

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: P869031

Luminaire Tested: **EMM2-HSN-SA3A-740-U-T4W**

Issue Date: 08/22/2024



**Test Information**

Test Method: LM-79-08  
Report Number: P869031  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 08/22/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: EMM2-HSN-SA3A-740-U-T4W  
Description: EPIC MODERN SHORT HOUSING DISCRETE LED ARRAYS 130W 70CRI 4000K  
FIXTURE w/ TYPE IV WIDE DISTRIBUTION OPTIC  
Light Source: (30) 4000K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

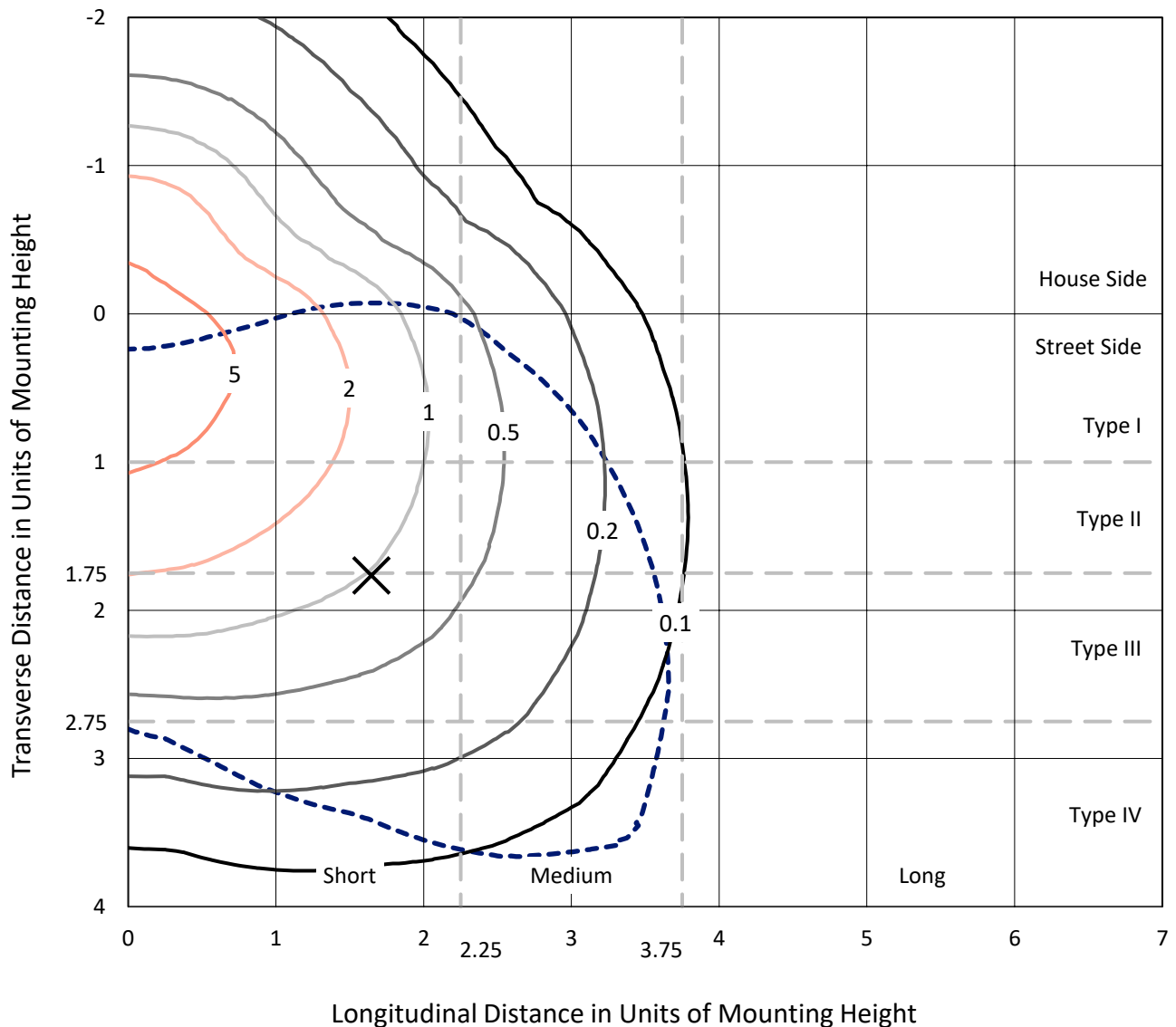
Lumens per Lamp: N/A  
Luminaire Lumens: 16631.9 lumens  
Efficiency: N/A  
Efficacy: 147.2 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 0.33' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B3 - U0 - G3

Input Watts (W): 113  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: 0.99  
Total Harmonic Distortion (THDi): 7.77%  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT

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 CATALOG NUMBER: EMM2-HSN-SA3A-740-U-T4W

