

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: STREETWORKS

Report Number: P870452

Luminaire Tested: **MEM2-HSN-SA-130-830-U-T4W**

Issue Date: 09/05/2024



**Test Information**

Test Method: LM-79-08  
Report Number: P870452  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 09/05/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: MEM2-HSN-SA-130-830-U-T4W  
Description: EPIC MODERN SHORT HOUSING DISCRETE LED ARRAYS 130W 80CRI 3000K  
FITXURE w/ TYPE IV WIDE DISTRIBUTION OPTIC  
Light Source: (30) 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

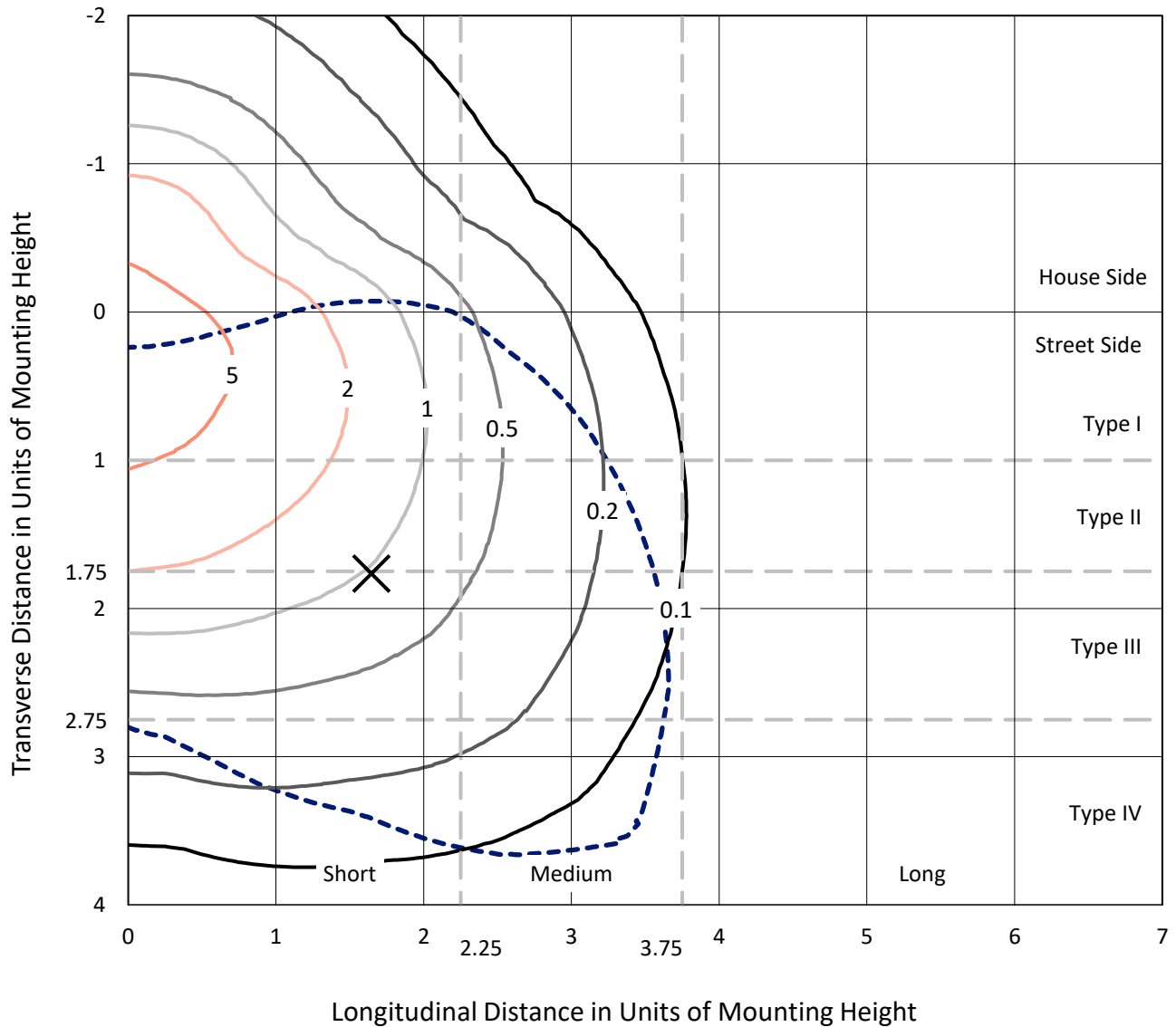
Lumens per Lamp: N/A  
Luminaire Lumens: 16415.9 lumens  
Efficiency: N/A  
Efficacy: 122.5 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 0.33' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B3 - U0 - G3

