

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: P870600

Luminaire Tested: **EMM2-HTN-SA1A-830-U-T1**

Issue Date: 09/05/2024



**Test Information**

Test Method: LM-79-08  
Report Number: P870600  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 09/05/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: EMM2-HTN-SA1A-830-U-T1  
Description: EPIC MODERN TALL HOUSING DISCRETE LED ARRAYS 40W 80CRI 3000K  
FIXTURE w/ TYPE 1 DISTRIBUTION OPTIC  
Light Source: (10) 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

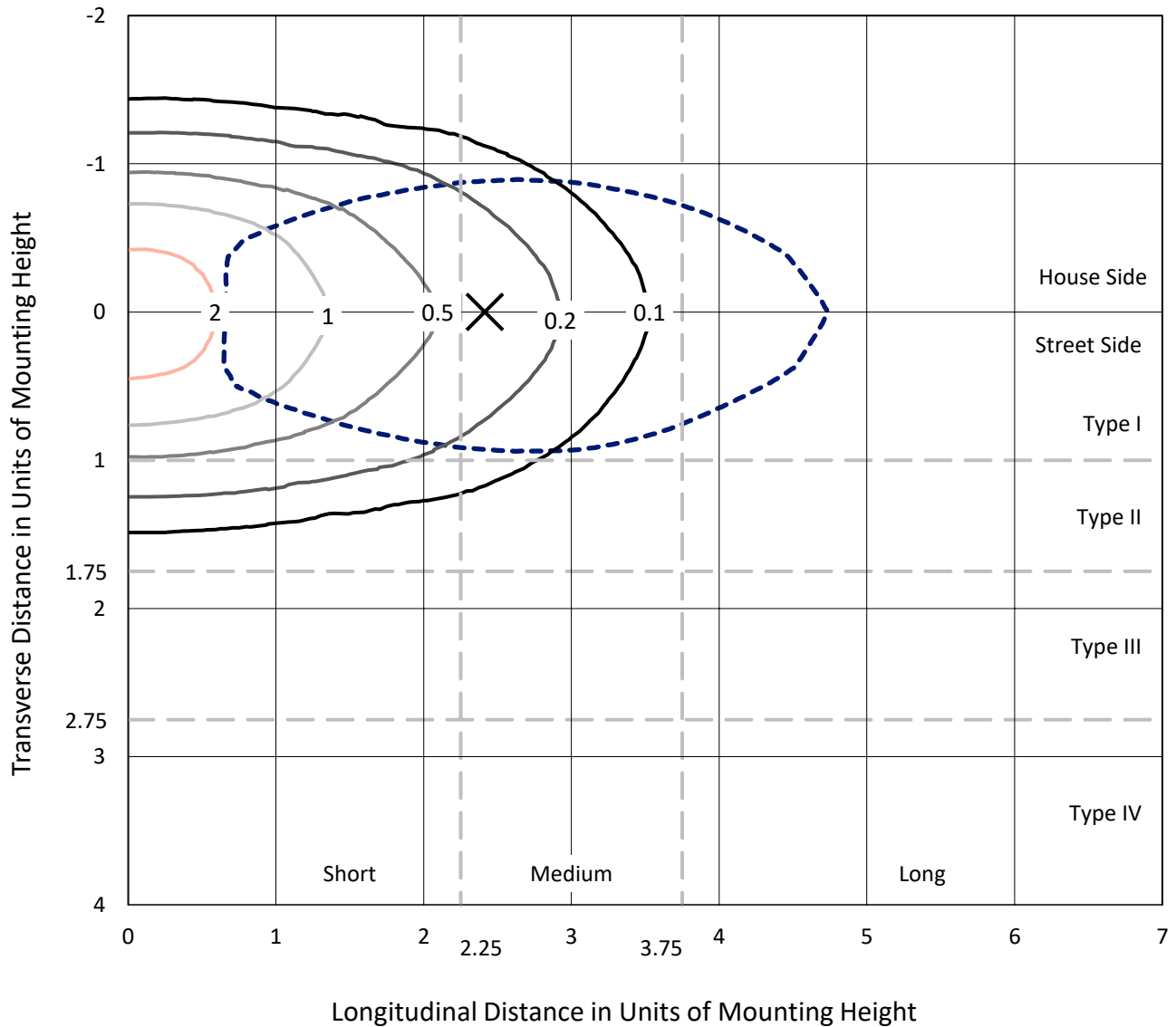
Lumens per Lamp: N/A  
Luminaire Lumens: 4494.5 lumens  
Efficiency: N/A  
Efficacy: 137.0 lumens/watt  
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')  
IES Classification: Type I - Short  
BUG Rating: B2 - U0 - G2

