

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: P871285

Luminaire Tested: **EMM2-HSN-SA3B-830-U-T4W-HSS**

Issue Date: 09/05/2024



**Test Information**

Test Method: LM-79-08  
Report Number: P871285  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 09/05/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: EMM2-HSN-SA3B-830-U-T4W-HSS  
Description: EPIC MODERN SHORT HOUSING DISCRETE LED ARRAYS 150W 80CRI 3000K  
FIXTURE w/ TYPE IV WIDE DISTRIBUTION OPTIC AND HOUSE SIDE SHIELD  
Light Source: (30) 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

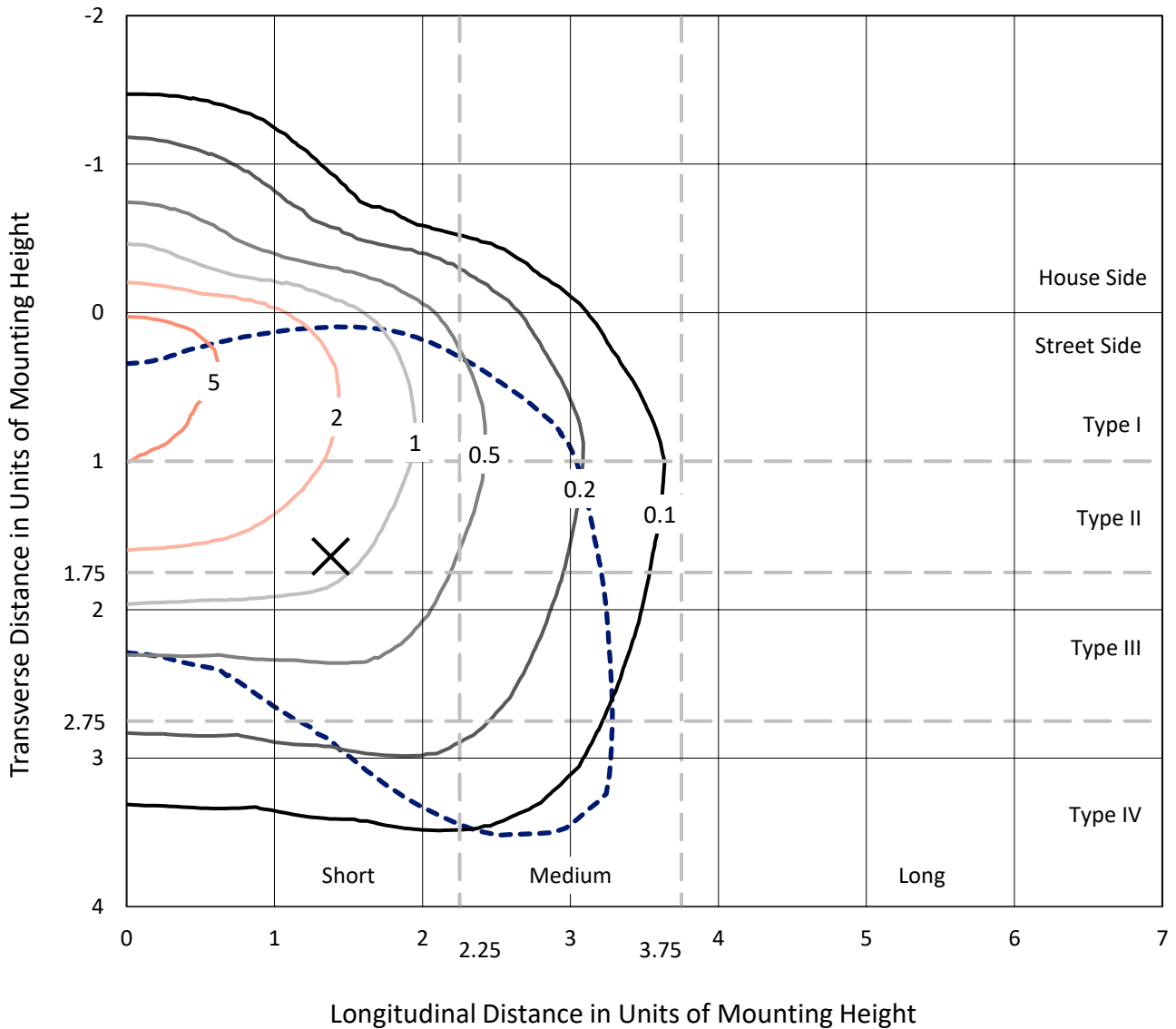
Lumens per Lamp: N/A  
Luminaire Lumens: 11784.8 lumens  
Efficiency: N/A  
Efficacy: 87.9 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 0.33' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B1 - U0 - G2

