

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: P871212

Luminaire Tested: **EMM2-HSN-SA2B-830-U-T3-HSS**

Issue Date: 09/05/2024



**Test Information**

Test Method: LM-79-08  
Report Number: P871212  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 09/05/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: EMM2-HSN-SA2B-830-U-T3-HSS  
Description: EPIC MODERN SHORT HOUSING DISCRETE LED ARRAYS 100W 80CRI 3000K  
FITXURE w/ TYPE III DISTRIBUTION OPTIC AND HOUSE SIDE SHIELD  
Light Source: (20) 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

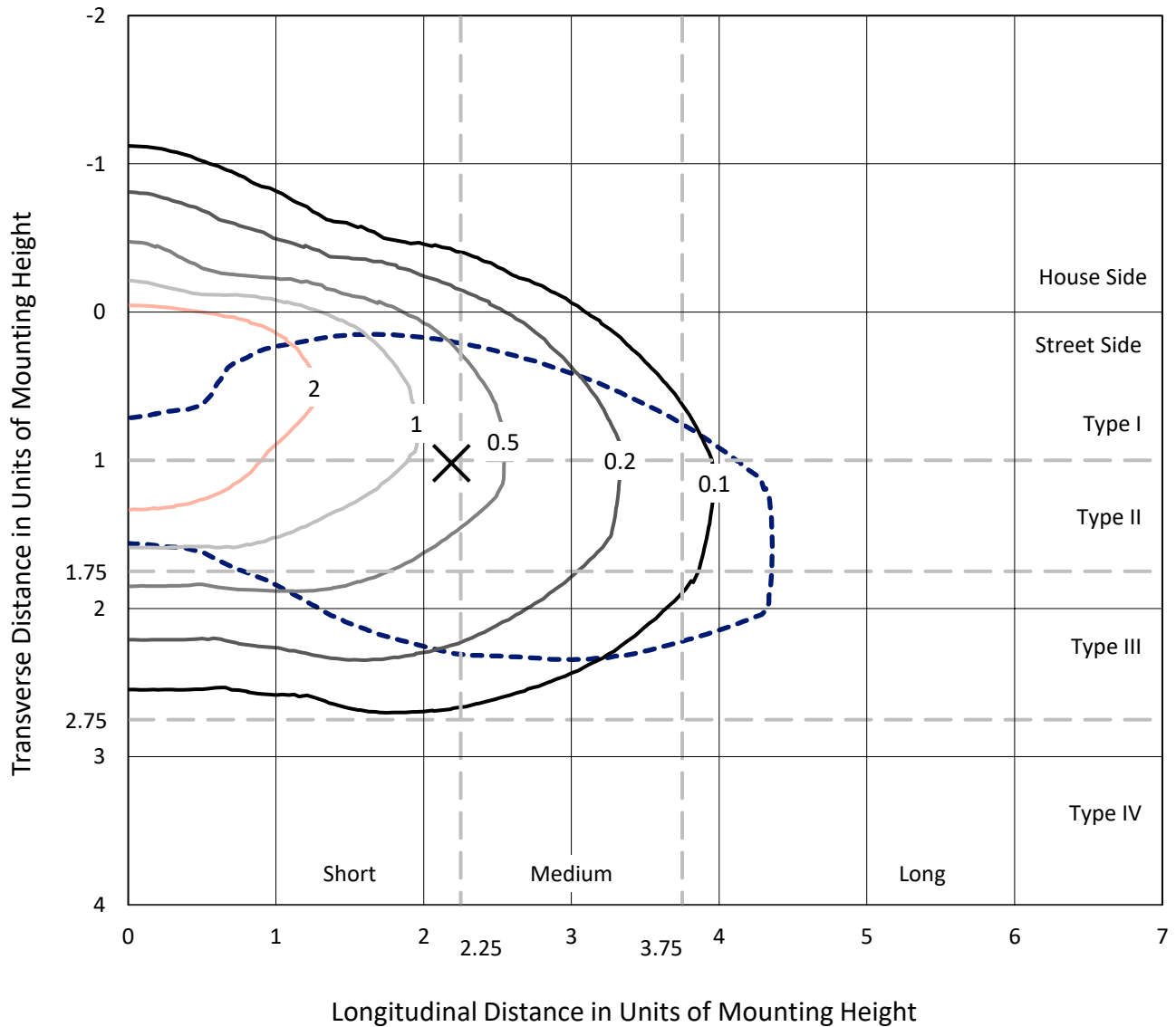
Lumens per Lamp: N/A  
Luminaire Lumens: 7834.6 lumens  
Efficiency: N/A  
Efficacy: 87.1 lumens/watt  
Luminous Opening: Rectangular (W 0.67' x L: 0.33' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B1 - U0 - G2

