

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: P870709

Luminaire Tested: **EMM2-HTN-SA2C-830-U-T2U**

Issue Date: 09/05/2024



**Test Information**

Test Method: LM-79-08  
Report Number: P870709  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 09/05/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: EMM2-HTN-SA2C-830-U-T2U  
Description: EPIC MODERN TALL HOUSING DISCRETE LED ARRAYS 120W 80CRI 3000K  
FITXURE w/ TYPE II URBAN DISTRIBUTION OPTIC  
Light Source: (20) 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

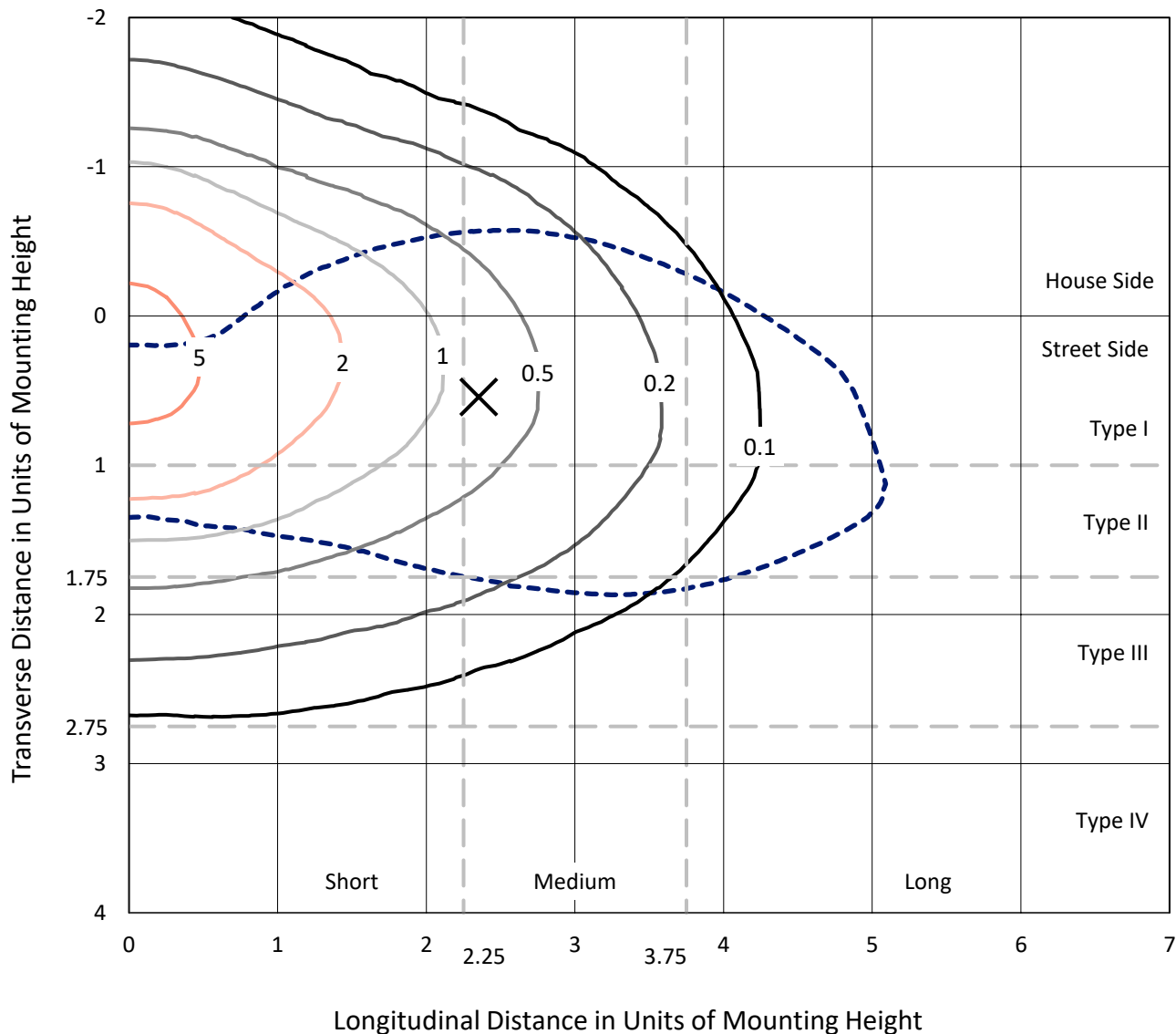
Lumens per Lamp: N/A  
Luminaire Lumens: 12109.4 lumens  
Efficiency: N/A  
Efficacy: 119.9 lumens/watt  
Luminous Opening: Rectangular (W 0.67' x L: 0.33' x H: 0')  
IES Classification: Type III - Medium  
BUG Rating: B3 - U0 - G3