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

REPORT NUMBER: P870600  
 CATALOG NUMBER: EMM2-HTN-SA1A-830-U-T1

### Iso-Footcandle Lines of Horizontal Illumination

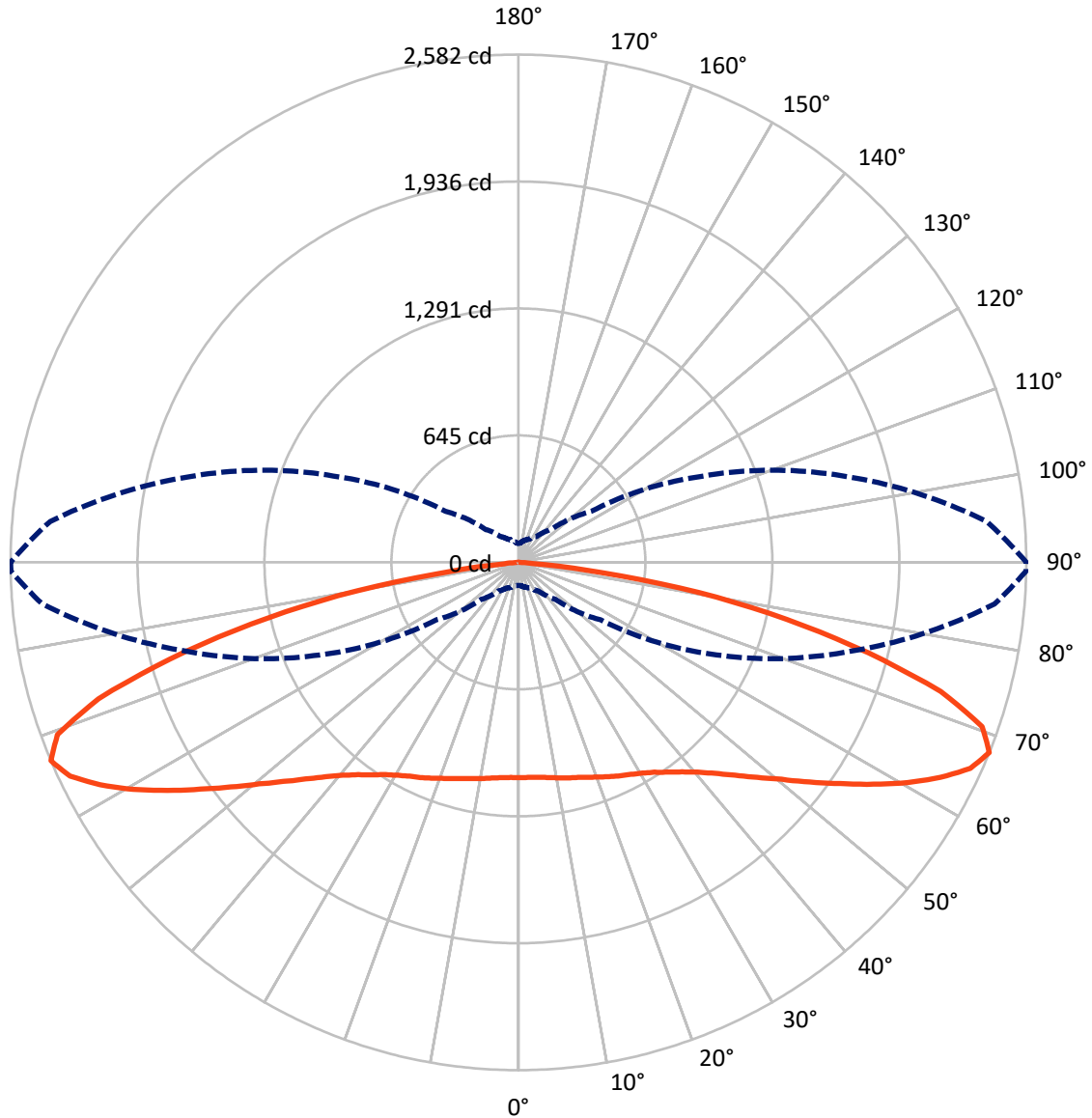
× Max cd  
 - - - 1/2 Max cd



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

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### Luminous Intensity Polar Plot



— Vertical Plane Through 90-Deg Lateral      - - - Horizontal Cone Through 67.5-Deg Vertical