Input Watts (W): 134  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: 0.99  
Total Harmonic Distortion (THDi): 6.70%  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT

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 CATALOG NUMBER: MEM2-HSN-SA-130-830-U-T4W

### Iso-Footcandle Lines of Horizontal Illumination

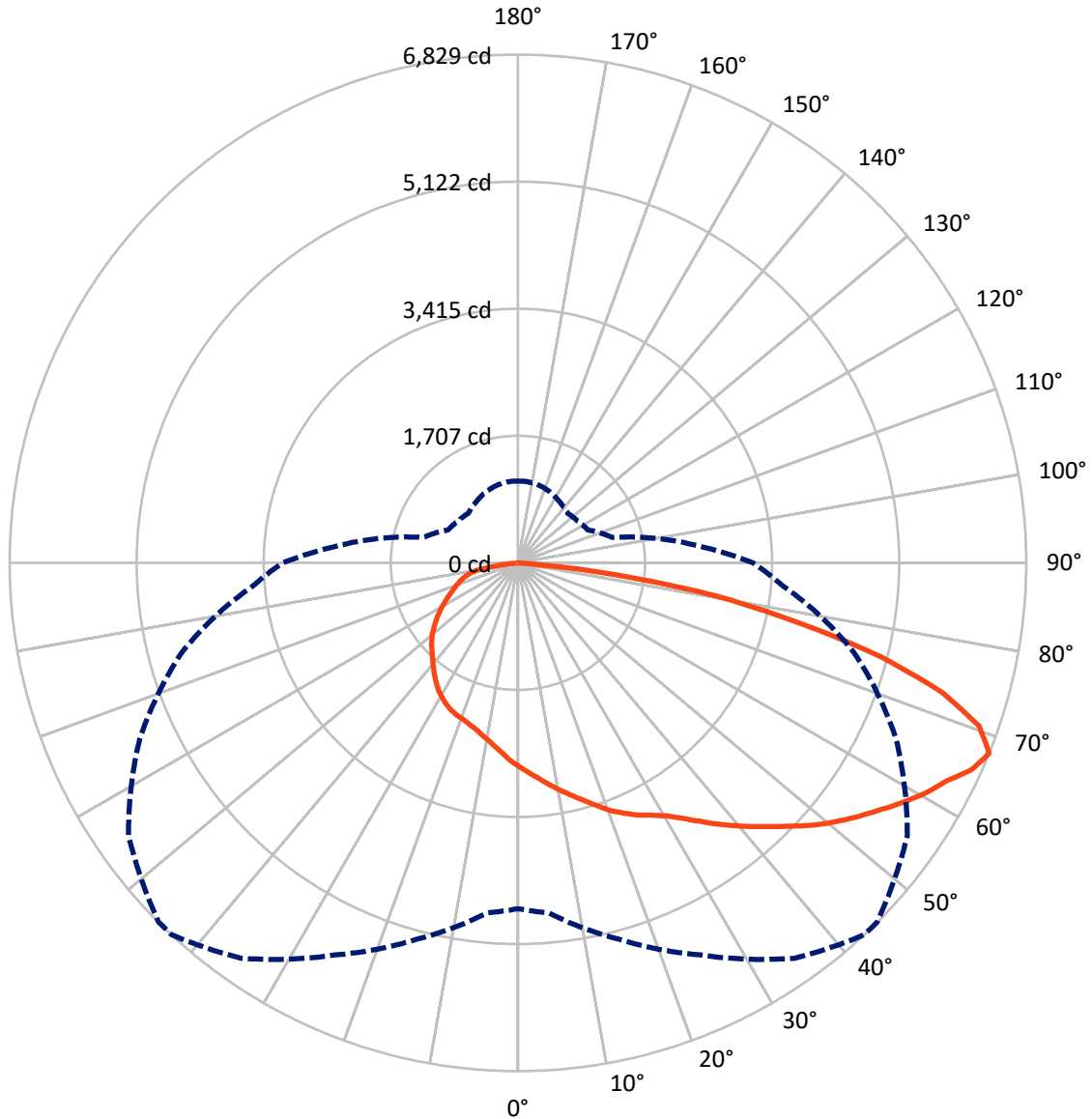
✕ Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 7.8 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