### Iso-Footcandle Lines of Horizontal Illumination

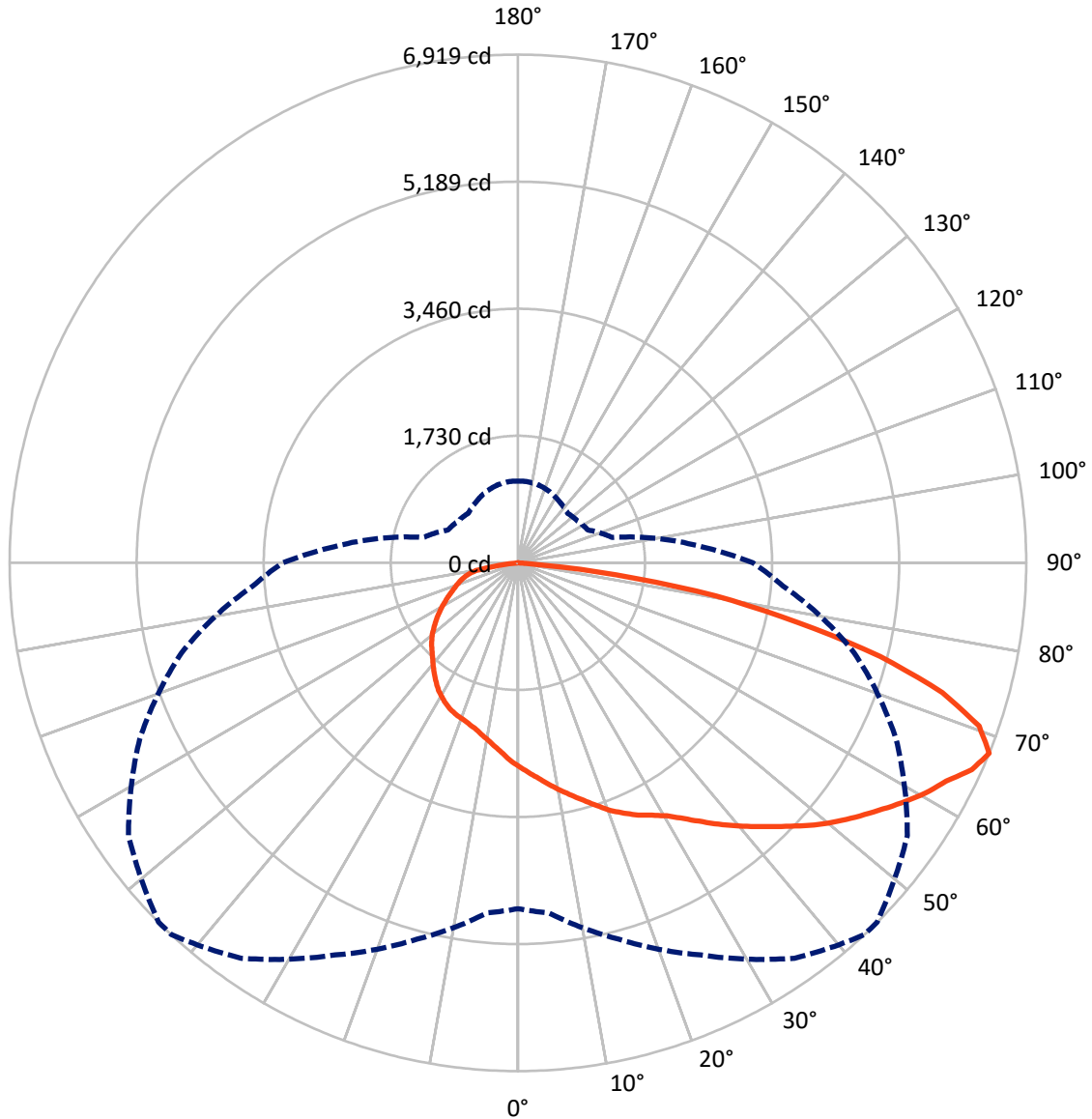
✕ Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 7.9 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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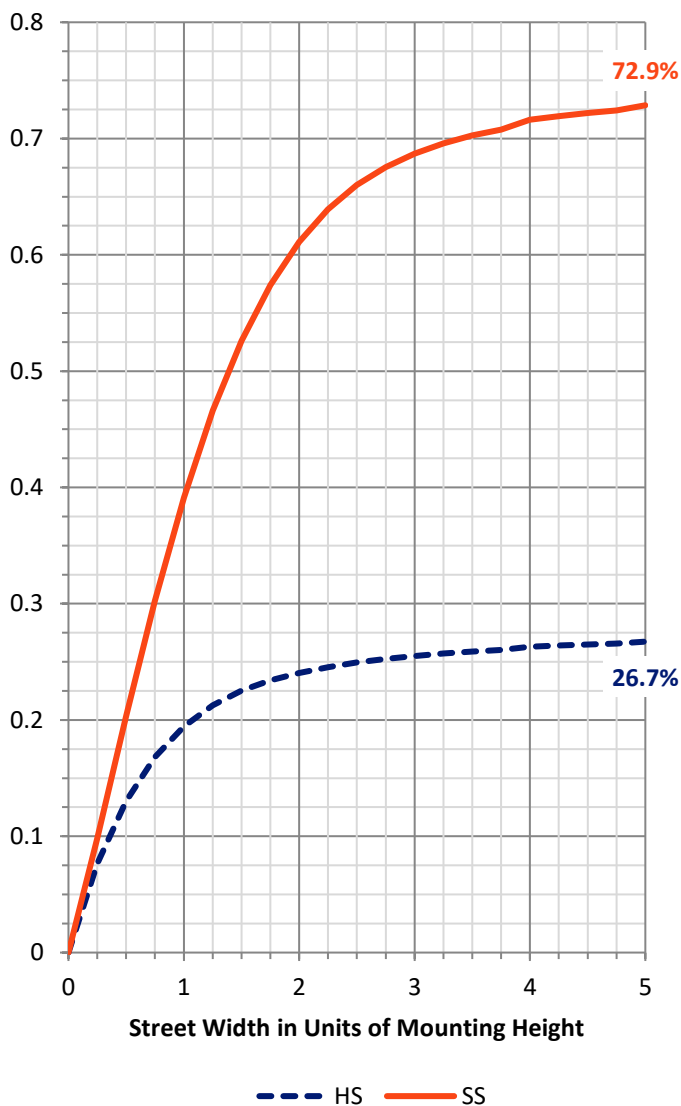
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	4474.0	0.0	4474.0
	% Fixture	26.9	0.0	26.9
<b>Street Side</b>	Lumens	12157.9	0.0	12157.9
	% Fixture	73.1	0.0	73.1
<b>Total</b>	Lumens	16631.9	0.0	16631.9
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	265.7	1.6
10°-20°	811.4	4.9
20°-30°	1384.4	8.3
30°-40°	2019.1	12.1
40°-50°	2712.5	16.3
50°-60°	3320.5	20.0
60°-70°	3494.6	21.0
70°-80°	2281.5	13.7
80°-90°	342.2	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°	16631.9	100.0
0°-180°	16631.9	100.0