Input Watts (W): 90  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: 0.99  
Total Harmonic Distortion (THDi): 6.20%  
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

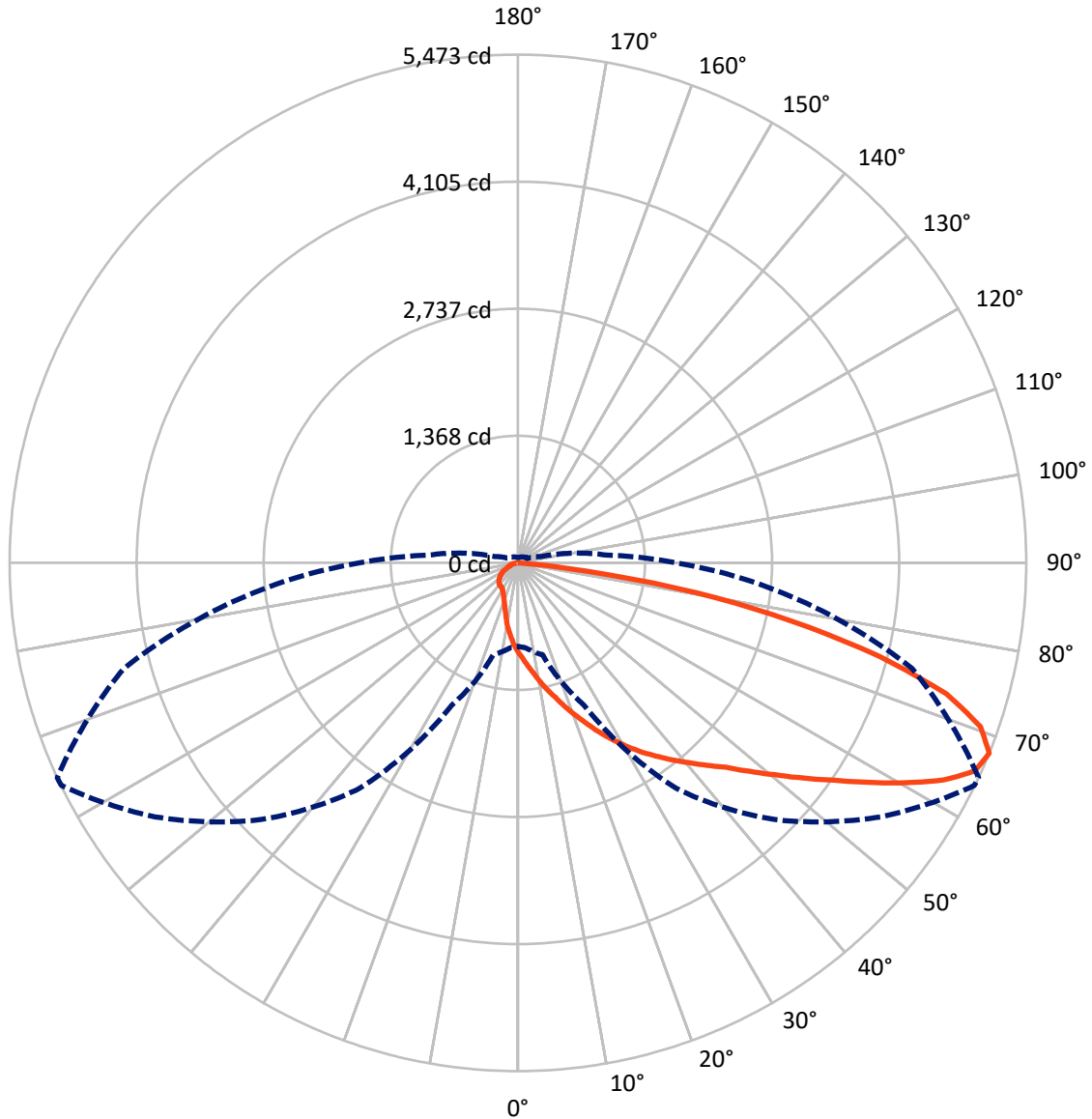
× Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 4.5 fc  
 Type III - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 65-Deg Lateral    - - - Horizontal Cone Through 67.5-Deg Vertical

