

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: P871140

Luminaire Tested: **EMM2-HSN-SA1B-830-U-T2U-HSS**

Issue Date: 09/05/2024



**Test Information**

Test Method: LM-79-08  
Report Number: P871140  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 09/05/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: EMM2-HSN-SA1B-830-U-T2U-HSS  
Description: EPIC MODERN SHORT HOUSING DISCRETE LED ARRAYS 60W 80CRI 3000K  
FITXURE w/ TYPE II URBAN DISTRIBUTION OPTIC AND HOUSE SIDE SHIELD  
Light Source: (10) 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

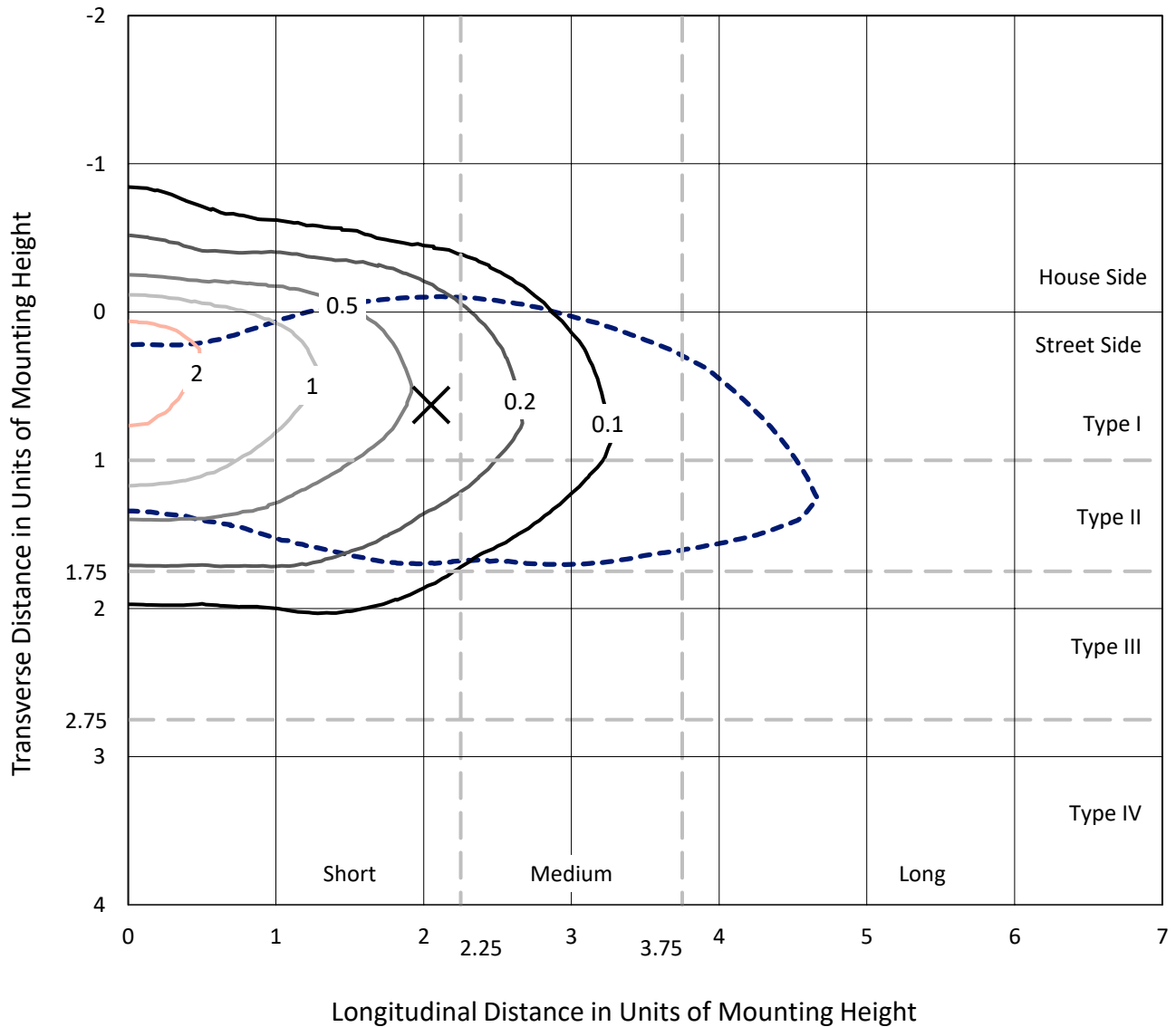
Lumens per Lamp: N/A  
Luminaire Lumens: 3702.5 lumens  
Efficiency: N/A  
Efficacy: 84.1 lumens/watt  
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B1 - U0 - G1