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

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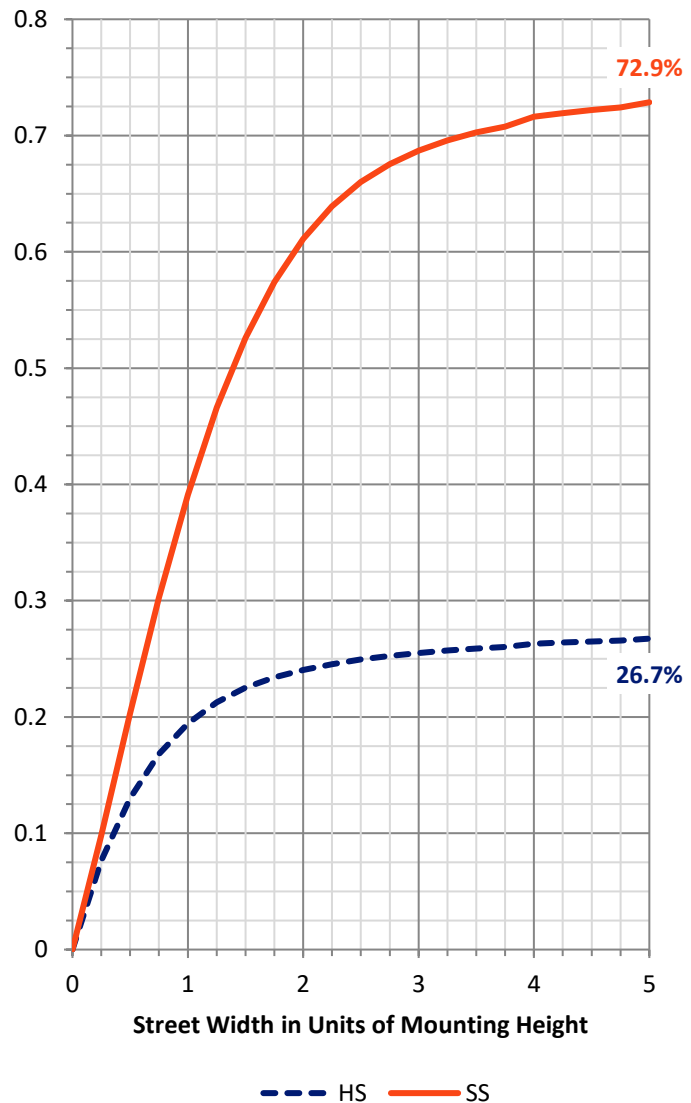
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	4415.9	0.0	4415.9
	% Fixture	26.9	0.0	26.9
<b>Street Side</b>	Lumens	12000.0	0.0	12000.0
	% Fixture	73.1	0.0	73.1
<b>Total</b>	Lumens	16415.9	0.0	16415.9
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	262.2	1.6
10°-20°	800.9	4.9
20°-30°	1366.4	8.3
30°-40°	1992.9	12.1
40°-50°	2677.2	16.3
50°-60°	3277.4	20.0
60°-70°	3449.2	21.0
70°-80°	2251.9	13.7
80°-90°	337.8	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°	16415.9	100.0
0°-180°	16415.9	100.0



