

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: P871244

Luminaire Tested: **EMM2-HSN-SA1A-830-U-T4W**

Issue Date: 09/05/2024



**Test Information**

Test Method: LM-79-08  
Report Number: P871244  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 09/05/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: EMM2-HSN-SA1A-830-U-T4W  
Description: EPIC MODERN SHORT HOUSING DISCRETE LED ARRAYS 40W 80CRI 3000K  
FITXURE w/ TYPE IV WIDE DISTRIBUTION OPTIC  
Light Source: (10) 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

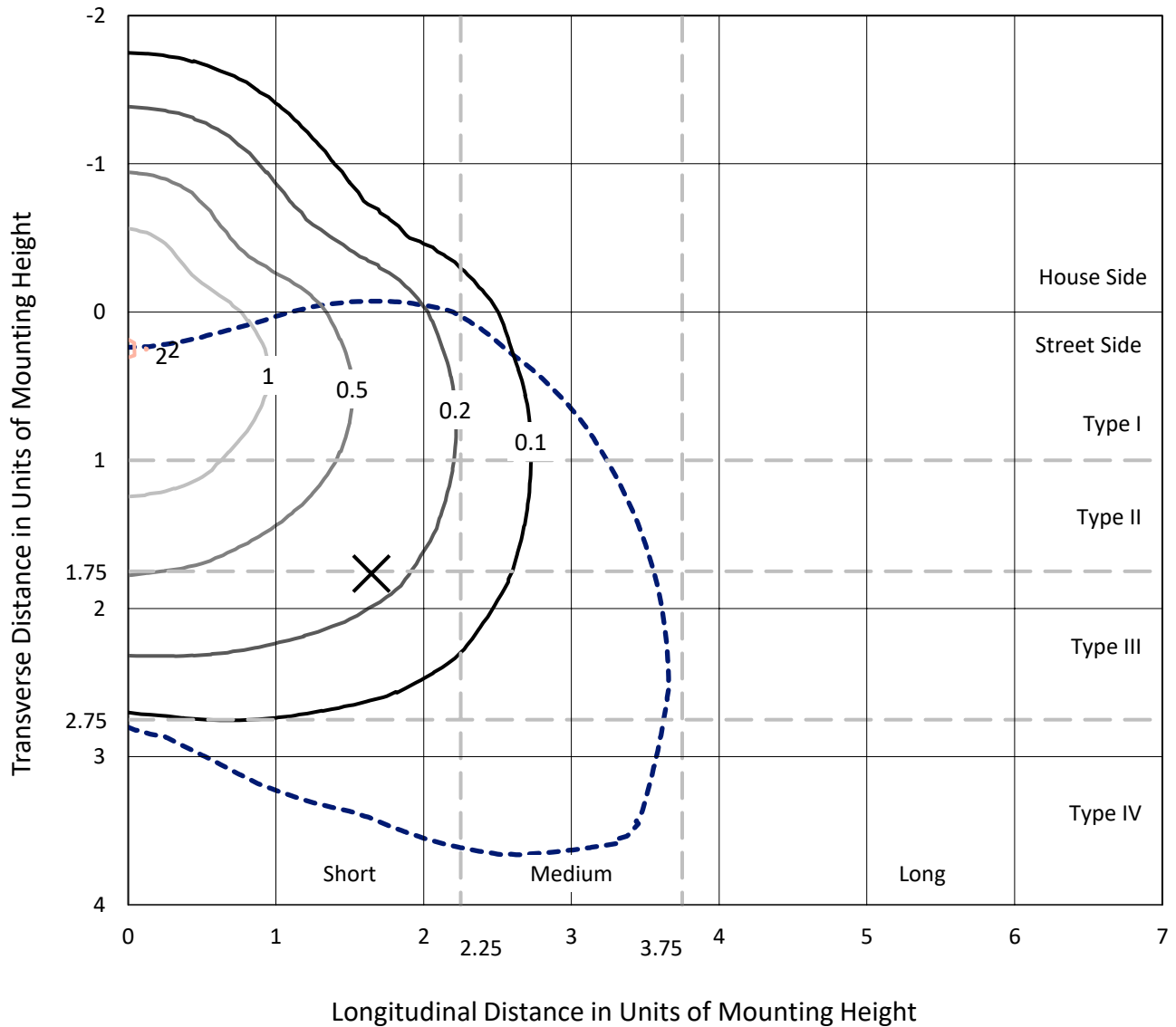
Lumens per Lamp: N/A  
Luminaire Lumens: 4265 lumens  
Efficiency: N/A  
Efficacy: 130.0 lumens/watt  
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B1 - U0 - G1