Input Watts (W): 44  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: 0.99  
Total Harmonic Distortion (THDi): 6.91%  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT

REPORT NUMBER: P871140  
 CATALOG NUMBER: EMM2-HSN-SA1B-830-U-T2U-HSS

### Iso-Footcandle Lines of Horizontal Illumination

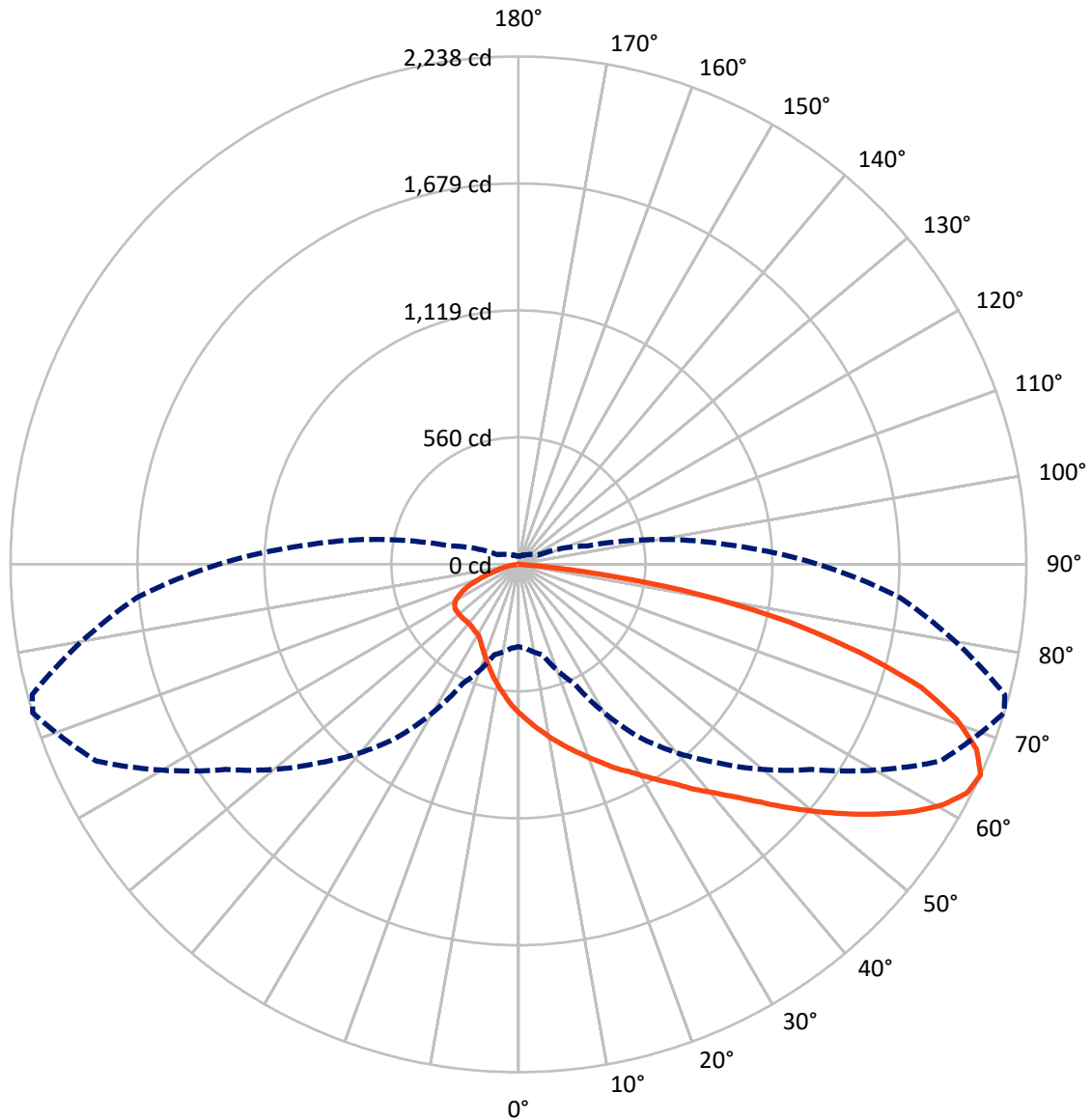
× Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 2.7 fc  
 Type II - Short - N/A