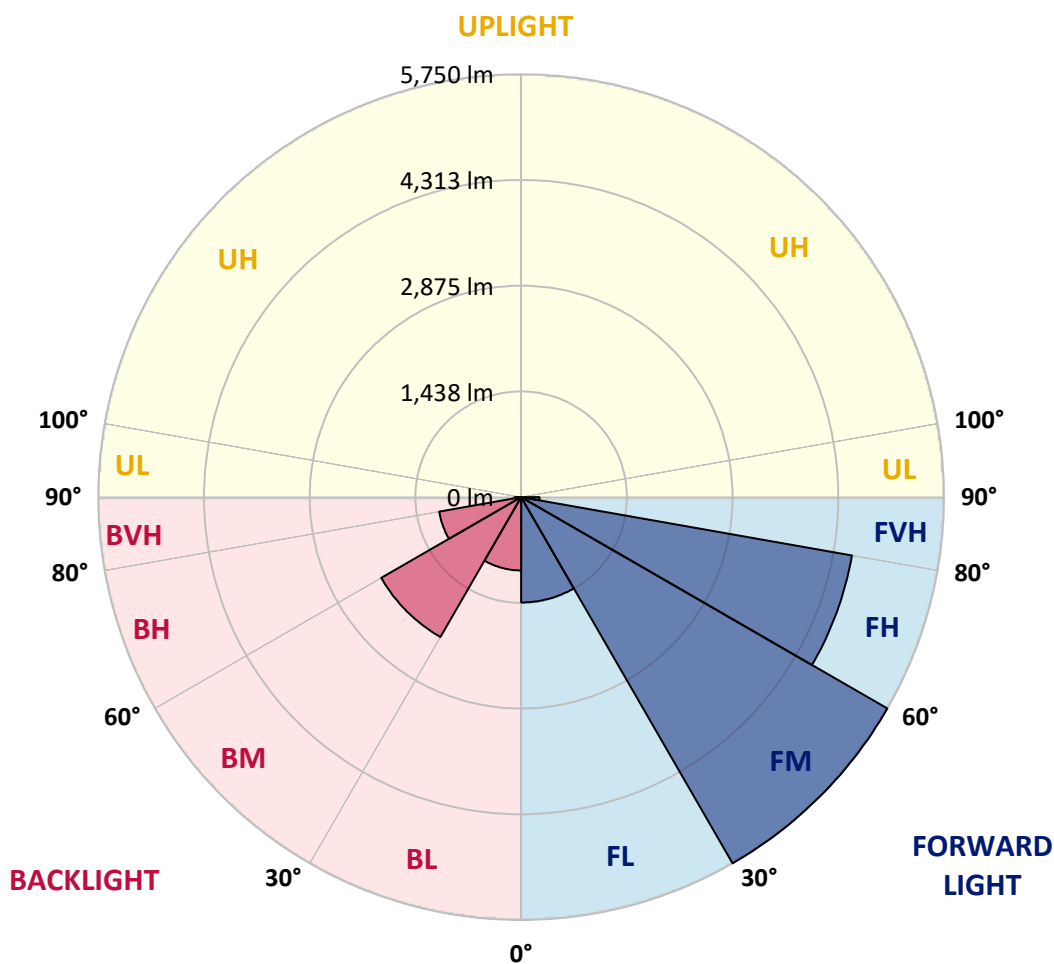
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1432.6	8.7			
FM (30°-60°)	5750.4	35.0			
FH (60°-80°)	4567.8	27.8			G2/5000
FVH (80°-90°)	249.2	1.5			G3/500
BL (0°-30°)	996.9	6.1	B2/1000		
BM (30°-60°)	2197.2	13.4	B2/2500		
BH (60°-80°)	1133.3	6.9	B3/2500		G3/2500
BVH (80°-90°)	88.6	0.5			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 IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	43°	45°	55°	65°	75°	85°
0°	2740.3	2740.3	2740.3	2740.3	2740.3	2740.3	2740.3	2740.3	2740.3	2740.3	2740.3
2.5°	2866.5	2863.2	2853.2	2846.6	2826.7	2823.3	2823.3	2803.4	2780.2	2766.9	2753.6
5°	2996.1	2979.5	2972.8	2959.5	2926.3	2906.4	2913.0	2876.5	2830.0	2796.8	2760.2
7.5°	3112.3	3105.7	3082.4	3065.8	3026.0	3006.0	2999.4	2942.9	2883.1	2833.3	2773.5
10°	3251.8	3235.2	3221.9	3188.7	3135.6	3105.7	3095.7	3022.6	2946.2	2879.8	2800.1
12.5°	3378.1	3358.1	3341.5	3308.3	3255.2	3205.3	3192.0	3109.0	3012.7	2923.0	2823.3
15°	3474.4	3477.7	3461.1	3431.2	3371.4	3311.6	3301.7	3192.0	3075.8	2966.2	2846.6
17.5°	3564.1	3577.3	3567.4	3547.5	3487.7	3427.9	3417.9	3295.0	3155.5	3016.0	2873.2
20°	3650.4	3650.4	3647.1	3633.8	3590.6	3550.8	3530.8	3407.9	3231.9	3069.1	2909.7
22.5°	3700.2	3713.5	3713.5	3713.5	3687.0	3653.7	3647.1	3527.5	3334.9	3135.6	2942.9
25°	3776.6	3793.3	3793.3	3786.6	3763.4	3753.4	3743.4	3630.5	3434.5	3212.0	2979.5
27.5°	3939.4	3936.1	3909.5	3876.3	3843.1	3839.8	3826.5	3746.8	3550.8	3295.0	3029.3
30°	4165.3	4171.9	4138.7	4035.7	3959.3	3942.7	3946.0	3876.3	3687.0	3391.3	3085.8
32.5°	4510.7	4510.7	4381.2	4248.3	4138.7	4095.5	4085.6	4025.8	3826.5	3497.6	3148.9
35°	4769.8	4759.8	4686.8	4530.6	4394.5	4271.6	4255.0	4175.2	3982.6	3617.2	3218.6