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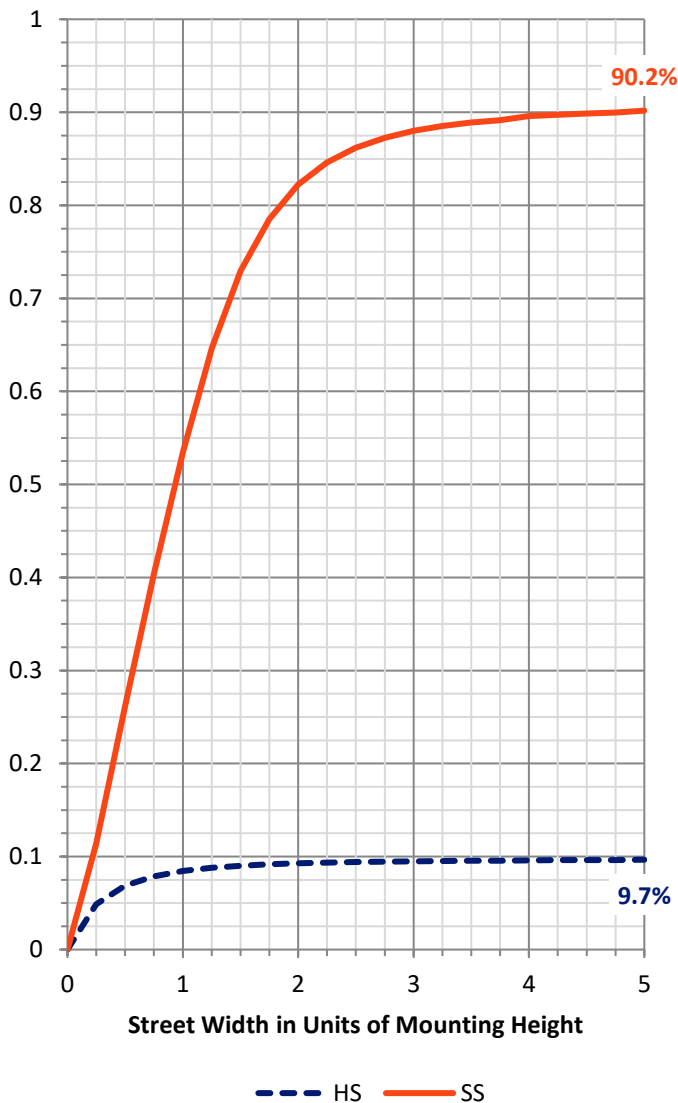
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	762.5	0.0	762.5
	% Fixture	9.7	0.0	9.7
<b>Street Side</b>	Lumens	7072.0	0.0	7072.0
	% Fixture	90.3	0.0	90.3
<b>Total</b>	Lumens	7834.6	0.0	7834.6
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	94.7	1.2
10°-20°	314.4	4.0
20°-30°	572.2	7.3
30°-40°	885.5	11.3
40°-50°	1338.6	17.1
50°-60°	1741.4	22.2
60°-70°	1717.9	21.9
70°-80°	1045.7	13.3
80°-90°	124.3	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°	7834.6	100.0
0°-180°	7834.6	100.0