REPORT NUMBER: P871140  
CATALOG NUMBER: EMM2-HSN-SA1B-830-U-T2U-HSS

### Luminous Intensity Polar Plot



— Vertical Plane Through 73-Deg Lateral      - - - Horizontal Cone Through 65-Deg Vertical

REPORT NUMBER: P871140

CATALOG NUMBER: EMM2-HSN-SA1B-830-U-T2U-HSS

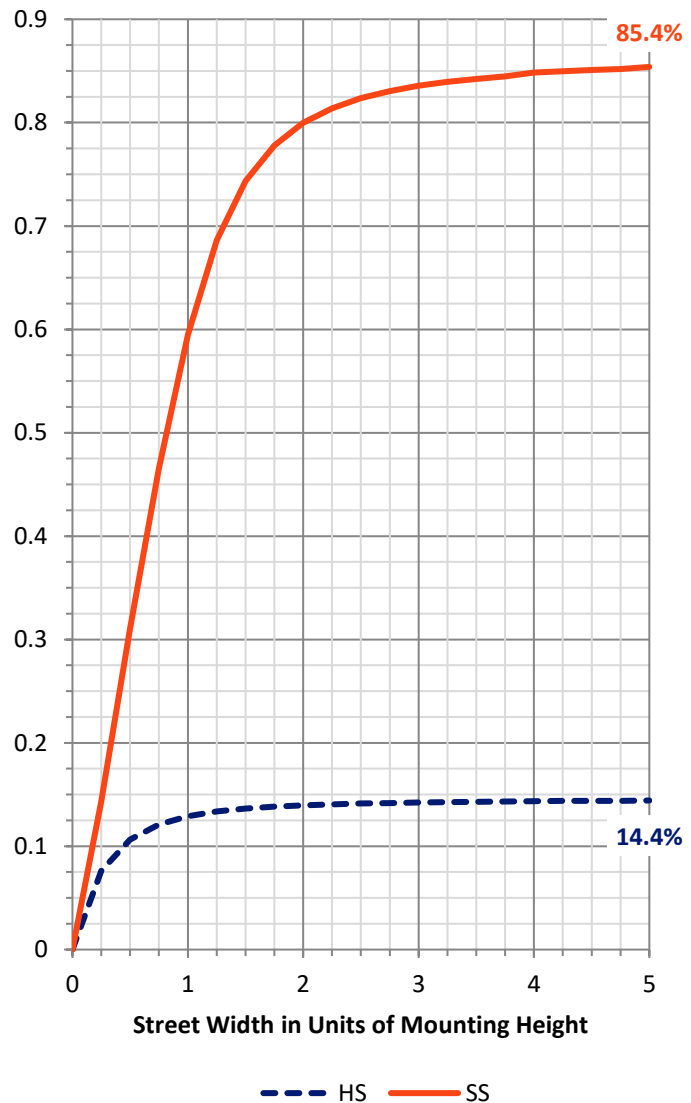
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	538.4	0.0	538.4
	% Fixture	14.5	0.0	14.5
<b>Street Side</b>	Lumens	3164.1	0.0	3164.1
	% Fixture	85.5	0.0	85.5
<b>Total</b>	Lumens	3702.5	0.0	3702.5
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	63.4	1.7
10°-20°	192.7	5.2
20°-30°	322.7	8.7
30°-40°	486.8	13.1
40°-50°	687.8	18.6
50°-60°	773.9	20.9
60°-70°	694.0	18.7
70°-80°	422.1	11.4
80°-90°	59.1	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°	3702.5	100.0
0°-180°	3702.5	100.0