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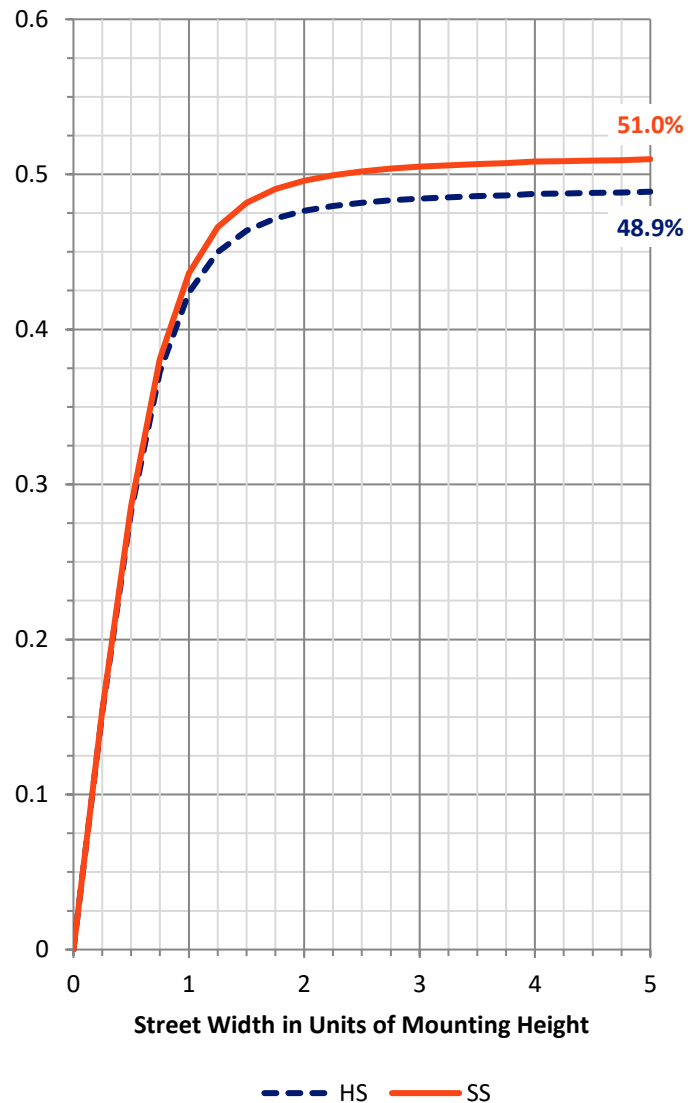
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2207.3	0.0	2207.3
	% Fixture	49.1	0.0	49.1
<b>Street Side</b>	Lumens	2287.1	0.0	2287.1
	% Fixture	50.9	0.0	50.9
<b>Total</b>	Lumens	4494.5	0.0	4494.5
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	105.0	2.3
10°-20°	315.4	7.0
20°-30°	521.9	11.6
30°-40°	692.1	15.4
40°-50°	780.3	17.4
50°-60°	800.0	17.8
60°-70°	755.5	16.8
70°-80°	463.6	10.3
80°-90°	60.7	1.3
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°	4494.5	100.0
0°-180°	4494.5	100.0