**Coefficient of Utilization**



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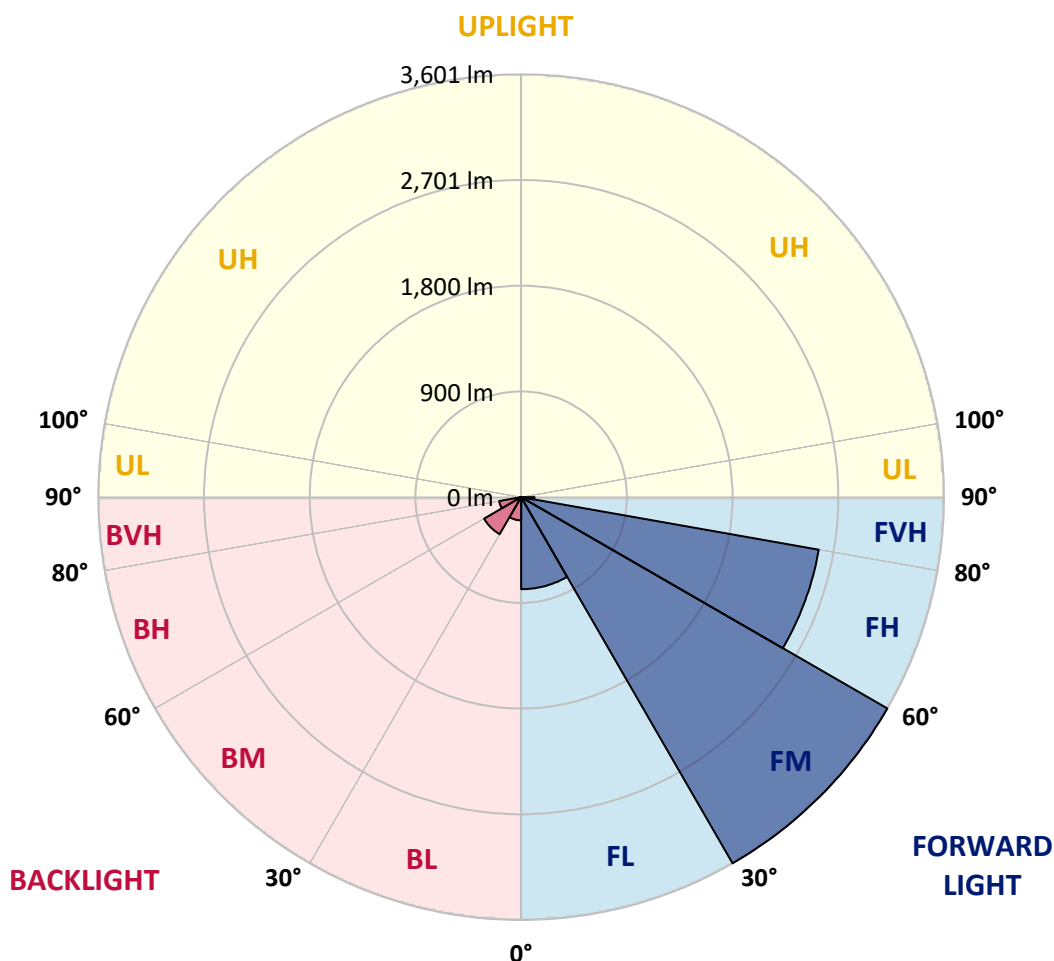
CATALOG NUMBER: EMM2-HSN-SA2B-830-U-T3-HSS