Input Watts (W): 101  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: 0.99  
Total Harmonic Distortion (THDi): 9.45%  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT

REPORT NUMBER: P870709  
 CATALOG NUMBER: EMM2-HTN-SA2C-830-U-T2U

### Iso-Footcandle Lines of Horizontal Illumination

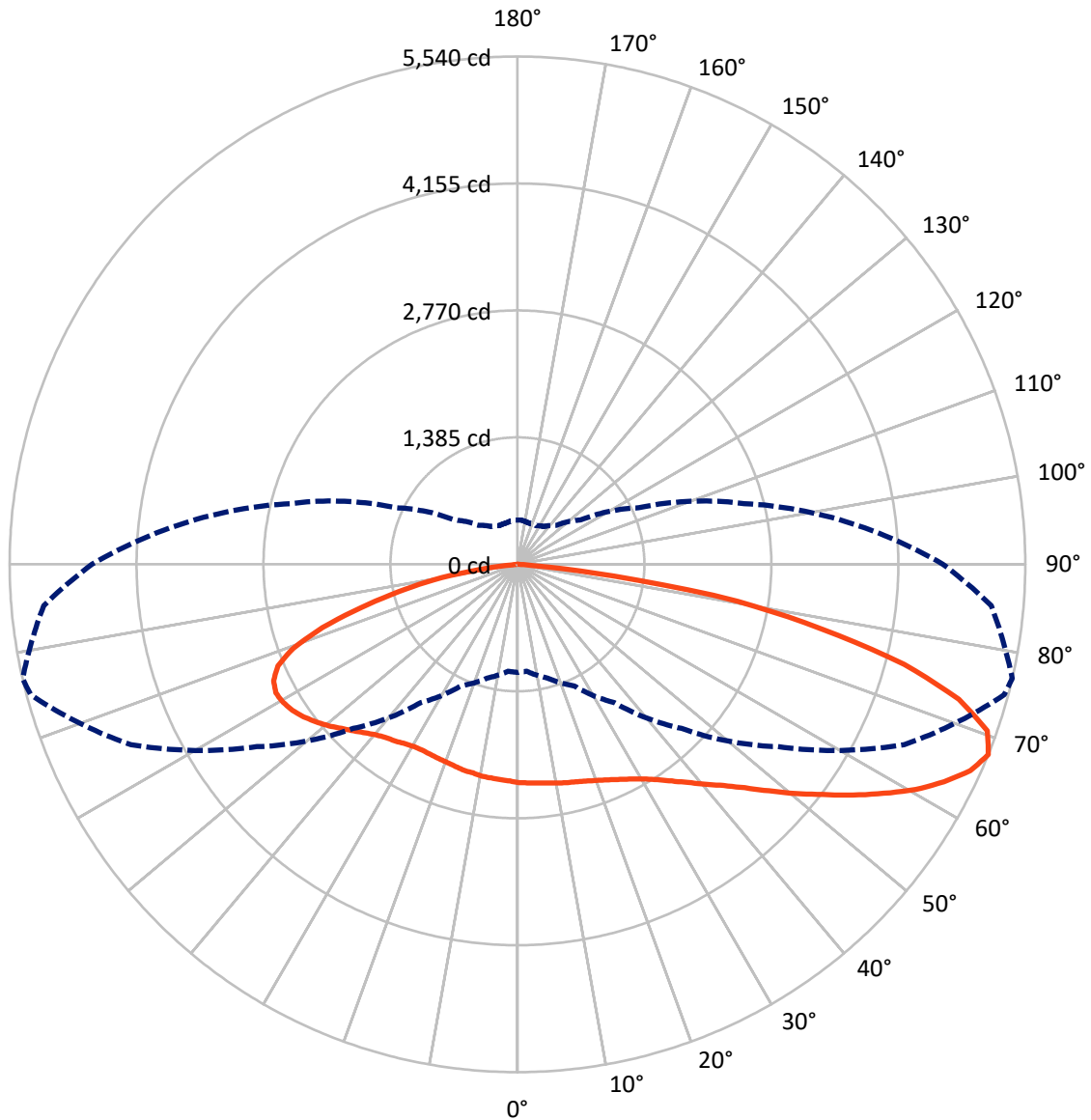
× Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 6.5 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	4026.8	0.0	4026.8
	% Fixture	33.3	0.0	33.3
<b>Street Side</b>	Lumens	8082.6	0.0	8082.6
	% Fixture	66.7	0.0	66.7
<b>Total</b>	Lumens	12109.4	0.0	12109.4
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	228.8	1.9
10°-20°	694.0	5.7
20°-30°	1170.0	9.7
30°-40°	1660.3	13.7
40°-50°	2100.7	17.3
50°-60°	2301.2	19.0
60°-70°	2224.5	18.4
70°-80°	1496.1	12.4
80°-90°	233.8	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°	12109.4	100.0
0°-180°	12109.4	100.0