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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### Iso-Footcandle Lines of Horizontal Illumination

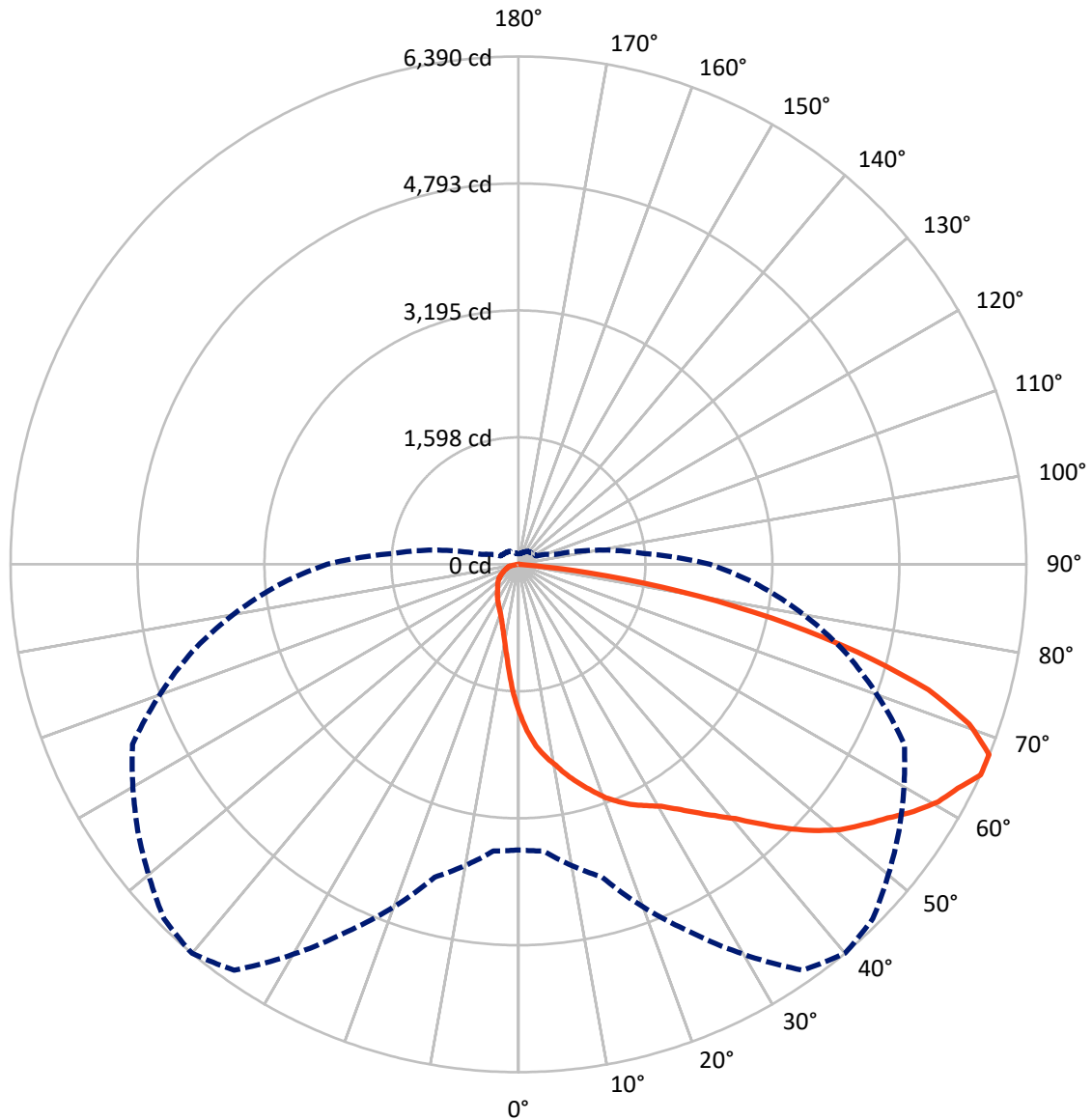
✕ Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 6.8 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral      - - - Horizontal Cone Through 65-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1410.9	0.0	1410.9
	% Fixture	12.0	0.0	12.0
<b>Street Side</b>	Lumens	10373.9	0.0	10373.9
	% Fixture	88.0	0.0	88.0
<b>Total</b>	Lumens	11784.8	0.0	11784.8
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	175.4	1.5
10°-20°	527.3	4.5
20°-30°	907.0	7.7
30°-40°	1371.1	11.6
40°-50°	2004.8	17.0
50°-60°	2560.6	21.7
60°-70°	2555.5	21.7
70°-80°	1498.5	12.7
80°-90°	184.6	1.6
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°	11784.8	100.0
0°-180°	11784.8	100.0