Input Watts (W): 32.8  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: 0.99  
Total Harmonic Distortion (THDi): 9.76%  
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

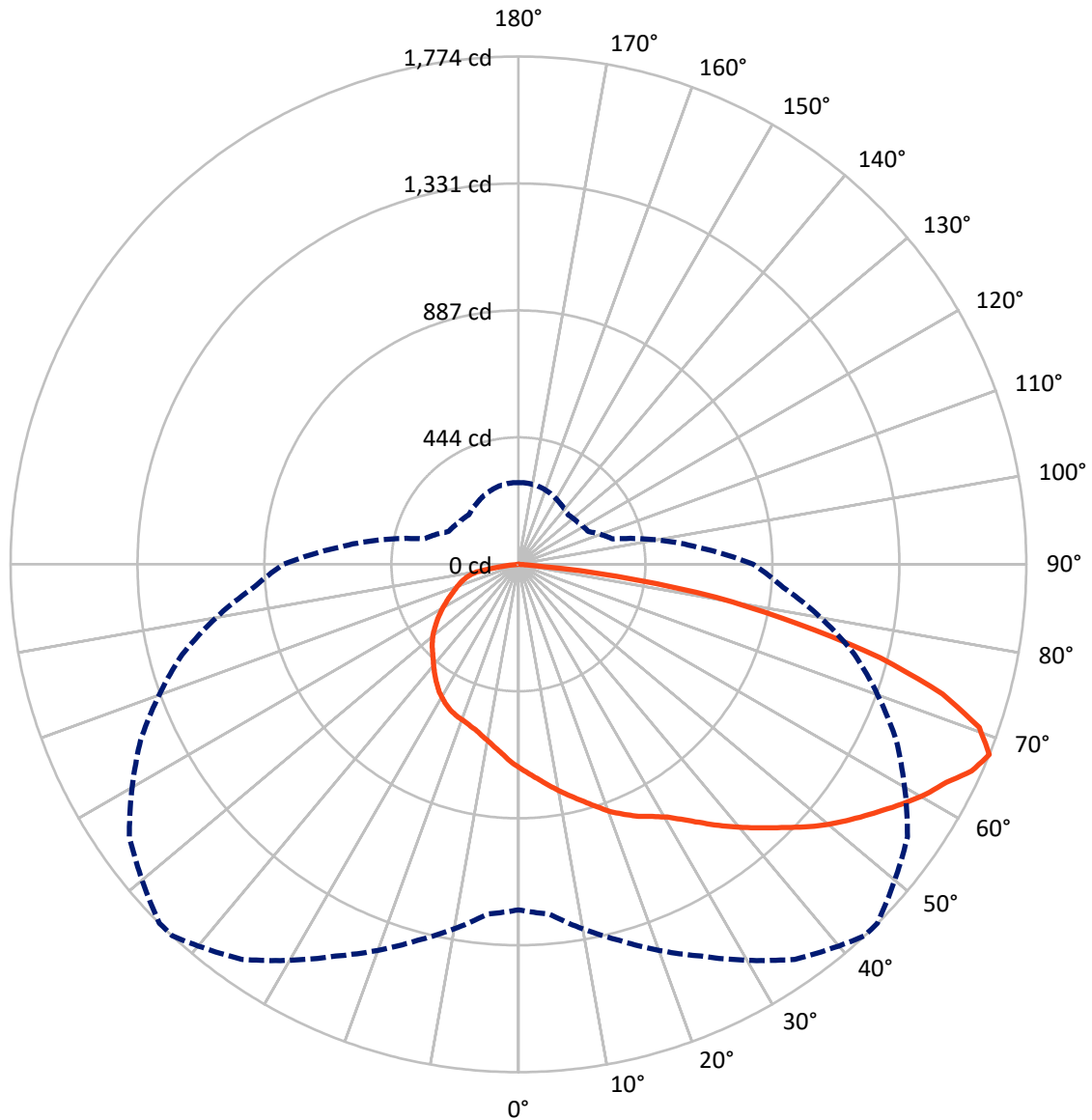
× Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 2 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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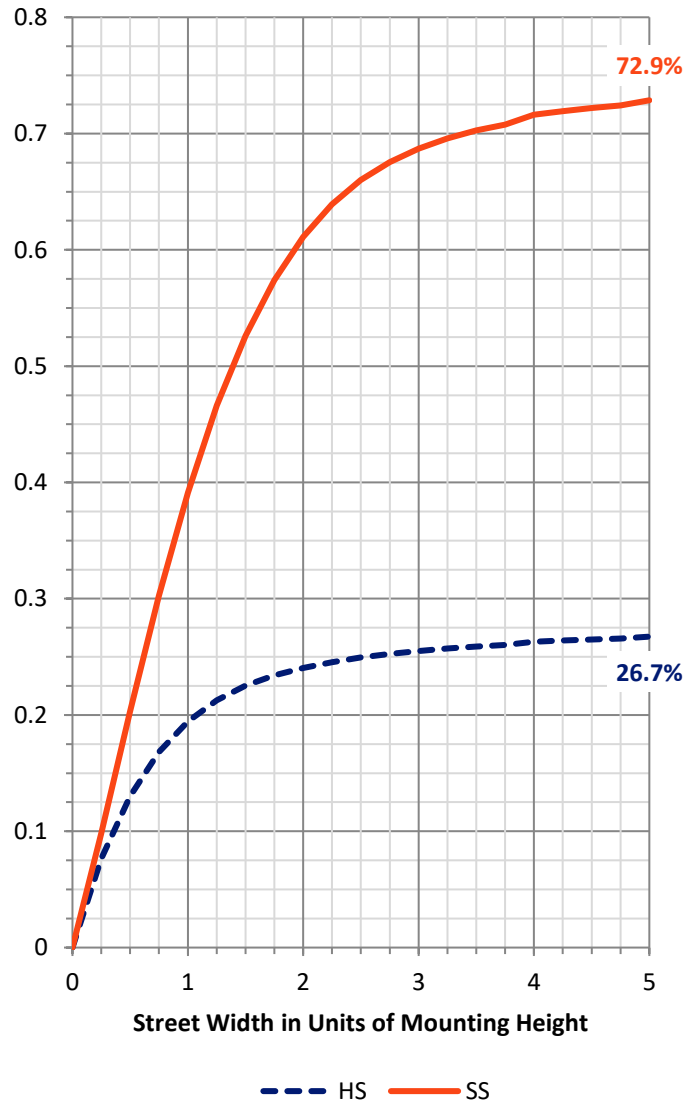
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1147.3	0.0	1147.3
	% Fixture	26.9	0.0	26.9
<b>Street Side</b>	Lumens	3117.7	0.0	3117.7
	% Fixture	73.1	0.0	73.1
<b>Total</b>	Lumens	4265.0	0.0	4265.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	68.1	1.6
10°-20°	208.1	4.9
20°-30°	355.0	8.3
30°-40°	517.8	12.1
40°-50°	695.6	16.3
50°-60°	851.5	20.0
60°-70°	896.1	21.0
70°-80°	585.0	13.7
80°-90°	87.8	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°	4265.0	100.0
0°-180°	4265.0	100.0