**Coefficient of Utilization**



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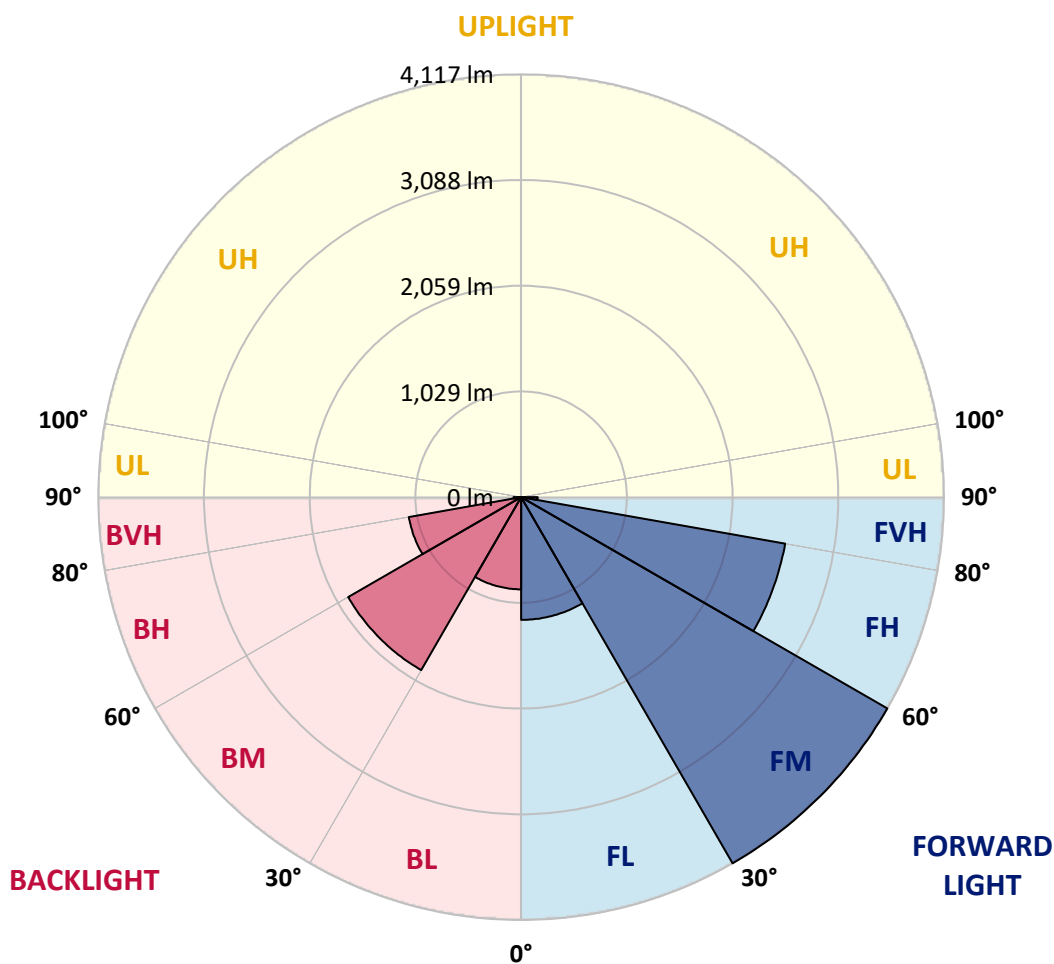
CATALOG NUMBER: EMM2-HTN-SA2C-830-U-T2U

