3349.1	3882.7	3990.0
60°	338.3	338.3	364.4	432.7	590.5	925.5	1615.2	2625.3	3397.9	4121.8	4277.9
62.5°	294.4	296.0	318.8	369.2	491.2	764.5	1400.5	2490.3	3415.8	4352.7	4531.7
65°	266.8	268.4	281.4	315.6	405.0	621.4	1180.9	2326.0	3391.4	4525.2	4757.8
67.5°	221.2	222.8	245.6	271.6	336.7	499.4	959.7	2098.3	3292.2	4578.8	4863.5
70°	169.2	174.0	204.9	232.6	279.8	398.5	736.8	1797.4	3054.7	4396.7	4689.4
72.5°	141.5	143.1	165.9	196.8	234.2	312.3	559.5	1415.1	2693.6	3926.6	4251.9
75°	123.6	125.2	138.3	165.9	195.2	250.5	388.8	977.6	2148.7	3175.1	3472.8
77.5°	112.2	113.9	117.1	139.9	164.3	193.6	274.9	580.7	1516.0	2426.9	2583.0
80°	107.4	107.4	99.2	115.5	135.0	151.3	183.8	333.5	972.7	1636.3	1761.6
82.5°	76.4	74.8	68.3	71.6	83.0	83.0	94.3	138.3	372.5	691.3	749.9
85°	4.9	4.9	8.1	9.8	14.6	19.5	24.4	32.5	94.3	128.5	133.4
87.5°	1.6	1.6	1.6	1.6	1.6	3.3	3.3	3.3	4.9	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



REPORT NUMBER: P870602  
 CATALOG NUMBER: EMM2-HTN-SA2A-830-U-T1

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2064.1	2064.1	2064.1	2064.1	2064.1	2064.1	2064.1	2064.1	2064.1	2064.1	2064.1
2.5°	2062.5	2064.1	2064.1	2067.4	2070.6	2069.0	2067.4	2070.6	2065.8	2056.0	2054.4
5°	2069.0	2069.0	2067.4	2070.6	2073.9	2070.6	2067.4	2067.4	2064.1	2054.4	2052.8
7.5°	2082.0	2080.4	2080.4	2080.4	2080.4	2075.5	2070.6	2067.4	2062.5	2052.8	2047.9
10°	2099.9	2098.3	2096.7	2095.0	2086.9	2082.0	2073.9	2069.0	2062.5	2051.1	2047.9
12.5°	2119.4	2116.2	2112.9	2114.6	2098.3	2083.7	2075.5	2064.1	2059.3	2033.2	2028.4
15°	2139.0	2134.1	2132.5	2125.9	2109.7	2088.5	2072.3	2056.0	2039.7	2015.3	2007.2
17.5°	2165.0	2161.7	2152.0	2145.5	2122.7	2093.4	2069.0	2046.2	2025.1	1995.8	1990.9
20°	2195.9	2192.6	2182.9	2169.9	2140.6	2104.8	2070.6	2034.9	2008.8	1974.7	1966.5
22.5°	2230.0	2225.2	2217.0	2202.4	2165.0	2122.7	2075.5	2028.4	1989.3	1950.3	1945.4
25°	2265.8	2262.6	2254.4	2233.3	2192.6	2140.6	2075.5	2005.6	1956.8	1922.6	1908.0
27.5°	2300.0	2298.4	2288.6	2264.2	2221.9	2153.6	2060.9	1968.2	1903.1	1857.6	1847.8
30°	2343.9	2340.7	2329.3	2301.6	2254.4	2161.7	2031.6	1904.7	1823.4	1773.0	1758.3
32.5°	2397.6	2394.3	2378.1	2343.9	2293.5	2163.4	1989.3	1823.4	1716.0	1662.4	1644.5
35°	2469.2	2462.7	2441.5	2400.8	2330.9	2147.1	1914.5	1719.3	1587.5	1517.6	1493.2
37.5°	2547.2	2539.1	2511.4	2461.0	2356.9	2103.2	1808.8	1579.4	1429.8	1346.8	1328.9
40°	2643.2	2631.8	2589.5	2519.6	2366.7	2026.7	1690.0	1436.3	1276.9	1185.8	1164.6
42.5°	2763.6	2744.1	2675.7	2584.6	2347.2	1922.6	1548.5	1288.3	1106.1	1021.5	1016.6
45°	2908.3	2877.4	2775.0	2648.1	2304.9	1792.5	1398.9	1122.3	948.3	865.3	844.2
47.5°	3079.1	3041.7	2890.4	2696.9	2221.9	1659.1	1237.8	961.3	801.9	717.3	701.1
50°	3267.8	3232.0	3012.4	2724.5	2132.5	1503.0	1080.1	818.2	658.8	588.8	588.8
52.5°	3497.2	3415.8	3129.6	2727.8	1995.8	1330.5	928.8	678.3	553.0	491.2	478.2
55°	3741.1	3645.2	3235.3	2698.5	1854.3	1172.8	766.1	564.4	453.8	409.9	398.5
57.5°	4012.8	3866.4	3311.7	2639.9	1675.4	1000.4	639.2	465.2	382.2	346.5	341.6
60°	4286.1	4097.4	3357.3	2540.7	1485.1	840.9	531.9	388.8	328.6	302.5	297.7
62.5°	4539.8	4286.1	3360.5	2396.0	1299.6	701.1	435.9	335.1	291.2	271.6	271.6
65°	4759.4	4443.8	3305.2	2210.5	1063.8	562.8	359.5	283.0	253.7	232.6	227.7
67.5°	4866.7	4504.0	3207.6	1956.8	852.3	445.7	302.5	245.6	218.0	185.4	182.2
70°	4715.5	4330.0	2957.1	1631.5	658.8	354.6	252.1	209.8	182.2	154.5	151.3
72.5°	4232.4	3866.4	2552.1	1263.9	496.1	286.3	209.8	178.9	149.6	135.0	131.8
75°	3463.0	3215.8	2017.0	870.2	346.5	224.5	175.7	151.3	126.9	120.4	118.7
77.5°	2628.6	2391.1	1473.7	544.9	237.5	175.7	149.6	128.5	110.6	115.5	112.2
80°	1755.1	1646.1	979.2	309.1	159.4	128.5	113.9	94.3	84.6	97.6	94.3
82.5°	797.0	754.7	460.3	135.0	71.6	55.3	39.0	29.3	22.8	21.1	24.4
85°	133.4	117.1	32.5	14.6	8.1	4.9	3.3	3.3	1.6	1.6	1.6
87.5°	6.5	4.9	4.9	3.3	1.6	1.6	1.6	1.6	1.6	0.0	0.0
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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1121 Highway 74 South  
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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**