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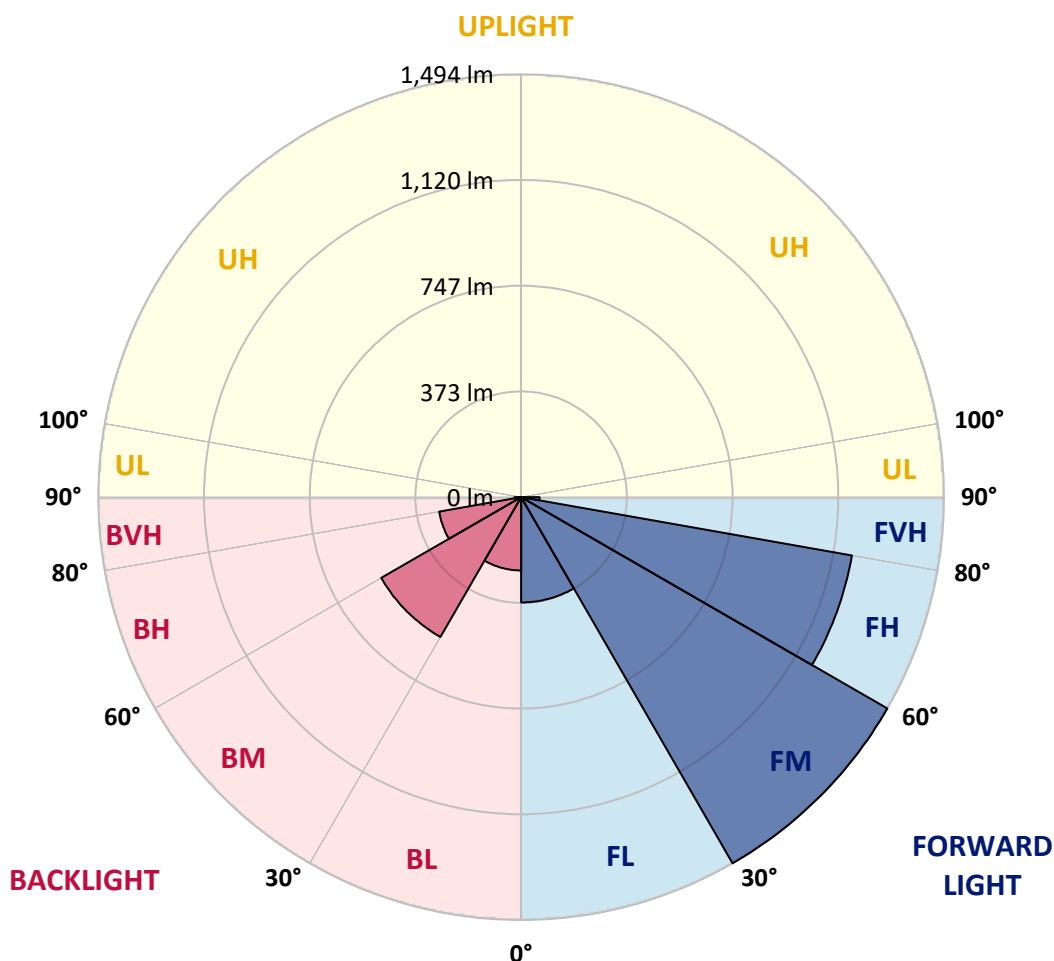
CATALOG NUMBER: EMM2-HSN-SA1A-830-U-T4W