**Coefficient of Utilization**



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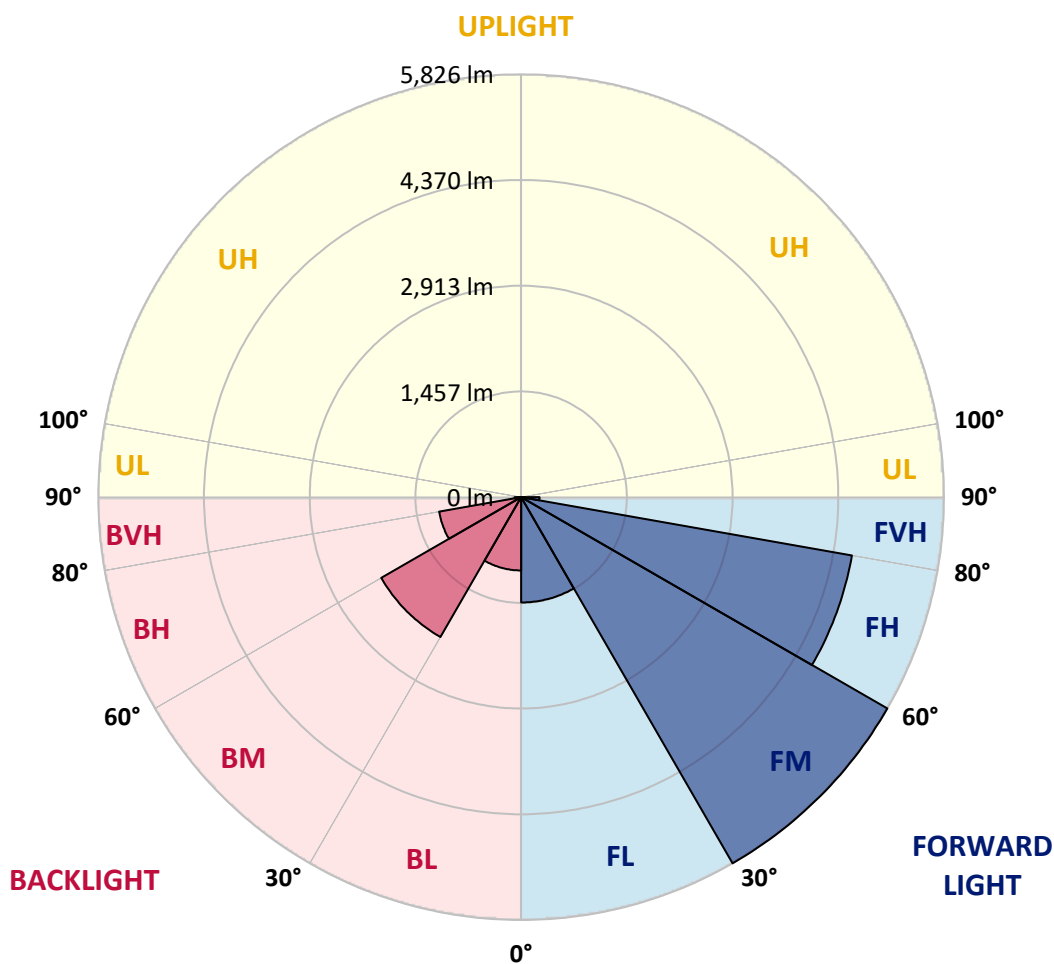
CATALOG NUMBER: EMM2-HSN-SA3A-740-U-T4W