37.5°	4965.8	4985.7	4929.2	4809.7	4676.8	4464.2	4431.0	4318.1	4125.4	3733.5	3288.4
40°	5344.4	5294.6	5158.4	5048.8	4889.4	4653.5	4623.6	4484.1	4271.6	3863.0	3374.7
42.5°	5620.1	5550.4	5394.3	5248.1	5048.8	4842.9	4816.3	4663.5	4441.0	4009.2	3464.4
45°	6015.4	5859.3	5643.4	5513.8	5231.5	5048.8	5015.6	4849.5	4617.0	4165.3	3577.3
47.5°	6397.4	6125.0	5895.8	5836.0	5430.8	5271.4	5244.8	5052.1	4806.3	4334.7	3687.0
50°	6347.6	6168.2	6091.8	6035.3	5603.5	5480.6	5454.0	5258.1	4999.0	4514.0	3796.6
52.5°	6221.3	6237.9	6241.3	6105.1	5766.3	5676.6	5650.0	5480.6	5198.3	4670.2	3902.9
55°	6354.2	6374.1	6370.8	6164.9	5955.6	5872.6	5856.0	5706.5	5390.9	4816.3	3979.3
57.5°	6556.8	6490.4	6480.4	6314.3	6158.2	6081.8	6061.9	5932.4	5553.7	4922.6	4039.0
60°	6593.4	6460.5	6503.7	6347.6	6311.0	6287.8	6281.1	6128.3	5706.5	5009.0	4062.3
62.5°	6184.8	6161.5	6330.9	6267.8	6390.7	6457.2	6460.5	6267.8	5789.5	5042.2	4039.0
65°	5487.3	5580.3	5945.6	6128.3	6510.3	6699.6	6693.0	6350.9	5779.6	4945.8	3896.2
67.5°	4646.9	4720.0	5234.8	5812.8	6483.7	6829.2	6825.9	6387.4	5606.8	4680.1	3574.0
70°	3524.2	3753.4	4484.1	5244.8	6125.0	6573.4	6629.9	6181.5	5211.6	4195.2	3085.8
72.5°	2680.5	2717.1	3600.6	4397.8	5483.9	5965.6	5955.6	5523.8	4550.6	3534.2	2570.9
75°	1903.3	1983.0	2710.4	3407.9	4494.1	5028.9	5005.6	4530.6	3630.5	2750.3	1966.4
77.5°	1418.3	1448.2	1983.0	2527.7	3361.4	3843.1	3833.1	3348.2	2670.6	2019.5	1464.8
80°	1036.3	1086.2	1428.3	1763.8	2278.6	2693.8	2680.5	2222.1	1713.9	1411.7	1069.6
82.5°	581.3	617.8	830.4	1066.2	1202.4	1332.0	1275.5	1066.2	780.6	607.9	524.8
85°	16.6	19.9	29.9	36.5	63.1	106.3	116.3	103.0	122.9	76.4	83.0
87.5°	6.6	6.6	6.6	6.6	6.6	10.0	10.0	10.0	10.0	10.0	10.0
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: P870452