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	783.9	10.0			
FM (30°-60°)	3600.8	46.0			
FH (60°-80°)	2573.7	32.9			G2/5000
FVH (80°-90°)	113.6	1.5			G2/225
BL (0°-30°)	197.3	2.5	B1/500		
BM (30°-60°)	364.7	4.7	B1/1000		
BH (60°-80°)	189.9	2.4	B1/500		G1/500
BVH (80°-90°)	10.7	0.1			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 III Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	64°	65°	75°	85°
0°	968.1	968.1	968.1	968.1	968.1	968.1	968.1	968.1	968.1	968.1	968.1
2.5°	1131.3	1122.4	1129.1	1113.4	1095.5	1082.1	1055.3	1032.9	1030.7	1008.3	983.7
5°	1348.2	1319.1	1321.3	1290.0	1252.0	1211.8	1169.3	1113.4	1113.4	1059.8	1003.9
7.5°	1542.7	1538.2	1518.1	1468.9	1424.2	1361.6	1283.3	1211.8	1196.1	1113.4	1026.2
10°	1730.5	1723.8	1705.9	1667.9	1591.9	1522.6	1424.2	1316.9	1296.8	1178.3	1053.1
12.5°	1880.3	1882.5	1862.4	1831.1	1764.0	1681.3	1551.6	1417.5	1399.6	1240.9	1079.9
15°	2012.2	2010.0	2005.5	1978.7	1913.8	1837.8	1685.8	1529.3	1500.2	1307.9	1106.7
17.5°	2112.8	2108.3	2099.4	2077.0	2045.7	1972.0	1826.6	1647.8	1623.2	1386.2	1138.0
20°	2141.9	2139.6	2139.6	2155.3	2141.9	2097.2	1967.5	1770.7	1743.9	1468.9	1180.5
22.5°	2195.5	2193.3	2191.1	2206.7	2215.7	2211.2	2099.4	1895.9	1871.4	1565.1	1234.2
25°	2264.9	2260.4	2253.7	2269.3	2280.5	2307.3	2231.3	2043.5	2014.4	1676.8	1287.8
27.5°	2356.5	2361.0	2352.0	2349.8	2349.8	2365.5	2347.6	2175.4	2148.6	1784.2	1350.4
30°	2477.3	2484.0	2468.3	2457.1	2437.0	2434.8	2439.2	2323.0	2285.0	1900.4	1415.3
32.5°	2595.7	2602.5	2593.5	2577.9	2526.4	2506.3	2524.2	2448.2	2423.6	2027.9	1498.0
35°	2691.9	2707.5	2707.5	2676.2	2604.7	2593.5	2622.6	2571.2	2553.3	2177.7	1596.4
37.5°	2821.6	2830.5	2821.6	2763.4	2674.0	2687.4	2732.1	2700.8	2689.7	2338.6	1712.6
40°	3098.8	3110.0	3051.8	2913.2	2770.1	2785.8	2864.0	2846.2	2828.3	2497.4	1819.9
42.5°	3485.6	3458.8	3447.6	3139.0	2917.7	2908.8	3007.1	2982.5	2980.3	2658.3	1918.3
45°	3740.5	3749.4	3693.5	3400.6	3228.5	3060.8	3165.9	3156.9	3139.0	2821.6	2036.8
47.5°	3917.1	3897.0	3758.4	3617.5	3651.0	3259.8	3342.5	3364.9	3353.7	3007.1	2182.1
50°	3990.9	3970.8	3879.1	3785.2	3825.4	3487.8	3523.6	3597.4	3586.2	3194.9	2305.1
52.5°	3899.2	3874.6	3881.3	3905.9	3885.8	3666.7	3747.2	3863.4	3850.0	3414.0	2448.2
55°	3315.7	3380.5	3630.9	3881.3	3874.6	3803.1	3986.4	4156.3	4129.5	3642.1	2571.2
57.5°	2674.0	2709.8	3027.3	3704.7	3838.8	3917.1	4259.2	4469.3	4460.4	3870.1	2682.9
60°	2126.2	2164.2	2405.7	3338.0	3756.1	4035.6	4538.6	4815.9	4806.9	4100.4	2763.4
62.5°	1690.3	1690.3	1904.9	2810.4	3597.4	4104.9	4760.0	5164.7	5149.0	4286.0	2783.6
65°	1216.3	1231.9	1392.9	2260.4	3340.3	4087.0	4867.3	5412.8	5403.9	4391.1	2741.1
67.5°	898.8	916.7	1024.0	1694.7	2960.2	3908.2	4768.9	5468.7	5473.2	4393.3	2602.5
70°	702.0	706.5	787.0	1178.3	2425.8	3510.2	4400.0	5283.2	5283.2	4283.8	2396.8
72.5°	534.4	538.8	608.1	802.6	1786.4	2902.1	3847.8	4791.3	4824.8	3993.1	2092.7
75°	413.6	422.6	469.5	576.8	1120.1	2063.6	3161.4	3923.8	4015.5	3429.7	1723.8
77.5°	319.7	328.7	366.7	422.6	652.8	1272.2	2222.4	2933.4	3016.1	2700.8	1330.3