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1451.5	8.7			
FM (30°-60°)	5826.0	35.0			
FH (60°-80°)	4627.9	27.8			G2/5000
FVH (80°-90°)	252.5	1.5			G3/500
BL (0°-30°)	1010.1	6.1	B3/2500		
BM (30°-60°)	2226.1	13.4	B2/2500		
BH (60°-80°)	1148.2	6.9	B3/2500		G3/2500
BVH (80°-90°)	89.7	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°	2776.4	2776.4	2776.4	2776.4	2776.4	2776.4	2776.4	2776.4	2776.4	2776.4	2776.4
2.5°	2904.2	2900.9	2890.8	2884.1	2863.9	2860.5	2860.5	2840.3	2816.7	2803.3	2789.8
5°	3035.5	3018.7	3011.9	2998.5	2964.8	2944.6	2951.4	2914.3	2867.2	2833.6	2796.6
7.5°	3153.3	3146.5	3123.0	3106.2	3065.8	3045.6	3038.9	2981.6	2921.1	2870.6	2810.0
10°	3294.6	3277.8	3264.3	3230.7	3176.8	3146.5	3136.4	3062.4	2985.0	2917.7	2836.9
12.5°	3422.5	3402.3	3385.5	3351.8	3298.0	3247.5	3234.0	3149.9	3052.3	2961.5	2860.5
15°	3520.1	3523.5	3506.6	3476.3	3415.8	3355.2	3345.1	3234.0	3116.3	3005.2	2884.1
17.5°	3611.0	3624.4	3614.3	3594.1	3533.6	3473.0	3462.9	3338.4	3197.0	3055.7	2911.0
20°	3698.5	3698.5	3695.1	3681.6	3637.9	3597.5	3577.3	3452.8	3274.4	3109.5	2948.0
22.5°	3748.9	3762.4	3762.4	3762.4	3735.5	3701.8	3695.1	3573.9	3378.7	3176.8	2981.6
25°	3826.3	3843.2	3843.2	3836.4	3812.9	3802.8	3792.7	3678.3	3479.7	3254.2	3018.7
27.5°	3991.2	3987.9	3960.9	3927.3	3893.6	3890.3	3876.8	3796.0	3597.5	3338.4	3069.1
30°	4220.1	4226.8	4193.1	4088.8	4011.4	3994.6	3998.0	3927.3	3735.5	3436.0	3126.4
32.5°	4570.1	4570.1	4438.8	4304.2	4193.1	4149.4	4139.3	4078.7	3876.8	3543.6	3190.3
35°	4832.6	4822.5	4748.4	4590.3	4452.3	4327.8	4310.9	4230.2	4035.0	3664.8	3261.0
37.5°	5031.1	5051.3	4994.1	4872.9	4738.3	4522.9	4489.3	4374.9	4179.7	3782.6	3331.6
40°	5414.7	5364.3	5226.3	5115.2	4953.7	4714.8	4684.5	4543.1	4327.8	3913.8	3419.1
42.5°	5694.1	5623.4	5465.2	5317.2	5115.2	4906.6	4879.7	4724.9	4499.4	4061.9	3510.0
45°	6094.5	5936.4	5717.6	5586.4	5300.3	5115.2	5081.6	4913.3	4677.7	4220.1	3624.4
47.5°	6481.5	6205.6	5973.4	5912.8	5502.2	5340.7	5313.8	5118.6	4869.6	4391.7	3735.5
50°	6431.1	6249.3	6171.9	6114.7	5677.2	5552.7	5525.8	5327.2	5064.8	4573.4	3846.5
52.5°	6303.2	6320.0	6323.4	6185.4	5842.1	5751.3	5724.4	5552.7	5266.7	4731.6	3954.2
55°	6437.8	6458.0	6454.6	6246.0	6034.0	5949.8	5933.0	5781.6	5461.9	4879.7	4031.6
57.5°	6643.1	6575.8	6565.7	6397.4	6239.2	6161.8	6141.6	6010.4	5626.8	4987.4	4092.2
60°	6680.1	6545.5	6589.2	6431.1	6394.0	6370.5	6363.8	6209.0	5781.6	5074.9	4115.7
62.5°	6266.2	6242.6	6414.2	6350.3	6474.8	6542.1	6545.5	6350.3	5865.7	5108.5	4092.2
65°	5559.5	5653.7	6023.9	6209.0	6596.0	6787.8	6781.1	6434.4	5855.6	5010.9	3947.5
67.5°	4708.0	4782.1	5303.7	5889.3	6569.0	6919.0	6915.7	6471.4	5680.6	4741.7	3621.0
70°	3570.6	3802.8	4543.1	5313.8	6205.6	6659.9	6717.1	6262.8	5280.1	4250.4	3126.4
72.5°	2715.8	2752.8	3648.0	4455.6	5556.1	6044.1	6034.0	5596.5	4610.4	3580.7	2604.7
75°	1928.3	2009.1	2746.1	3452.8	4553.2	5095.0	5071.5	4590.3	3678.3	2786.5	1992.2
77.5°	1437.0	1467.3	2009.1	2561.0	3405.7	3893.6	3883.5	3392.2	2705.7	2046.1	1484.1
80°	1050.0	1100.4	1447.1	1787.0	2308.6	2729.2	2715.8	2251.4	1736.5	1430.2	1083.6
82.5°	588.9	625.9	841.3	1080.3	1218.2	1349.5	1292.3	1080.3	790.8	615.8	531.7
85°	16.8	20.2	30.3	37.0	63.9	107.7	117.8	104.3	124.5	77.4	84.1
87.5°	6.7	6.7	6.7	6.7	6.7	10.1	10.1	10.1	10.1	10.1	10.1
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: P869031