REPORT NUMBER: P871140

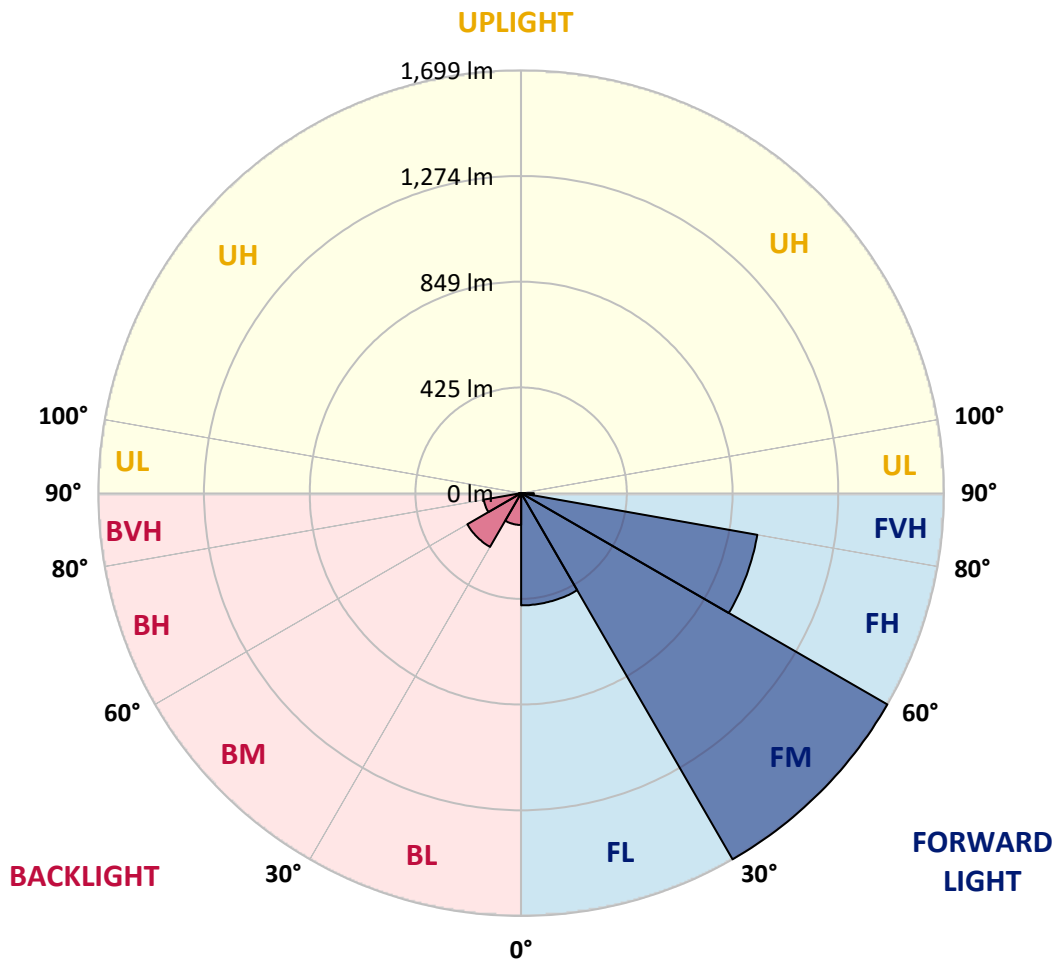
CATALOG NUMBER: EMM2-HSN-SA1B-830-U-T2U-HSS

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	450.9	12.2			
FM (30°-60°)	1698.9	45.9			
FH (60°-80°)	963.6	26.0			G1/1800
FVH (80°-90°)	50.7	1.4			G1/100
BL (0°-30°)	127.9	3.5	B1/500		
BM (30°-60°)	249.7	6.7	B1/1000		
BH (60°-80°)	152.5	4.1	B1/500		G1/500
BVH (80°-90°)	8.3	0.2			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