80°	257.1	261.6	286.2	317.5	395.7	655.1	1357.1	1927.2	1951.8	1835.6	880.9
82.5°	118.5	127.4	154.3	174.4	196.7	304.1	579.1	713.2	744.5	728.9	362.2
85°	13.4	13.4	15.7	17.9	20.1	31.3	40.2	35.8	35.8	42.5	38.0
87.5°	0.0	0.0	0.0	2.2	4.5	4.5	6.7	6.7	6.7	6.7	6.7
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°	968.1	968.1	968.1	968.1	968.1	968.1	968.1	968.1	968.1	968.1	968.1
2.5°	970.3	954.7	925.6	901.0	878.7	856.3	845.1	818.3	811.6	816.1	800.4
5°	974.8	943.5	883.1	827.2	780.3	735.6	697.6	657.3	648.4	635.0	628.3
7.5°	981.5	934.6	840.7	753.5	681.9	617.1	570.1	538.8	514.2	507.5	505.3
10°	990.5	923.4	793.7	684.2	585.8	518.7	476.2	453.9	444.9	438.2	440.4
12.5°	997.2	912.2	749.0	605.9	509.8	449.4	429.3	411.4	406.9	404.7	404.7
15°	1006.1	901.0	695.3	536.6	444.9	409.1	389.0	382.3	382.3	380.1	380.1
17.5°	1017.3	892.1	650.6	482.9	406.9	373.4	364.4	355.5	355.5	355.5	353.3
20°	1039.6	887.6	610.4	438.2	373.4	351.0	337.6	330.9	328.7	326.4	326.4
22.5°	1062.0	887.6	565.7	404.7	351.0	326.4	313.0	306.3	304.1	304.1	304.1
25°	1093.3	885.4	529.9	375.6	330.9	301.8	288.4	281.7	277.2	277.2	275.0
27.5°	1129.1	885.4	498.6	353.3	308.5	279.5	263.8	257.1	250.4	250.4	248.2
30°	1164.8	889.8	471.8	335.4	286.2	259.4	239.2	230.3	225.8	223.6	223.6
32.5°	1211.8	903.3	453.9	322.0	266.1	239.2	219.1	210.2	205.7	203.5	203.5
35°	1283.3	936.8	456.1	315.2	252.6	221.3	201.2	190.0	187.8	187.8	185.6
37.5°	1359.4	968.1	462.8	310.8	239.2	207.9	187.8	176.6	174.4	174.4	174.4
40°	1424.2	994.9	471.8	308.5	228.1	194.5	176.6	167.7	163.2	163.2	163.2
42.5°	1489.0	1010.6	474.0	301.8	221.3	183.3	167.7	158.7	154.3	156.5	156.5
45°	1553.9	1021.8	467.3	292.9	214.6	174.4	158.7	149.8	145.3	145.3	145.3
47.5°	1632.1	1046.3	456.1	279.5	210.2	167.7	149.8	140.9	138.6	138.6	138.6
50°	1710.4	1066.5	447.2	263.8	199.0	158.7	143.1	131.9	129.7	129.7	129.7
52.5°	1775.2	1075.4	436.0	243.7	187.8	149.8	134.1	123.0	118.5	118.5	118.5
55°	1824.4	1077.6	420.3	228.1	172.2	140.9	125.2	114.0	109.6	107.3	107.3
57.5°	1864.6	1075.4	404.7	212.4	158.7	129.7	114.0	105.1	98.4	96.1	96.1
60°	1887.0	1068.7	382.3	192.3	140.9	118.5	105.1	93.9	89.4	87.2	87.2
62.5°	1873.6	1050.8	351.0	161.0	127.4	107.3	96.1	87.2	80.5	78.3	78.3
65°	1811.0	1015.0	310.8	131.9	114.0	96.1	87.2	78.3	69.3	67.1	67.1
67.5°	1701.4	954.7	257.1	111.8	105.1	87.2	78.3	69.3	62.6	58.1	58.1
70°	1549.4	874.2	201.2	96.1	93.9	80.5	71.5	62.6	55.9	51.4	51.4
72.5°	1332.5	742.3	149.8	82.7	82.7	73.8	64.8	58.1	51.4	47.0	47.0
75°	1077.6	561.2	114.0	76.0	73.8	67.1	58.1	51.4	47.0	42.5	42.5
77.5°	787.0	373.4	93.9	69.3	69.3	60.4	53.7	47.0	42.5	40.2	40.2
80°	478.5	214.6	67.1	53.7	53.7	51.4	44.7	40.2	38.0	33.5	31.3
82.5°	194.5	82.7	35.8	26.8	26.8	24.6	15.7	13.4	13.4	13.4	11.2
85°	20.1	13.4	8.9	6.7	6.7	6.7	4.5	4.5	4.5	4.5	4.5
87.5°	6.7	6.7	4.5	4.5	4.5	4.5	2.2	2.2	2.2	2.2	2.2
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

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**

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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**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)