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1195.2	9.9			
FM (30°-60°)	4117.4	34.0			
FH (60°-80°)	2610.0	21.6			G2/5000
FVH (80°-90°)	160.1	1.3			G2/225
BL (0°-30°)	897.7	7.4	B2/1000		
BM (30°-60°)	1944.8	16.1	B2/2500		
BH (60°-80°)	1110.6	9.2	B3/2500		G3/2500
BVH (80°-90°)	73.7	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 III Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	2380.8	2380.8	2380.8	2380.8	2380.8	2380.8	2380.8	2380.8	2380.8	2380.8	2380.8
2.5°	2433.5	2431.1	2419.2	2424.0	2409.6	2419.2	2404.8	2392.8	2390.4	2388.0	2390.4
5°	2510.2	2498.2	2486.2	2479.0	2467.1	2462.3	2438.3	2414.4	2400.0	2397.6	2392.8
7.5°	2598.8	2594.0	2577.3	2567.7	2534.1	2517.4	2483.8	2440.7	2419.2	2409.6	2397.6
10°	2689.8	2701.8	2680.2	2661.1	2622.8	2586.8	2529.3	2474.3	2431.1	2426.4	2400.0
12.5°	2802.4	2800.0	2785.6	2752.1	2706.6	2656.3	2586.8	2510.2	2452.7	2443.1	2404.8
15°	2903.0	2900.6	2881.4	2850.3	2790.4	2728.1	2634.7	2546.1	2474.3	2459.9	2414.4
17.5°	2996.4	2991.6	2979.6	2946.1	2871.9	2795.2	2704.2	2586.8	2500.6	2483.8	2421.6
20°	3077.9	3082.6	3068.3	3034.7	2965.3	2883.8	2768.9	2639.5	2534.1	2515.0	2443.1
22.5°	3166.5	3168.9	3161.7	3149.7	3061.1	2974.9	2850.3	2699.4	2572.5	2553.3	2467.1
25°	3259.9	3262.3	3267.1	3259.9	3159.3	3065.9	2934.1	2773.7	2625.2	2598.8	2500.6
27.5°	3367.7	3370.1	3379.6	3365.3	3257.5	3159.3	3027.6	2852.7	2680.2	2651.5	2529.3
30°	3489.8	3499.4	3492.2	3487.4	3362.9	3267.1	3121.0	2934.1	2752.1	2716.2	2579.6
32.5°	3635.9	3633.5	3619.2	3604.8	3477.9	3377.3	3226.4	3039.5	2840.7	2800.0	2661.1
35°	3741.3	3741.3	3719.8	3712.6	3595.2	3489.8	3341.3	3156.9	2941.3	2903.0	2747.3
37.5°	3806.0	3815.6	3798.8	3803.6	3691.0	3592.8	3456.3	3276.7	3051.5	3018.0	2852.7
40°	3829.9	3853.9	3868.3	3887.4	3774.9	3691.0	3578.5	3406.0	3192.8	3154.5	2979.6
42.5°	3834.7	3870.7	3921.0	3961.7	3834.7	3765.3	3695.8	3537.7	3331.7	3298.2	3118.6
45°	3810.8	3794.0	3916.2	3921.0	3868.3	3825.2	3798.8	3695.8	3532.9	3477.9	3291.0
47.5°	3628.7	3609.6	3643.1	3796.4	3827.6	3851.5	3904.2	3880.2	3734.1	3691.0	3489.8
50°	3334.1	3324.6	3458.7	3624.0	3727.0	3849.1	3990.4	4057.5	3956.9	3930.5	3741.3