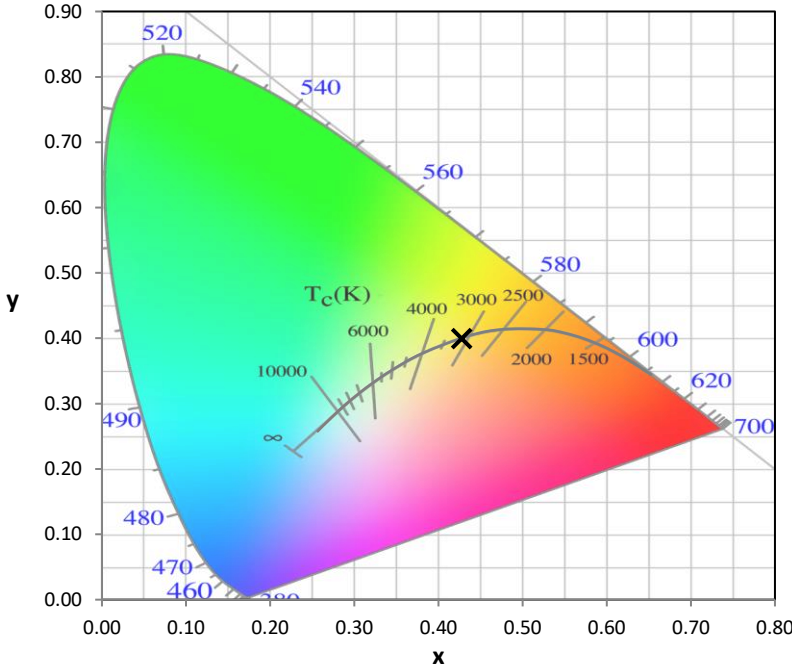
Stabilization Time: 22M  
 Operation Time: 1H 22M  
 Sphere Temperature (°C): 24.3

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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



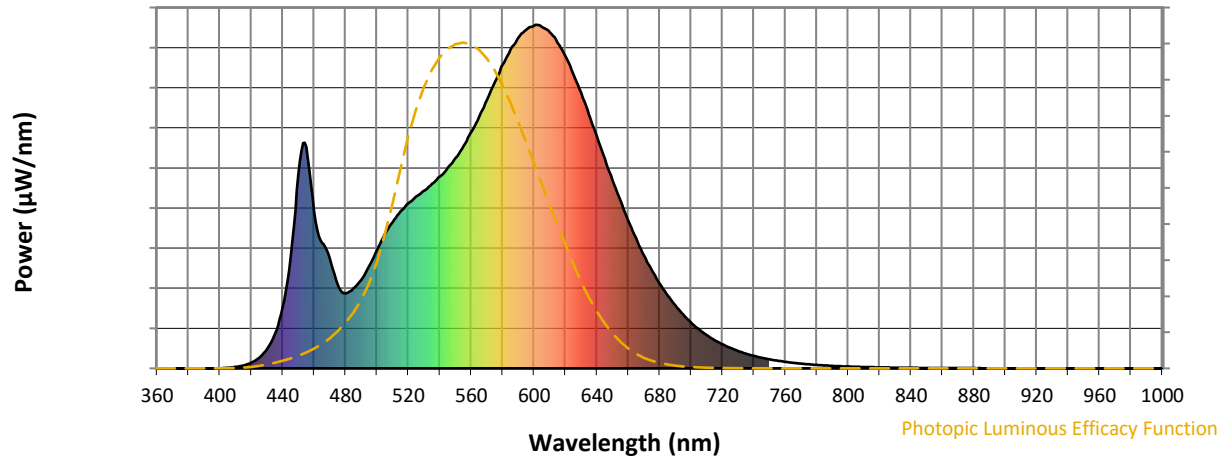
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 3000K 4-step quadrangle

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**Photopic Flux vs. Wavelength**



**Photopic Lumens: NR**

$\lambda$ (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			

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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)