CATALOG NUMBER: EMM2-HSN-SA3A-740-U-T4W

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2776.4	2776.4	2776.4	2776.4	2776.4	2776.4	2776.4	2776.4	2776.4	2776.4	2776.4
2.5°	2783.1	2769.6	2742.7	2725.9	2715.8	2702.3	2682.1	2668.7	2658.6	2672.0	2668.7
5°	2779.7	2752.8	2705.7	2672.0	2638.4	2611.5	2581.2	2557.6	2544.2	2550.9	2547.5
7.5°	2779.7	2746.1	2672.0	2618.2	2567.7	2527.3	2493.7	2463.4	2449.9	2453.3	2449.9
10°	2793.2	2746.1	2648.5	2571.1	2503.8	2456.7	2419.6	2392.7	2382.6	2392.7	2396.1
12.5°	2806.6	2746.1	2628.3	2530.7	2443.2	2392.7	2359.1	2342.2	2349.0	2352.3	2355.7
15°	2813.4	2742.7	2608.1	2483.6	2386.0	2332.1	2312.0	2308.6	2325.4	2342.2	2345.6
17.5°	2830.2	2739.3	2577.8	2436.5	2335.5	2291.8	2281.7	2295.1	2328.8	2352.3	2359.1
20°	2850.4	2746.1	2544.2	2379.3	2285.0	2251.4	2268.2	2298.5	2338.9	2372.5	2379.3
22.5°	2870.6	2749.4	2513.9	2328.8	2231.2	2224.5	2261.5	2305.2	2352.3	2386.0	2392.7
25°	2894.1	2749.4	2473.5	2264.8	2177.3	2187.4	2244.6	2301.9	2345.6	2389.4	2396.1
27.5°	2917.7	2756.2	2429.7	2194.2	2110.0	2140.3	2211.0	2281.7	2328.8	2372.5	2382.6
30°	2958.1	2769.6	2392.7	2133.6	2042.7	2083.1	2167.2	2248.0	2298.5	2345.6	2355.7
32.5°	2998.5	2789.8	2362.4	2069.7	1975.4	2022.5	2116.8	2207.6	2261.5	2305.2	2312.0
35°	3052.3	2816.7	2338.9	2005.7	1908.1	1945.1	2046.1	2147.1	2207.6	2241.3	2258.1
37.5°	3109.5	2853.8	2318.7	1948.5	1834.1	1867.7	1975.4	2083.1	2147.1	2180.7	2187.4
40°	3180.2	2904.2	2305.2	1894.7	1763.4	1790.3	1898.0	2015.8	2076.4	2099.9	2113.4
42.5°	3257.6	2958.1	2295.1	1840.8	1686.0	1712.9	1827.4	1941.8	2002.3	2022.5	2032.6
45°	3355.2	3028.8	2288.4	1783.6	1622.1	1645.6	1760.0	1874.5	1924.9	1951.9	1962.0
47.5°	3446.1	3099.4	2268.2	1716.3	1551.4	1585.1	1689.4	1790.3	1847.5	1864.4	1874.5
50°	3536.9	3160.0	2227.8	1642.3	1487.5	1517.7	1612.0	1686.0	1729.8	1749.9	1756.7
52.5°	3624.4	3203.8	2163.9	1564.9	1420.2	1440.3	1517.7	1588.4	1618.7	1625.4	1645.6
55°	3681.6	3227.3	2073.0	1474.0	1352.8	1359.6	1416.8	1480.7	1497.6	1500.9	1500.9
57.5°	3722.0	3213.8	1965.3	1383.1	1285.5	1285.5	1319.2	1369.7	1376.4	1379.8	1386.5
60°	3728.7	3166.7	1827.4	1299.0	1211.5	1201.4	1235.1	1265.3	1268.7	1275.4	1282.2
62.5°	3678.3	3062.4	1679.3	1218.2	1140.8	1117.3	1147.6	1177.9	1194.7	1204.8	1211.5
65°	3523.5	2850.4	1511.0	1137.5	1073.5	1033.1	1070.2	1120.6	1154.3	1157.7	1157.7
67.5°	3200.4	2507.1	1332.7	1053.3	992.8	955.7	1002.9	1056.7	1097.1	1113.9	1110.5
70°	2712.4	2126.9	1167.8	965.8	912.0	888.4	938.9	999.5	1033.1	1046.6	1053.3
72.5°	2184.1	1702.8	1023.0	878.3	841.3	827.9	878.3	938.9	986.0	1006.2	1009.6
75°	1699.5	1339.4	901.9	787.5	757.2	760.6	814.4	875.0	925.5	935.5	905.3
77.5°	1319.2	1066.8	787.5	679.8	663.0	686.5	740.4	804.3	834.6	844.7	824.5
80°	952.4	817.8	636.0	535.1	535.1	572.1	619.2	693.2	703.3	689.9	696.6
82.5°	450.9	397.1	313.0	259.1	242.3	269.2	286.0	309.6	336.5	343.3	326.4
85°	60.6	40.4	30.3	33.7	30.3	20.2	13.5	13.5	13.5	10.1	10.1
87.5°	10.1	10.1	6.7	6.7	6.7	6.7	6.7	6.7	3.4	3.4	3.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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