52.5°	2847.9	2821.6	3094.6	3415.6	3595.2	3825.2	4050.3	4239.5	4208.4	4170.1	3956.9
55°	2538.9	2538.9	2723.4	3123.4	3427.6	3738.9	4088.6	4431.1	4486.2	4443.1	4203.6
57.5°	2208.4	2234.7	2426.4	2701.8	3185.6	3580.8	4083.8	4591.6	4754.5	4713.8	4464.7
60°	1925.8	1947.3	2057.5	2335.3	2900.6	3372.5	4031.1	4723.4	5003.6	4989.2	4694.6
62.5°	1638.3	1664.7	1753.3	2014.4	2524.6	3132.9	3921.0	4795.2	5238.3	5224.0	4927.0
65°	1408.4	1410.8	1499.4	1717.4	2148.5	2843.1	3727.0	4780.8	5420.4	5430.0	5123.4
67.5°	1178.4	1171.3	1286.2	1463.5	1841.9	2531.7	3468.3	4653.9	5497.0	5540.1	5188.0
70°	867.1	876.6	1037.1	1233.5	1556.9	2172.5	3106.6	4407.2	5372.5	5439.5	5039.5
72.5°	651.5	670.7	826.3	1029.9	1300.6	1813.2	2711.4	3978.5	5025.2	5034.7	4586.8
75°	529.3	534.1	673.1	855.1	1065.9	1453.9	2177.2	3322.2	4249.1	4359.3	3897.0
77.5°	450.3	445.5	512.6	689.8	859.9	1161.7	1640.7	2527.0	3336.5	3386.8	3051.5
80°	383.2	380.8	404.8	558.1	673.1	828.7	1123.4	1760.5	2380.8	2435.9	2167.7
82.5°	201.2	215.6	210.8	344.9	380.8	435.9	538.9	800.0	1039.5	1053.9	996.4
85°	9.6	9.6	9.6	14.4	24.0	38.3	74.3	74.3	81.4	155.7	177.2
87.5°	2.4	2.4	4.8	4.8	4.8	7.2	7.2	9.6	9.6	9.6	9.6
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°	2380.8	2380.8	2380.8	2380.8	2380.8	2380.8	2380.8	2380.8	2380.8	2380.8	2380.8
2.5°	2385.6	2376.1	2361.7	2364.1	2361.7	2361.7	2349.7	2340.1	2337.7	2342.5	2352.1
5°	2388.0	2373.7	2352.1	2344.9	2337.7	2332.9	2313.8	2299.4	2292.2	2297.0	2299.4
7.5°	2388.0	2366.5	2342.5	2328.1	2309.0	2294.6	2273.1	2253.9	2244.3	2246.7	2251.5
10°	2383.2	2359.3	2340.1	2311.4	2280.2	2263.5	2229.9	2206.0	2194.0	2196.4	2184.4
12.5°	2383.2	2356.9	2318.6	2292.2	2249.1	2213.2	2186.8	2160.5	2150.9	2141.3	2136.5
15°	2385.6	2352.1	2313.8	2258.7	2208.4	2170.1	2136.5	2119.8	2105.4	2100.6	2103.0
17.5°	2385.6	2352.1	2294.6	2229.9	2172.5	2124.6	2095.8	2076.7	2071.9	2067.1	2067.1
20°	2397.6	2354.5	2277.8	2201.2	2129.3	2079.0	2052.7	2040.7	2040.7	2033.5	2033.5
22.5°	2416.8	2359.3	2268.3	2177.2	2093.4	2038.3	2009.6	1995.2	2002.4	1997.6	1995.2
25°	2438.3	2376.1	2256.3	2143.7	2045.5	1988.0	1959.3	1949.7	1947.3	1935.3	1952.1