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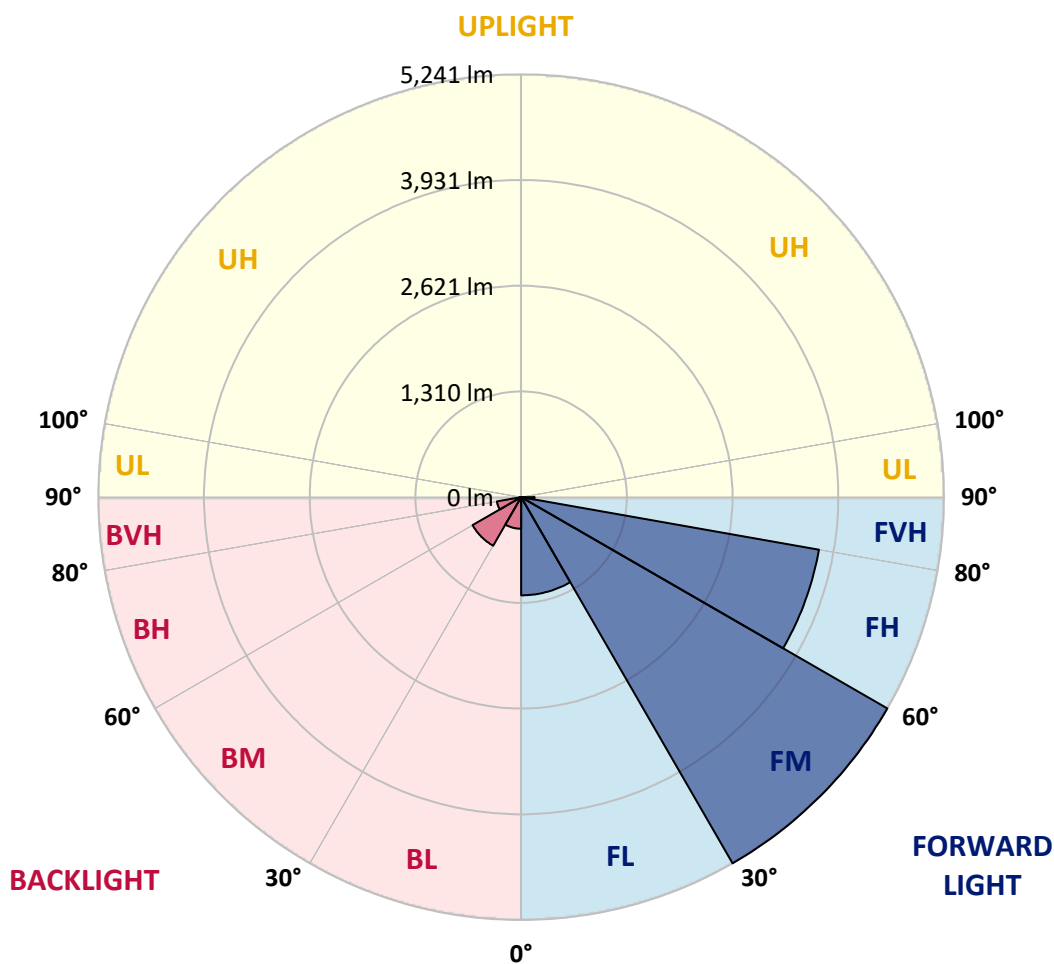
CATALOG NUMBER: EMM2-HSN-SA3B-830-U-T4W-HSS