CATALOG NUMBER: MEM2-HSN-SA-130-830-U-T4W

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2740.3	2740.3	2740.3	2740.3	2740.3	2740.3	2740.3	2740.3	2740.3	2740.3	2740.3
2.5°	2747.0	2733.7	2707.1	2690.5	2680.5	2667.2	2647.3	2634.0	2624.1	2637.3	2634.0
5°	2743.6	2717.1	2670.6	2637.3	2604.1	2577.6	2547.7	2524.4	2511.1	2517.8	2514.4
7.5°	2743.6	2710.4	2637.3	2584.2	2534.4	2494.5	2461.3	2431.4	2418.1	2421.4	2418.1
10°	2756.9	2710.4	2614.1	2537.7	2471.3	2424.8	2388.2	2361.6	2351.7	2361.6	2365.0
12.5°	2770.2	2710.4	2594.2	2497.8	2411.5	2361.6	2328.4	2311.8	2318.5	2321.8	2325.1
15°	2776.8	2707.1	2574.2	2451.3	2355.0	2301.9	2281.9	2278.6	2295.2	2311.8	2315.1
17.5°	2793.5	2703.8	2544.3	2404.8	2305.2	2262.0	2252.0	2265.3	2298.5	2321.8	2328.4
20°	2813.4	2710.4	2511.1	2348.4	2255.4	2222.1	2238.7	2268.6	2308.5	2341.7	2348.4
22.5°	2833.3	2713.7	2481.2	2298.5	2202.2	2195.6	2232.1	2275.3	2321.8	2355.0	2361.6
25°	2856.6	2713.7	2441.4	2235.4	2149.1	2159.0	2215.5	2272.0	2315.1	2358.3	2365.0
27.5°	2879.8	2720.4	2398.2	2165.7	2082.6	2112.5	2182.3	2252.0	2298.5	2341.7	2351.7
30°	2919.7	2733.7	2361.6	2105.9	2016.2	2056.1	2139.1	2218.8	2268.6	2315.1	2325.1
32.5°	2959.5	2753.6	2331.8	2042.8	1949.8	1996.3	2089.3	2179.0	2232.1	2275.3	2281.9
35°	3012.7	2780.2	2308.5	1979.7	1883.3	1919.9	2019.5	2119.2	2179.0	2212.2	2228.8
37.5°	3069.1	2816.7	2288.6	1923.2	1810.3	1843.5	1949.8	2056.1	2119.2	2152.4	2159.0
40°	3138.9	2866.5	2275.3	1870.1	1740.5	1767.1	1873.4	1989.6	2049.4	2072.7	2086.0
42.5°	3215.3	2919.7	2265.3	1816.9	1664.1	1690.7	1803.6	1916.6	1976.3	1996.3	2006.2
45°	3311.6	2989.4	2258.7	1760.4	1601.0	1624.3	1737.2	1850.1	1899.9	1926.5	1936.5
47.5°	3401.3	3059.2	2238.7	1694.0	1531.3	1564.5	1667.4	1767.1	1823.6	1840.2	1850.1
50°	3491.0	3119.0	2198.9	1620.9	1468.1	1498.0	1591.0	1664.1	1707.3	1727.2	1733.9
52.5°	3577.3	3162.2	2135.8	1544.5	1401.7	1421.6	1498.0	1567.8	1597.7	1604.3	1624.3
55°	3633.8	3185.4	2046.1	1454.9	1335.3	1341.9	1398.4	1461.5	1478.1	1481.4	1481.4
57.5°	3673.7	3172.1	1939.8	1365.2	1268.8	1268.8	1302.1	1351.9	1358.5	1361.9	1368.5
60°	3680.3	3125.6	1803.6	1282.1	1195.8	1185.8	1219.0	1248.9	1252.2	1258.9	1265.5
62.5°	3630.5	3022.6	1657.5	1202.4	1126.0	1102.8	1132.7	1162.6	1179.2	1189.1	1195.8
65°	3477.7	2813.4	1491.4	1122.7	1059.6	1019.7	1056.3	1106.1	1139.3	1142.6	1142.6
67.5°	3158.8	2474.6	1315.3	1039.7	979.9	943.3	989.8	1043.0	1082.8	1099.4	1096.1
70°	2677.2	2099.2	1152.6	953.3	900.2	876.9	926.7	986.5	1019.7	1033.0	1039.7
72.5°	2155.7	1680.7	1009.8	866.9	830.4	817.1	866.9	926.7	973.2	993.2	996.5
75°	1677.4	1322.0	890.2	777.3	747.4	750.7	803.8	863.6	913.4	923.4	893.5
77.5°	1302.1	1052.9	777.3	671.0	654.4	677.6	730.7	793.9	823.8	833.7	813.8
80°	940.0	807.1	627.8	528.1	528.1	564.7	611.2	684.2	694.2	680.9	687.6
82.5°	445.1	391.9	308.9	255.8	239.2	265.7	282.3	305.6	332.2	338.8	322.2
85°	59.8	39.9	29.9	33.2	29.9	19.9	13.3	13.3	13.3	10.0	10.0
87.5°	10.0	10.0	6.6	6.6	6.6	6.6	6.6	6.6	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



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-30-830-U-5WQ

Data in this report applies to families of products including MEM2-HTN-SA-30-830-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-30-830-U-5WQ**  
 Description: Epic Modern Light Square 30W 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

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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)