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

Type II Short





REPORT NUMBER: P871140

CATALOG NUMBER: EMM2-HSN-SA1B-830-U-T2U-HSS

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	73°	75°	85°
0°	656.8	656.8	656.8	656.8	656.8	656.8	656.8	656.8	656.8	656.8	656.8
2.5°	758.1	753.8	747.2	741.8	732.0	718.9	708.0	693.9	684.1	680.8	666.6
5°	868.1	862.7	855.1	842.0	815.9	800.6	772.3	739.6	713.5	708.0	675.3
7.5°	981.4	979.2	961.8	942.2	910.6	876.9	833.3	782.1	744.0	735.3	685.1
10°	1077.3	1067.5	1057.7	1039.2	1005.4	957.5	900.8	830.0	776.6	762.5	694.9
12.5°	1135.0	1131.7	1123.0	1101.2	1068.6	1027.2	959.6	876.9	808.2	788.6	704.8
15°	1177.5	1180.8	1172.0	1157.9	1124.1	1084.9	1019.5	925.9	842.0	819.1	715.6
17.5°	1217.8	1215.6	1214.5	1198.2	1167.7	1128.5	1062.0	966.2	875.8	850.7	726.5
20°	1240.7	1241.8	1239.6	1233.0	1203.6	1165.5	1103.4	1014.1	912.8	884.5	740.7
22.5°	1252.6	1257.0	1261.4	1260.3	1236.3	1206.9	1142.6	1052.2	950.9	921.5	758.1
25°	1260.3	1263.5	1273.3	1286.4	1264.6	1240.7	1186.2	1098.0	995.6	961.8	778.8
27.5°	1266.8	1271.2	1283.1	1302.8	1285.3	1271.2	1224.3	1137.2	1033.7	1003.2	802.8
30°	1309.3	1314.7	1314.7	1324.5	1304.9	1301.7	1266.8	1184.0	1081.6	1049.0	833.3
32.5°	1421.5	1410.6	1391.0	1381.2	1334.3	1335.4	1308.2	1230.9	1132.8	1100.2	871.4
35°	1518.4	1518.4	1494.5	1462.9	1387.7	1372.5	1356.1	1293.0	1188.4	1156.8	921.5
37.5°	1612.1	1613.2	1588.1	1560.9	1474.9	1420.4	1411.7	1352.9	1257.0	1220.0	973.8
40°	1670.9	1677.5	1670.9	1650.2	1567.4	1504.3	1466.1	1420.4	1322.4	1294.0	1033.7
42.5°	1680.7	1693.8	1717.8	1724.3	1635.0	1579.4	1535.9	1490.1	1400.8	1369.2	1102.3
45°	1655.7	1660.0	1713.4	1721.0	1685.1	1639.3	1609.9	1571.8	1494.5	1467.2	1178.6
47.5°	1587.1	1578.3	1596.9	1663.3	1677.5	1675.3	1682.9	1664.4	1603.4	1568.5	1262.5
50°	1440.0	1443.3	1503.2	1583.8	1632.8	1688.4	1737.4	1758.1	1713.4	1678.6	1352.9
52.5°	1172.0	1187.3	1301.7	1492.3	1577.2	1679.6	1776.6	1846.3	1827.8	1794.0	1442.2
55°	962.9	985.8	1100.2	1345.2	1501.0	1637.2	1799.5	1938.9	1942.2	1916.0	1523.9
57.5°	753.8	772.3	893.2	1117.6	1392.1	1570.7	1802.7	2018.4	2055.4	2024.9	1595.8
60°	590.4	603.5	674.3	931.3	1258.1	1475.9	1778.8	2081.6	2151.3	2128.4	1657.9
62.5°	447.7	457.5	520.7	736.3	1093.6	1364.8	1698.2	2104.5	2218.8	2197.0	1692.7
65°	362.7	371.4	412.8	578.4	931.3	1236.3	1576.2	2052.2	2238.4	2218.8	1688.4
67.5°	296.3	299.5	333.3	451.0	787.5	1091.4	1397.5	1916.0	2178.5	2177.4	1638.2
70°	239.6	248.4	276.7	359.5	654.6	924.8	1189.5	1702.5	2048.9	2059.8	1538.0
72.5°	203.7	205.9	230.9	297.4	533.7	750.5	984.7	1456.3	1858.3	1867.0	1381.2
75°	172.1	175.4	193.9	240.7	433.5	595.8	791.9	1176.4	1555.5	1592.5	1163.3
77.5°	148.1	149.2	162.3	198.2	308.3	447.7	580.6	882.3	1217.8	1243.9	913.9
80°	116.6	118.7	132.9	156.9	214.6	290.8	400.8	603.5	813.7	843.1	632.9
82.5°	54.5	61.0	64.3	86.1	112.2	143.8	189.5	251.6	368.2	367.1	295.2
85°	5.4	4.4	4.4	6.5	9.8	9.8	12.0	14.2	28.3	33.8	26.1
87.5°	0.0	0.0	0.0	1.1	2.2	2.2	2.2	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