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1217.2	10.3			
FM (30°-60°)	5241.3	44.5			
FH (60°-80°)	3748.5	31.8			G2/5000
FVH (80°-90°)	166.8	1.4			G2/225
BL (0°-30°)	392.4	3.3	B1/500		
BM (30°-60°)	695.2	5.9	B1/1000		
BH (60°-80°)	305.5	2.6	B1/500		G1/500
BVH (80°-90°)	17.8	0.2			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G2**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	1873.3	1873.3	1873.3	1873.3	1873.3	1873.3	1873.3	1873.3	1873.3	1873.3	1873.3
2.5°	2185.5	2175.5	2155.6	2139.0	2115.8	2095.8	2075.9	2039.4	1992.9	1953.0	1903.2
5°	2401.4	2384.8	2371.5	2351.6	2311.7	2295.1	2281.8	2205.4	2125.7	2042.7	1933.1
7.5°	2554.2	2567.5	2540.9	2511.0	2461.2	2441.3	2421.3	2344.9	2245.3	2125.7	1969.6
10°	2730.2	2733.5	2700.3	2663.8	2610.6	2570.8	2544.2	2451.2	2341.6	2208.8	2009.5
12.5°	2899.6	2899.6	2879.7	2826.5	2756.8	2720.3	2673.8	2567.5	2434.6	2278.5	2056.0
15°	3035.8	3042.4	3025.8	2986.0	2909.6	2859.8	2813.3	2690.4	2521.0	2358.2	2092.5
17.5°	3158.7	3155.4	3145.4	3108.9	3035.8	2995.9	2949.4	2813.3	2620.6	2421.3	2149.0
20°	3241.7	3241.7	3238.4	3218.5	3165.3	3135.4	3079.0	2936.1	2730.2	2514.3	2208.8
22.5°	3304.8	3301.5	3301.5	3304.8	3274.9	3245.0	3221.8	3079.0	2843.1	2594.0	2268.5
25°	3358.0	3354.6	3364.6	3371.3	3358.0	3351.3	3324.8	3215.1	2982.6	2687.0	2328.3
27.5°	3427.7	3437.7	3434.4	3434.4	3431.0	3437.7	3434.4	3341.4	3118.8	2786.7	2391.4
30°	3537.3	3553.9	3544.0	3530.7	3530.7	3534.0	3550.6	3490.8	3278.3	2909.6	2461.2
32.5°	3793.1	3776.5	3706.7	3660.2	3666.9	3670.2	3686.8	3653.6	3437.7	3049.1	2534.3
35°	4085.4	4065.4	3989.0	3882.8	3846.2	3832.9	3829.6	3809.7	3610.4	3198.5	2620.6
37.5°	4464.0	4470.7	4357.7	4204.9	4095.3	4012.3	3995.7	3952.5	3759.9	3334.7	2710.3
40°	4849.3	4822.7	4726.4	4576.9	4361.0	4208.3	4158.4	4098.7	3929.3	3477.5	2796.6
42.5°	5221.3	5171.5	5045.3	4882.5	4630.1	4464.0	4351.1	4274.7	4085.4	3633.6	2879.7
45°	5706.2	5563.4	5337.5	5191.4	4875.9	4739.7	4636.7	4467.3	4271.4	3789.8	2979.3
47.5°	6088.2	5812.5	5606.6	5543.5	5131.6	5005.4	4912.4	4676.6	4460.7	3965.8	3082.3
50°	6018.4	5849.0	5799.2	5742.8	5324.3	5247.9	5161.5	4915.7	4653.3	4151.8	3181.9
52.5°	5839.1	5859.0	5922.1	5825.8	5493.7	5440.5	5384.0	5171.5	4846.0	4304.6	3271.6
55°	5696.3	5736.1	5905.5	5875.6	5696.3	5636.5	5596.6	5423.9	5032.0	4444.1	3348.0
57.5°	5437.2	5404.0	5616.5	5962.0	5912.2	5865.7	5825.8	5689.6	5221.3	4543.7	3397.8
60°	5028.7	4905.8	5191.4	5855.7	6061.6	6068.3	6045.0	5888.9	5374.1	4543.7	3371.3
62.5°	4454.0	4337.8	4689.9	5500.3	6141.3	6204.4	6191.2	5958.7	5440.5	4444.1	3268.3
65°	3593.8	3620.4	4075.4	5098.4	6234.3	6390.4	6307.4	5845.7	5357.5	4251.4	3035.8
67.5°	2869.7	2949.4	3358.0	4576.9	6191.2	6387.1	6270.9	5526.9	5002.1	3982.4	2680.4
70°	2265.2	2318.4	2657.1	3872.8	5812.5	6018.4	5872.3	5038.6	4400.9	3567.2	2228.7
72.5°	1770.3	1820.1	2109.1	3098.9	5154.9	5394.0	5211.3	4381.0	3650.3	3025.8	1770.3
75°	1345.2	1381.7	1597.6	2388.1	4105.3	4404.2	4271.4	3507.4	2849.8	2394.8	1355.1
77.5°	866.9	916.7	1159.2	1674.0	2899.6	3258.3	3274.9	2620.6	2049.3	1730.5	996.4
80°	574.6	594.5	744.0	1089.4	1783.6	2062.6	2158.9	1770.3	1308.6	1102.7	717.4
82.5°	239.1	265.7	355.4	548.0	893.5	896.8	1026.3	747.3	531.4	468.3	302.3
85°	6.6	13.3	10.0	26.6	23.3	36.5	43.2	59.8	43.2	46.5	46.5
87.5°	0.0	0.0	3.3	3.3	6.6	6.6	6.6	6.6	6.6	10.0	6.6
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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CATALOG NUMBER: EMM2-HSN-SA3B-830-U-T4W-HSS