Report Prepared for

Cooper Lighting Solutions

Streetworks

Report Number: SP1-2407-157-5

Test Date: 08/07/2024

Luminaire Tested: MEM2-HTN-SA-40-740-U-5WQ-2

Data in this report applies to families of products including MEM2-HTN-SA-40-740-U-5WQ-2

**Test Information**

Test Method: LM-79-2019  
 Report Number: SP1-2407-157-5  
 Test Lab: COOPER LIGHTING SOLUTIONS  
 Photometer: SP1 - 76IN SPHERE  
 Measurement Geometry:  $4\pi$   
 Issue Date: 08/20/2024  
 Manufacturer: COOPER LIGHTING SOLUTIONS  
 Product Line: Streetworks  
 Catalog Number: **MEM2-HTN-SA-40-740-U-5WQ-2**  
 Description: Epic Modern Light Square 40W 5WQ Optic and Flare Trim

**Spectral Parameters**

CCT (K): 3915  
 CIE u': 0.2262  
 CIE v': 0.5044  
 Duv: 0.0010  
 CIE x: 0.3850  
 CIE y: 0.3816  
 CIE z: 0.2334  
 Peak Wavelength (nm): 449  
 Dominant Wavelength (nm): 578  
 Purity: 30.05482  
 R<sub>f</sub>: 73.2  
 R<sub>g</sub>: 93.9

CRI (Ra):	71.0		
R1:	67.6	R9:	-38.4
R2:	78.3	R10:	48.9
R3:	87.1	R11:	65.3
R4:	69.7	R12:	40.4
R5:	67.4	R13:	69.3
R6:	69.3	R14:	92.6
R7:	79.7	R15:	59.9
R8:	48.7		



**Test Conditions**

Stabilization Time: 21M  
 Operation Time: 1H 21M  
 Sphere Temperature (°C): 24.2

REPORT NUMBER: SP1-2407-157-5

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 4000K 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	112	NR	620	618	NR	750	15	NR	880	0	NR
365	0	NR	495	153	NR	625	563	NR	755	13	NR	885	0	NR
370	0	NR	500	216	NR	630	510	NR	760	11	NR	890	0	NR
375	0	NR	505	291	NR	635	456	NR	765	9	NR	895	0	NR
380	0	NR	510	366	NR	640	407	NR	770	8	NR	900	0	NR
385	0	NR	515	436	NR	645	359	NR	775	7	NR	905	0	NR
390	0	NR	520	492	NR	650	316	NR	780	6	NR	910	0	NR
395	2	NR	525	536	NR	655	277	NR	785	5	NR	915	0	NR
400	4	NR	530	567	NR	660	240	NR	790	4	NR	920	0	NR
405	7	NR	535	596	NR	665	208	NR	795	4	NR	925	0	NR
410	12	NR	540	619	NR	670	179	NR	800	3	NR	930	0	NR
415	25	NR	545	644	NR	675	154	NR	805	3	NR	935	0	NR
420	51	NR	550	671	NR	680	133	NR	810	3	NR	940	0	NR
425	100	NR	555	701	NR	685	114	NR	815	2	NR	945	0	NR
430	180	NR	560	735	NR	690	98	NR	820	2	NR	950	0	NR
435	315	NR	565	768	NR	695	83	NR	825	2	NR	955	0	NR
440	514	NR	570	798	NR	700	71	NR	830	1	NR	960	0	NR
445	828	NR	575	825	NR	705	61	NR	835	1	NR	965	0	NR
450	992	NR	580	843	NR	710	52	NR	840	1	NR	970	0	NR
455	652	NR	585	848	NR	715	44	NR	845	1	NR	975	0	NR
460	382	NR	590	844	NR	720	38	NR	850	1	NR	980	0	NR
465	282	NR	595	826	NR	725	32	NR	855	1	NR	985	0	NR
470	180	NR	600	800	NR	730	28	NR	860	1	NR	990	0	NR
475	119	NR	605	762	NR	735	24	NR	865	1	NR	995	0	NR
480	101	NR	610	719	NR	740	20	NR	870	1	NR	1000	0	NR
485	98	NR	615	669	NR	745	17	NR	875	0	NR			