REPORT NUMBER: P871140

CATALOG NUMBER: EMM2-HSN-SA1B-830-U-T2U-HSS

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	656.8	656.8	656.8	656.8	656.8	656.8	656.8	656.8	656.8	656.8	656.8
2.5°	660.1	650.3	632.9	616.5	605.6	596.9	582.8	574.0	567.5	558.8	557.7
5°	657.9	640.5	605.6	576.2	547.9	523.9	498.9	483.6	467.3	459.7	466.2
7.5°	660.1	631.8	577.3	532.6	490.2	452.0	419.4	398.7	383.4	375.8	376.9
10°	661.2	624.1	553.3	491.3	436.8	392.1	355.1	326.8	308.3	303.9	298.5
12.5°	659.0	614.3	529.4	451.0	385.6	336.6	293.0	271.2	252.7	244.0	244.0
15°	661.2	606.7	504.3	413.9	339.8	283.2	246.2	222.2	211.3	203.7	204.8
17.5°	661.2	600.2	480.4	378.0	295.2	242.9	209.1	189.5	178.6	174.3	173.2
20°	668.8	594.7	457.5	344.2	256.0	207.0	179.7	164.5	155.8	151.4	149.2
22.5°	674.3	590.4	436.8	311.5	223.3	180.8	157.9	143.8	137.2	135.1	135.1
25°	684.1	589.3	418.3	279.9	197.2	161.2	140.5	129.6	124.2	122.0	122.0
27.5°	698.2	591.5	400.8	252.7	177.5	141.6	126.4	117.6	114.4	113.3	112.2
30°	718.9	601.3	390.0	232.0	159.0	129.6	115.5	110.0	107.8	106.7	106.7
32.5°	746.1	618.7	385.6	221.1	148.1	119.8	107.8	103.5	101.3	101.3	100.2
35°	779.9	638.3	382.3	211.3	140.5	113.3	102.4	98.0	96.9	96.9	96.9
37.5°	820.2	659.0	376.9	204.8	136.2	107.8	98.0	93.7	93.7	93.7	93.7
40°	864.9	689.5	375.8	200.4	132.9	104.6	93.7	89.3	89.3	89.3	89.3
42.5°	915.0	722.2	374.7	197.2	130.7	102.4	89.3	85.0	85.0	85.0	85.0
45°	976.0	763.6	376.9	195.0	130.7	100.2	86.1	80.6	79.5	79.5	79.5
47.5°	1035.9	802.8	379.1	192.8	128.5	96.9	81.7	76.2	75.2	74.1	74.1
50°	1100.2	843.1	379.1	190.6	126.4	93.7	78.4	70.8	69.7	68.6	68.6
52.5°	1163.3	876.9	380.2	187.4	120.9	88.2	73.0	66.4	64.3	63.2	62.1
55°	1224.3	912.8	381.2	181.9	114.4	82.8	69.7	62.1	58.8	56.6	56.6
57.5°	1270.1	942.2	375.8	171.0	105.7	77.3	64.3	56.6	52.3	50.1	50.1
60°	1313.6	960.7	366.0	154.7	96.9	71.9	59.9	51.2	46.8	44.7	44.7
62.5°	1331.1	964.0	343.1	126.4	86.1	66.4	54.5	46.8	43.6	42.5	42.5
65°	1321.3	949.8	312.6	100.2	76.2	59.9	50.1	43.6	39.2	35.9	35.9
67.5°	1267.9	900.8	271.2	79.5	66.4	54.5	45.7	39.2	34.9	31.6	31.6
70°	1166.6	822.4	211.3	63.2	57.7	47.9	41.4	35.9	31.6	28.3	28.3
72.5°	1017.4	713.5	153.6	53.4	50.1	42.5	37.0	32.7	28.3	26.1	26.1
75°	838.7	550.1	108.9	45.7	44.7	38.1	33.8	29.4	26.1	24.0	24.0
77.5°	629.6	383.4	85.0	40.3	39.2	34.9	30.5	27.2	24.0	22.9	21.8
80°	419.4	237.5	64.3	30.5	29.4	27.2	25.1	22.9	19.6	17.4	17.4
82.5°	187.4	100.2	32.7	17.4	15.2	13.1	10.9	7.6	7.6	6.5	6.5
85°	19.6	13.1	6.5	4.4	4.4	3.3	3.3	3.3	2.2	2.2	2.2
87.5°	3.3	3.3	2.2	2.2	2.2	1.1	1.1	1.1	1.1	1.1	1.1
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

REPORT NUMBER: SP1-2407-157-7

CIE 1931 Chromaticity Diagram



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



CCT = 3126K  
 CIE x = 0.4277  
 CIE y = 0.3997  
 Duv = -0.0004

Point lies inside the ANSI 3000K 4-step quadrangle

REPORT NUMBER: SP1-2407-157-7

**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			

REPORT NUMBER: SP1-2407-157-7

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)