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1873.3	1873.3	1873.3	1873.3	1873.3	1873.3	1873.3	1873.3	1873.3	1873.3	1873.3
2.5°	1879.9	1850.0	1790.3	1743.8	1693.9	1657.4	1624.2	1587.6	1564.4	1567.7	1544.5
5°	1879.9	1823.5	1703.9	1597.6	1501.3	1431.5	1355.1	1295.4	1252.2	1245.5	1265.5
7.5°	1889.9	1796.9	1617.5	1458.1	1325.3	1215.6	1135.9	1076.1	1046.3	1026.3	1023.0
10°	1899.9	1777.0	1537.8	1335.2	1169.1	1049.6	979.8	913.4	880.2	876.9	866.9
12.5°	1906.5	1753.7	1464.8	1212.3	1039.6	926.7	856.9	803.8	777.2	777.2	773.9
15°	1929.8	1747.1	1388.4	1119.3	940.0	830.4	770.6	727.4	710.8	700.8	697.5
17.5°	1949.7	1733.8	1321.9	1026.3	850.3	754.0	697.5	667.6	651.0	644.4	641.0
20°	1979.6	1727.1	1258.8	949.9	783.9	690.9	647.7	621.1	611.1	604.5	604.5
22.5°	2009.5	1720.5	1195.7	883.5	727.4	644.4	604.5	581.3	571.3	568.0	564.6
25°	2046.0	1717.2	1142.6	827.0	677.6	607.8	571.3	551.4	538.1	531.4	531.4
27.5°	2082.5	1720.5	1089.4	770.6	634.4	574.6	538.1	514.8	504.9	491.6	494.9
30°	2132.4	1723.8	1046.3	724.1	597.9	541.4	508.2	478.3	465.0	458.4	458.4
32.5°	2182.2	1737.1	1003.1	680.9	561.3	514.8	475.0	448.4	431.8	428.5	425.1
35°	2235.3	1747.1	963.2	644.4	531.4	484.9	445.1	418.5	405.2	401.9	401.9
37.5°	2295.1	1763.7	933.3	611.1	501.5	455.0	418.5	391.9	382.0	378.6	378.6
40°	2358.2	1790.3	910.1	581.3	478.3	428.5	395.3	372.0	365.4	362.0	362.0
42.5°	2421.3	1813.5	890.1	558.0	455.0	405.2	378.6	355.4	345.4	345.4	345.4
45°	2481.1	1830.1	870.2	534.8	431.8	388.6	358.7	338.8	328.8	328.8	328.8
47.5°	2534.3	1846.7	840.3	511.5	408.5	365.4	342.1	322.2	312.2	312.2	312.2
50°	2590.7	1856.7	807.1	481.6	385.3	348.8	325.5	302.3	295.6	292.3	292.3
52.5°	2637.2	1856.7	763.9	451.7	358.7	325.5	305.6	285.6	275.7	269.0	269.0
55°	2670.4	1856.7	717.4	415.2	332.1	305.6	285.6	265.7	252.4	242.5	242.5
57.5°	2690.4	1846.7	664.3	372.0	305.6	279.0	265.7	242.5	215.9	196.0	189.3
60°	2673.8	1816.8	607.8	325.5	275.7	255.8	245.8	215.9	179.4	169.4	169.4
62.5°	2604.0	1747.1	551.4	285.6	252.4	232.5	222.5	189.3	162.8	152.8	152.8
65°	2408.0	1577.7	481.6	249.1	225.9	212.6	199.3	169.4	146.1	132.9	132.9
67.5°	2122.4	1361.8	401.9	219.2	202.6	192.6	182.7	152.8	129.5	116.3	116.3
70°	1720.5	1099.4	342.1	192.6	179.4	172.7	162.8	139.5	112.9	103.0	103.0
72.5°	1351.8	863.6	285.6	172.7	166.1	152.8	146.1	122.9	103.0	93.0	93.0
75°	1006.4	644.4	252.4	152.8	152.8	136.2	132.9	109.6	89.7	83.0	83.0
77.5°	740.7	478.3	219.2	132.9	132.9	119.6	112.9	96.3	83.0	76.4	76.4
80°	501.5	325.5	162.8	99.6	99.6	96.3	89.7	83.0	69.8	63.1	59.8
82.5°	212.6	136.2	79.7	49.8	46.5	36.5	29.9	23.3	23.3	19.9	19.9
85°	36.5	16.6	16.6	13.3	10.0	10.0	10.0	6.6	6.6	6.6	6.6
87.5°	6.6	6.6	6.6	6.6	6.6	6.6	3.3	3.3	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-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**