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**Scotopic Flux vs. Wavelength**



**Scotopic Lumens: NR**

**S/P: 1.49**

$\lambda$ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens $(\phi/\text{nm})$	$\lambda$ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens $(\phi/\text{nm})$	$\lambda$ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens $(\phi/\text{nm})$	$\lambda$ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens $(\phi/\text{nm})$	$\lambda$ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens $(\phi/\text{nm})$
360	0	NR	490	112	NR	620	618	NR	750	15	NR	880	0	NR
365	0	NR	495	153	NR	625	563	NR	755	13	NR	885	0	NR
370	0	NR	500	216	NR	630	510	NR	760	11	NR	890	0	NR
375	0	NR	505	291	NR	635	456	NR	765	9	NR	895	0	NR
380	0	NR	510	366	NR	640	407	NR	770	8	NR	900	0	NR
385	0	NR	515	436	NR	645	359	NR	775	7	NR	905	0	NR
390	0	NR	520	492	NR	650	316	NR	780	6	NR	910	0	NR
395	2	NR	525	536	NR	655	277	NR	785	5	NR	915	0	NR
400	4	NR	530	567	NR	660	240	NR	790	4	NR	920	0	NR
405	7	NR	535	596	NR	665	208	NR	795	4	NR	925	0	NR
410	12	NR	540	619	NR	670	179	NR	800	3	NR	930	0	NR
415	25	NR	545	644	NR	675	154	NR	805	3	NR	935	0	NR
420	51	NR	550	671	NR	680	133	NR	810	3	NR	940	0	NR
425	100	NR	555	701	NR	685	114	NR	815	2	NR	945	0	NR
430	180	NR	560	735	NR	690	98	NR	820	2	NR	950	0	NR
435	315	NR	565	768	NR	695	83	NR	825	2	NR	955	0	NR
440	514	NR	570	798	NR	700	71	NR	830	1	NR	960	0	NR
445	828	NR	575	825	NR	705	61	NR	835	1	NR	965	0	NR
450	992	NR	580	843	NR	710	52	NR	840	1	NR	970	0	NR
455	652	NR	585	848	NR	715	44	NR	845	1	NR	975	0	NR
460	382	NR	590	844	NR	720	38	NR	850	1	NR	980	0	NR
465	282	NR	595	826	NR	725	32	NR	855	1	NR	985	0	NR
470	180	NR	600	800	NR	730	28	NR	860	1	NR	990	0	NR
475	119	NR	605	762	NR	735	24	NR	865	1	NR	995	0	NR
480	101	NR	610	719	NR	740	20	NR	870	1	NR	1000	0	NR
485	98	NR	615	669	NR	745	17	NR	875	0	NR			

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**Melanopic Flux vs. Wavelength**



**Melanopic Lumens: NR**

**M/P: 2.88**

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	112	NR	620	618	NR	750	15	NR	880	0	NR
365	0	NR	495	153	NR	625	563	NR	755	13	NR	885	0	NR
370	0	NR	500	216	NR	630	510	NR	760	11	NR	890	0	NR
375	0	NR	505	291	NR	635	456	NR	765	9	NR	895	0	NR
380	0	NR	510	366	NR	640	407	NR	770	8	NR	900	0	NR
385	0	NR	515	436	NR	645	359	NR	775	7	NR	905	0	NR
390	0	NR	520	492	NR	650	316	NR	780	6	NR	910	0	NR
395	2	NR	525	536	NR	655	277	NR	785	5	NR	915	0	NR
400	4	NR	530	567	NR	660	240	NR	790	4	NR	920	0	NR
405	7	NR	535	596	NR	665	208	NR	795	4	NR	925	0	NR
410	12	NR	540	619	NR	670	179	NR	800	3	NR	930	0	NR
415	25	NR	545	644	NR	675	154	NR	805	3	NR	935	0	NR
420	51	NR	550	671	NR	680	133	NR	810	3	NR	940	0	NR
425	100	NR	555	701	NR	685	114	NR	815	2	NR	945	0	NR
430	180	NR	560	735	NR	690	98	NR	820	2	NR	950	0	NR
435	315	NR	565	768	NR	695	83	NR	825	2	NR	955	0	NR
440	514	NR	570	798	NR	700	71	NR	830	1	NR	960	0	NR
445	828	NR	575	825	NR	705	61	NR	835	1	NR	965	0	NR
450	992	NR	580	843	NR	710	52	NR	840	1	NR	970	0	NR
455	652	NR	585	848	NR	715	44	NR	845	1	NR	975	0	NR
460	382	NR	590	844	NR	720	38	NR	850	1	NR	980	0	NR
465	282	NR	595	826	NR	725	32	NR	855	1	NR	985	0	NR
470	180	NR	600	800	NR	730	28	NR	860	1	NR	990	0	NR
475	119	NR	605	762	NR	735	24	NR	865	1	NR	995	0	NR
480	101	NR	610	719	NR	740	20	NR	870	1	NR	1000	0	NR
485	98	NR	615	669	NR	745	17	NR	875	0	NR			