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	372.2	8.7			
FM	(30°-60°)	1494.0	35.0			
FH	(60°-80°)	1186.7	27.8			G1/1800
FVH	(80°-90°)	64.7	1.5			G1/100
BL	(0°-30°)	259.0	6.1	B1/500		
BM	(30°-60°)	570.8	13.4	B1/1000		
BH	(60°-80°)	294.4	6.9	B1/500		G1/500
BVH	(80°-90°)	23.0	0.5			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G1**

Type IV Short





REPORT NUMBER: P871244

CATALOG NUMBER: EMM2-HSN-SA1A-830-U-T4W

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	43°	45°	55°	65°	75°	85°
0°	712.0	712.0	712.0	712.0	712.0	712.0	712.0	712.0	712.0	712.0	712.0
2.5°	744.7	743.9	741.3	739.6	734.4	733.5	733.5	728.4	722.3	718.9	715.4
5°	778.4	774.1	772.4	768.9	760.3	755.1	756.8	747.3	735.3	726.6	717.1
7.5°	808.6	806.9	800.8	796.5	786.2	781.0	779.3	764.6	749.1	736.1	720.6
10°	844.9	840.5	837.1	828.5	814.6	806.9	804.3	785.3	765.5	748.2	727.5
12.5°	877.6	872.5	868.2	859.5	845.7	832.8	829.3	807.7	782.7	759.4	733.5
15°	902.7	903.5	899.2	891.5	875.9	860.4	857.8	829.3	799.1	770.6	739.6
17.5°	926.0	929.4	926.8	921.7	906.1	890.6	888.0	856.1	819.8	783.6	746.5
20°	948.4	948.4	947.5	944.1	932.9	922.5	917.3	885.4	839.7	797.4	756.0
22.5°	961.4	964.8	964.8	964.8	957.9	949.3	947.5	916.5	866.4	814.6	764.6
25°	981.2	985.5	985.5	983.8	977.8	975.2	972.6	943.2	892.3	834.5	774.1
27.5°	1023.5	1022.6	1015.7	1007.1	998.5	997.6	994.1	973.4	922.5	856.1	787.0
30°	1082.2	1083.9	1075.3	1048.5	1028.7	1024.4	1025.2	1007.1	957.9	881.1	801.7
32.5°	1171.9	1171.9	1138.3	1103.7	1075.3	1064.0	1061.5	1045.9	994.1	908.7	818.1
35°	1239.2	1236.6	1217.7	1177.1	1141.7	1109.8	1105.5	1084.8	1034.7	939.8	836.2
37.5°	1290.1	1295.3	1280.7	1249.6	1215.1	1159.8	1151.2	1121.9	1071.8	970.0	854.3
40°	1388.5	1375.6	1340.2	1311.7	1270.3	1209.0	1201.3	1165.0	1109.8	1003.6	876.8
42.5°	1460.2	1442.0	1401.5	1363.5	1311.7	1258.2	1251.3	1211.6	1153.8	1041.6	900.1
45°	1562.8	1522.3	1466.2	1432.5	1359.2	1311.7	1303.1	1259.9	1199.5	1082.2	929.4
47.5°	1662.1	1591.3	1531.8	1516.2	1411.0	1369.5	1362.6	1312.6	1248.7	1126.2	957.9
50°	1649.1	1602.5	1582.7	1568.0	1455.8	1423.9	1417.0	1366.1	1298.8	1172.8	986.4
52.5°	1616.4	1620.7	1621.5	1586.1	1498.1	1474.8	1467.9	1423.9	1350.6	1213.3	1014.0
55°	1650.9	1656.0	1655.2	1601.7	1547.3	1525.7	1521.4	1482.6	1400.6	1251.3	1033.8
57.5°	1703.5	1686.3	1683.7	1640.5	1600.0	1580.1	1574.9	1541.3	1442.9	1278.9	1049.4
60°	1713.0	1678.5	1689.7	1649.1	1639.7	1633.6	1631.9	1592.2	1482.6	1301.4	1055.4
62.5°	1606.9	1600.8	1644.8	1628.4	1660.4	1677.6	1678.5	1628.4	1504.2	1310.0	1049.4
65°	1425.6	1449.8	1544.7	1592.2	1691.4	1740.6	1738.9	1650.0	1501.6	1285.0	1012.3
67.5°	1207.3	1226.3	1360.0	1510.2	1684.5	1774.3	1773.4	1659.5	1456.7	1215.9	928.6
70°	915.6	975.2	1165.0	1362.6	1591.3	1707.8	1722.5	1606.0	1354.0	1089.9	801.7
72.5°	696.4	705.9	935.5	1142.6	1424.8	1549.9	1547.3	1435.1	1182.3	918.2	667.9
75°	494.5	515.2	704.2	885.4	1167.6	1306.5	1300.5	1177.1	943.2	714.5	510.9
77.5°	368.5	376.3	515.2	656.7	873.3	998.5	995.9	869.9	693.8	524.7	380.6
80°	269.2	282.2	371.1	458.2	592.0	699.9	696.4	577.3	445.3	366.8	277.9
82.5°	151.0	160.5	215.7	277.0	312.4	346.1	331.4	277.0	202.8	157.9	136.4
85°	4.3	5.2	7.8	9.5	16.4	27.6	30.2	26.8	31.9	19.8	21.6
87.5°	1.7	1.7	1.7	1.7	1.7	2.6	2.6	2.6	2.6	2.6	2.6
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-SA1A-830-U-T4W