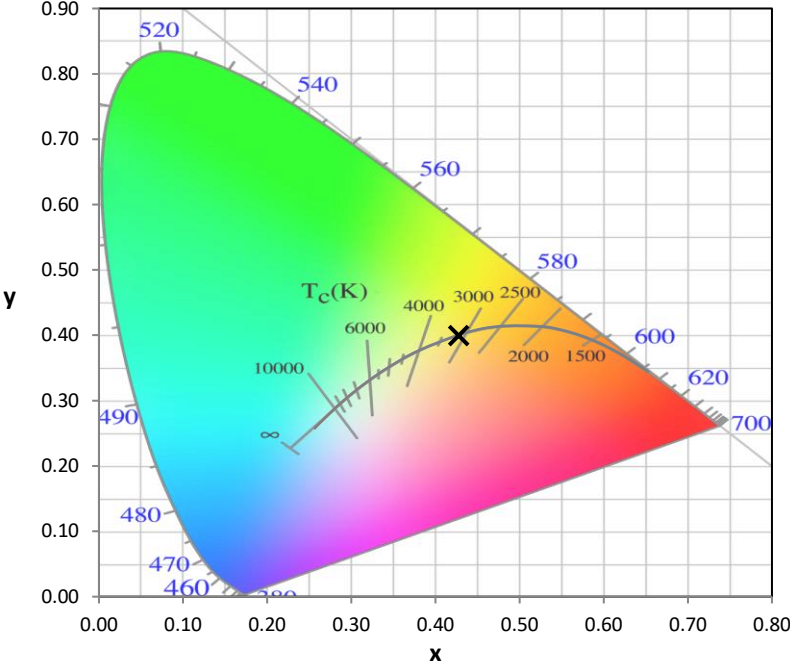
Stabilization Time: 22M  
 Operation Time: 1H 22M  
 Sphere Temperature (°C): 24.3