**Summary**

$R_f = 73.2$   
 $R_g = 93.9$   
 $CIE R_a = 71.0$   
 $R_g = -38.4$



**Color Vector Graphics**



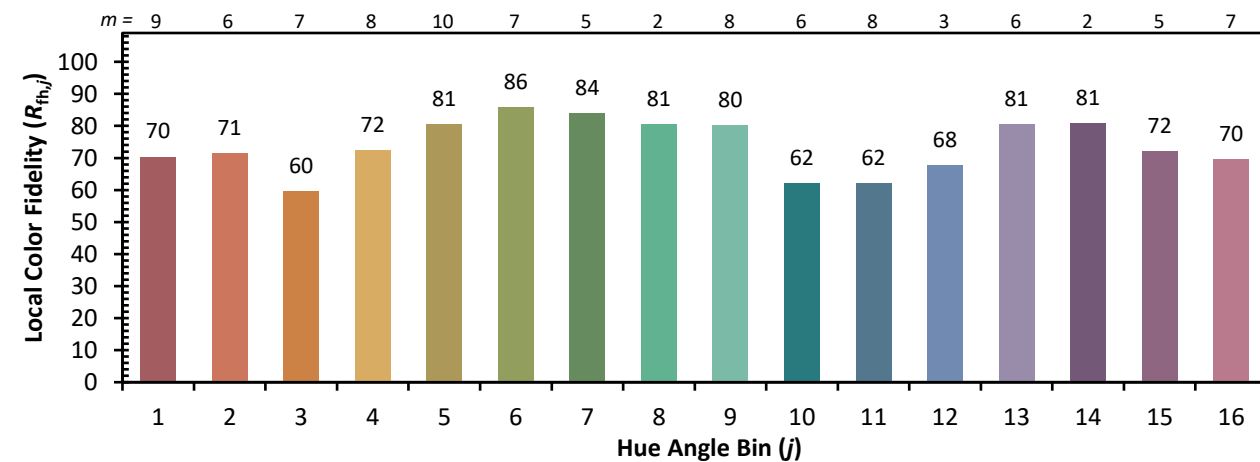


**Individual Sample Fidelity Index ( $R_{f,i}$ )**

CES01 = 85	CES26 = 61	CES51 = 88	CES76 = 50
CES02 = 61	CES27 = 88	CES52 = 87	CES77 = 69
CES03 = 30	CES28 = 81	CES53 = 77	CES78 = 53
CES04 = 70	CES29 = 65	CES54 = 84	CES79 = 81
CES05 = 47	CES30 = 81	CES55 = 83	CES80 = 78
CES06 = 50	CES31 = 69	CES56 = 73	CES81 = 77
CES07 = 40	CES32 = 60	CES57 = 72	CES82 = 91
CES08 = 39	CES33 = 76	CES58 = 73	CES83 = 89
CES09 = 29	CES34 = 70	CES59 = 85	CES84 = 86
CES10 = 74	CES35 = 83	CES60 = 89	CES85 = 77
CES11 = 57	CES36 = 91	CES61 = 81	CES86 = 71
CES12 = 63	CES37 = 79	CES62 = 85	CES87 = 76
CES13 = 42	CES38 = 92	CES63 = 72	CES88 = 80
CES14 = 74	CES39 = 96	CES64 = 64	CES89 = 70
CES15 = 71	CES40 = 91	CES65 = 61	CES90 = 79
CES16 = 46	CES41 = 93	CES66 = 57	CES91 = 74
CES17 = 49	CES42 = 80	CES67 = 54	CES92 = 57
CES18 = 56	CES43 = 76	CES68 = 63	CES93 = 74
CES19 = 72	CES44 = 99	CES69 = 73	CES94 = 51
CES20 = 65	CES45 = 85	CES70 = 55	CES95 = 65
CES21 = 86	CES46 = 82	CES71 = 48	CES96 = 76
CES22 = 78	CES47 = 86	CES72 = 83	CES97 = 84
CES23 = 92	CES48 = 77	CES73 = 45	CES98 = 75
CES24 = 91	CES49 = 80	CES74 = 93	CES99 = 62
CES25 = 72	CES50 = 88	CES75 = 51	



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)