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	712.0	712.0	712.0	712.0	712.0	712.0	712.0	712.0	712.0	712.0	712.0
2.5°	713.7	710.2	703.3	699.0	696.4	693.0	687.8	684.3	681.8	685.2	684.3
5°	712.8	705.9	693.8	685.2	676.6	669.7	661.9	655.9	652.4	654.1	653.3
7.5°	712.8	704.2	685.2	671.4	658.5	648.1	639.5	631.7	628.2	629.1	628.2
10°	716.3	704.2	679.2	659.3	642.1	630.0	620.5	613.6	611.0	613.6	614.4
12.5°	719.7	704.2	674.0	649.0	626.5	613.6	604.9	600.6	602.4	603.2	604.1
15°	721.4	703.3	668.8	636.9	611.8	598.0	592.9	592.0	596.3	600.6	601.5
17.5°	725.8	702.5	661.0	624.8	598.9	587.7	585.1	588.5	597.2	603.2	604.9
20°	730.9	704.2	652.4	610.1	586.0	577.3	581.6	589.4	599.8	608.4	610.1
22.5°	736.1	705.1	644.6	597.2	572.2	570.4	579.9	591.1	603.2	611.8	613.6
25°	742.2	705.1	634.3	580.8	558.3	560.9	575.6	590.3	601.5	612.7	614.4
27.5°	748.2	706.8	623.1	562.7	541.1	548.9	567.0	585.1	597.2	608.4	611.0
30°	758.6	710.2	613.6	547.1	523.8	534.2	555.8	576.5	589.4	601.5	604.1
32.5°	768.9	715.4	605.8	530.7	506.6	518.6	542.8	566.1	579.9	591.1	592.9
35°	782.7	722.3	599.8	514.3	489.3	498.8	524.7	550.6	566.1	574.7	579.1
37.5°	797.4	731.8	594.6	499.7	470.3	479.0	506.6	534.2	550.6	559.2	560.9
40°	815.5	744.7	591.1	485.9	452.2	459.1	486.7	516.9	532.5	538.5	541.9
42.5°	835.4	758.6	588.5	472.0	432.4	439.3	468.6	497.9	513.5	518.6	521.2
45°	860.4	776.7	586.8	457.4	416.0	422.0	451.3	480.7	493.6	500.5	503.1
47.5°	883.7	794.8	581.6	440.1	397.8	406.5	433.2	459.1	473.8	478.1	480.7
50°	907.0	810.3	571.3	421.1	381.4	389.2	413.4	432.4	443.6	448.7	450.5
52.5°	929.4	821.6	554.9	401.3	364.2	369.4	389.2	407.3	415.1	416.8	422.0
55°	944.1	827.6	531.6	378.0	346.9	348.6	363.3	379.7	384.0	384.9	384.9
57.5°	954.5	824.1	504.0	354.7	329.7	329.7	338.3	351.2	353.0	353.8	355.5
60°	956.2	812.1	468.6	333.1	310.7	308.1	316.7	324.5	325.3	327.1	328.8
62.5°	943.2	785.3	430.6	312.4	292.5	286.5	294.3	302.0	306.4	308.9	310.7
65°	903.5	730.9	387.5	291.7	275.3	264.9	274.4	287.4	296.0	296.9	296.9
67.5°	820.7	642.9	341.7	270.1	254.6	245.1	257.2	271.0	281.3	285.6	284.8
70°	695.6	545.4	299.5	247.7	233.9	227.8	240.8	256.3	264.9	268.4	270.1
72.5°	560.1	436.7	262.3	225.2	215.7	212.3	225.2	240.8	252.9	258.0	258.9
75°	435.8	343.5	231.3	201.9	194.2	195.0	208.8	224.4	237.3	239.9	232.1
77.5°	338.3	273.6	201.9	174.3	170.0	176.0	189.9	206.3	214.0	216.6	211.4
80°	244.2	209.7	163.1	137.2	137.2	146.7	158.8	177.8	180.4	176.9	178.6
82.5°	115.6	101.8	80.3	66.4	62.1	69.0	73.4	79.4	86.3	88.0	83.7
85°	15.5	10.4	7.8	8.6	7.8	5.2	3.5	3.5	3.5	2.6	2.6
87.5°	2.6	2.6	1.7	1.7	1.7	1.7	1.7	1.7	0.9	0.9	0.9
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**