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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



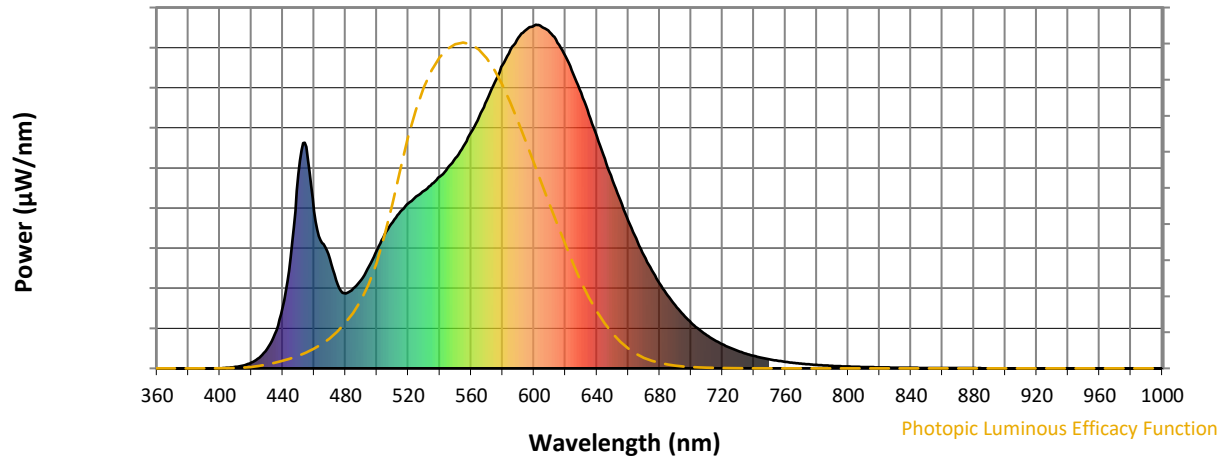
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



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

$\lambda$ (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			

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**

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



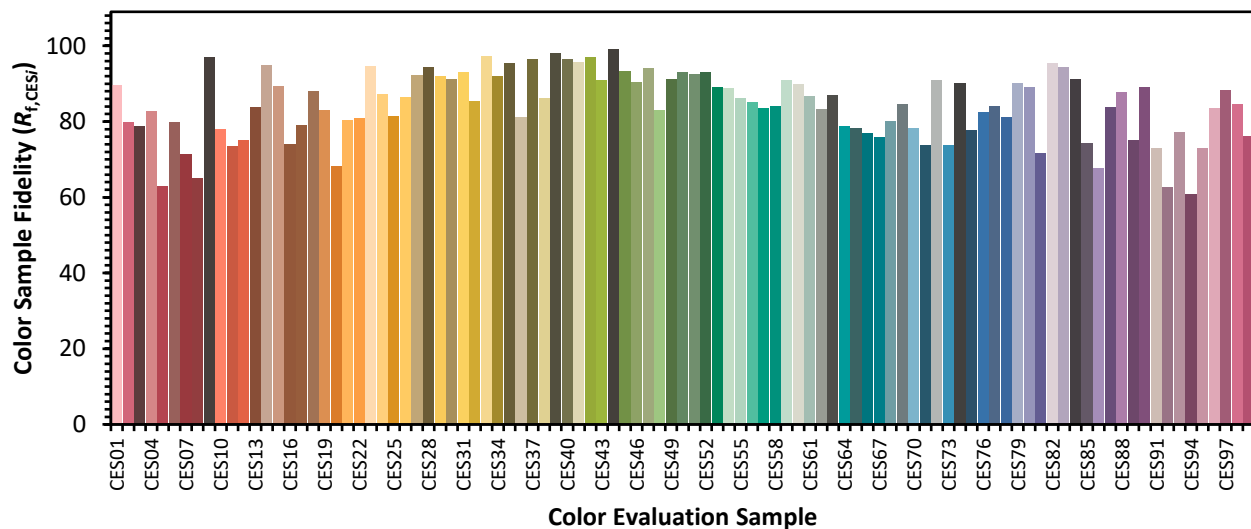
**Color Vector Graphics**





**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)