27.5°	2455.1	2388.0	2249.1	2110.2	2002.4	1935.3	1899.4	1882.6	1870.7	1875.5	1870.7
30°	2500.6	2421.6	2251.5	2081.4	1954.5	1873.1	1829.9	1810.8	1806.0	1806.0	1806.0
32.5°	2562.9	2464.7	2268.3	2069.5	1909.0	1813.2	1760.5	1741.3	1736.5	1726.9	1731.7
35°	2641.9	2529.3	2294.6	2050.3	1873.1	1743.7	1686.2	1659.9	1652.7	1643.1	1643.1
37.5°	2730.5	2594.0	2313.8	2040.7	1825.2	1671.9	1607.2	1573.7	1568.9	1559.3	1564.1
40°	2843.1	2682.6	2344.9	2021.6	1770.1	1607.2	1521.0	1465.9	1477.8	1482.6	1492.2
42.5°	2970.1	2795.2	2392.8	2002.4	1726.9	1540.1	1413.2	1358.1	1372.5	1367.7	1377.2
45°	3142.5	2927.0	2452.7	1995.2	1674.3	1458.7	1303.0	1240.7	1235.9	1228.7	1233.5
47.5°	3322.2	3085.0	2510.2	1980.8	1616.8	1358.1	1178.4	1099.4	1080.2	1070.7	1061.1
50°	3509.0	3243.1	2577.3	1971.3	1540.1	1245.5	1053.9	962.9	926.9	915.0	903.0
52.5°	3719.8	3413.2	2634.7	1947.3	1456.3	1128.1	941.3	838.3	797.6	773.7	776.0
55°	3942.5	3568.9	2687.4	1918.6	1360.5	1018.0	828.7	742.5	701.8	694.6	694.6
57.5°	4148.5	3729.3	2725.8	1868.3	1264.7	910.2	735.3	661.1	641.9	651.5	651.5
60°	4359.3	3858.7	2744.9	1813.2	1166.5	819.2	670.7	610.8	601.2	620.4	622.8
62.5°	4529.4	3961.7	2740.1	1736.5	1058.7	740.1	608.4	560.5	565.3	598.8	606.0
65°	4651.5	4012.0	2680.2	1621.6	955.7	670.7	553.3	507.8	507.8	531.7	538.9
67.5°	4641.9	3947.3	2560.5	1461.1	845.5	601.2	503.0	467.1	467.1	483.8	481.4
70°	4445.5	3724.6	2332.9	1267.1	737.7	541.3	459.9	433.5	431.1	438.3	435.9
72.5°	3973.7	3271.9	1978.4	1046.7	637.1	481.4	416.8	392.8	388.0	378.4	371.3
75°	3279.0	2687.4	1544.9	833.5	538.9	424.0	376.0	354.5	335.3	347.3	340.1
77.5°	2543.7	2062.3	1149.7	646.7	438.3	368.9	335.3	311.4	306.6	349.7	335.3
80°	1856.3	1425.2	812.0	462.3	340.1	299.4	280.2	261.1	330.5	443.1	440.7
82.5°	824.0	687.4	371.3	220.4	158.1	131.7	110.2	124.6	208.4	203.6	210.8
85°	74.3	76.6	40.7	26.3	16.8	14.4	9.6	9.6	7.2	7.2	7.2
87.5°	9.6	9.6	7.2	7.2	4.8	4.8	4.8	4.8	2.4	2.4	2.4
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**

$\lambda$ (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			

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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)