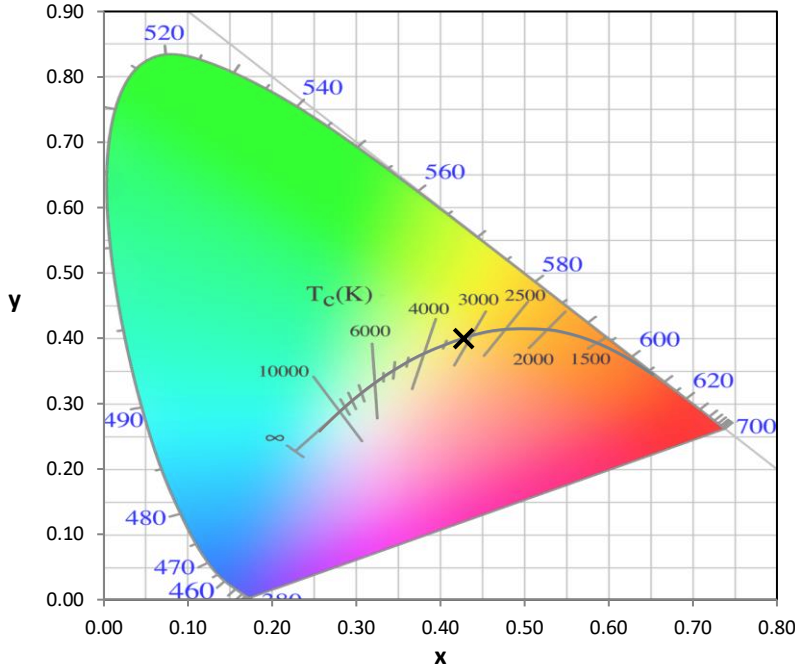
Stabilization Time: 22M  
 Operation Time: 1H 22M  
 Sphere Temperature (°C): 24.3

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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**

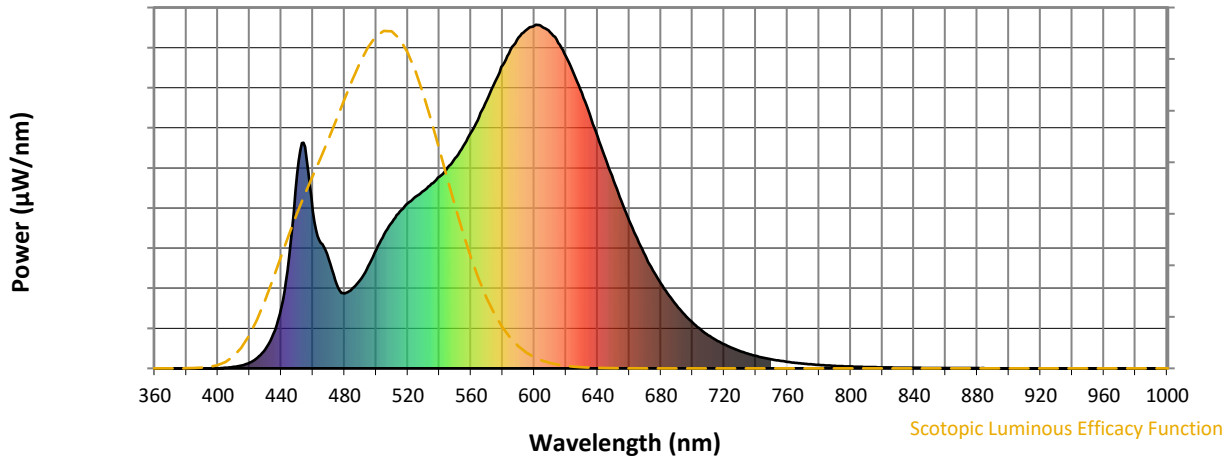


**Photopic Lumens: NR**

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

**Scotopic Flux vs. Wavelength**



**Scotopic Lumens: NR**

**S/P: 1.42**

$\lambda$ (nm)	Power $W^{\wedge}/nm$	Lumens ( $\phi/nm$ )	$\lambda$ (nm)	Power $W^{\wedge}/nm$	Lumens ( $\phi/nm$ )	$\lambda$ (nm)	Power $W^{\wedge}/nm$	Lumens ( $\phi/nm$ )	$\lambda$ (nm)	Power $W^{\wedge}/nm$	Lumens ( $\phi/nm$ )	$\lambda$ (nm)	Power $W^{\wedge}/nm$	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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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)