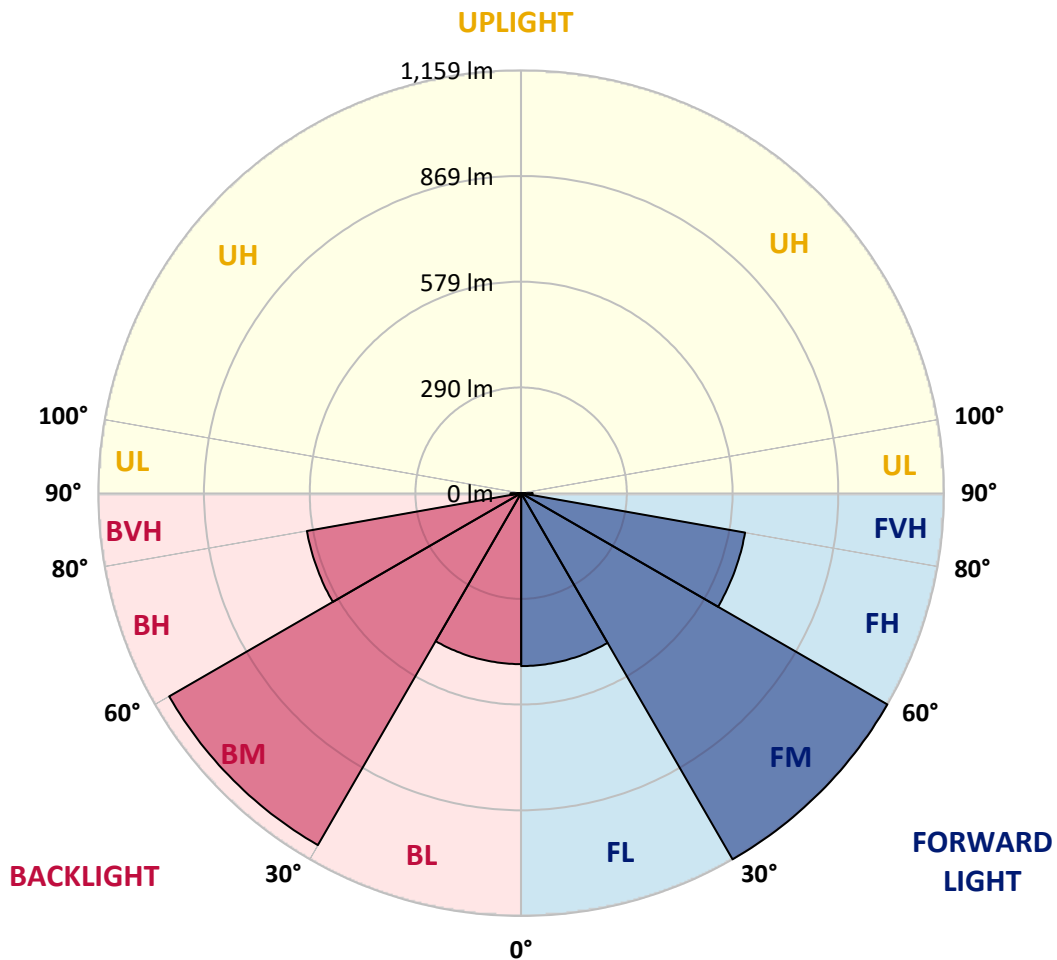


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	473.8	10.5			
FM (30°-60°)	1158.6	25.8			
FH (60°-80°)	623.1	13.9			G0/660
FVH (80°-90°)	31.6	0.7			G1/100
BL (0°-30°)	468.4	10.4	B1/500		
BM (30°-60°)	1113.8	24.8	B2/2500		
BH (60°-80°)	596.1	13.3	B2/1000		G2/1000
BVH (80°-90°)	29.1	0.6			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G2**  
 Type I Short





REPORT NUMBER: P870600

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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	89°
0°	1095.1	1095.1	1095.1	1095.1	1095.1	1095.1	1095.1	1095.1	1095.1	1095.1	1095.1
2.5°	1099.4	1099.4	1096.8	1092.5	1091.6	1092.5	1097.7	1095.1	1095.1	1095.9	1095.1
5°	1099.4	1099.4	1097.7	1093.3	1093.3	1093.3	1099.4	1096.8	1097.7	1098.5	1098.5
7.5°	1101.1	1101.1	1099.4	1095.9	1095.9	1095.9	1104.6	1102.8	1102.8	1105.4	1103.7
10°	1105.4	1103.7	1102.0	1102.8	1100.2	1104.6	1108.9	1109.7	1113.2	1114.9	1114.1
12.5°	1105.4	1103.7	1099.4	1104.6	1104.6	1110.6	1116.6	1120.1	1124.4	1124.4	1124.4
15°	1100.2	1098.5	1095.1	1103.7	1107.2	1114.9	1123.5	1128.7	1136.5	1136.5	1135.6
17.5°	1094.2	1091.6	1089.9	1102.8	1110.6	1121.0	1133.9	1140.8	1149.4	1150.3	1148.6
20°	1083.0	1082.1	1083.0	1100.2	1114.1	1128.7	1144.3	1153.7	1165.0	1168.4	1165.8
22.5°	1070.9	1070.9	1074.4	1097.7	1119.2	1139.1	1159.8	1171.9	1183.1	1186.5	1183.1
25°	1054.5	1054.5	1061.4	1089.0	1121.0	1150.3	1174.5	1190.9	1201.2	1204.7	1202.9
27.5°	1029.5	1029.5	1037.3	1071.8	1115.8	1158.9	1190.0	1209.0	1220.2	1223.6	1221.9
30°	994.1	992.4	1002.7	1045.9	1106.3	1168.4	1208.1	1228.0	1242.6	1245.2	1242.6
32.5°	938.0	940.6	956.1	1010.5	1090.8	1174.5	1229.7	1253.0	1269.4	1274.6	1272.8
35°	869.8	874.2	895.7	965.6	1061.4	1173.6	1252.1	1280.6	1302.2	1309.1	1308.2
37.5°	788.7	794.8	821.5	903.5	1017.4	1160.7	1272.8	1311.7	1340.1	1348.8	1350.5
40°	699.8	705.9	740.4	831.0	957.9	1130.4	1284.9	1347.0	1385.0	1402.3	1404.9
42.5°	605.8	616.1	657.6	745.6	886.2	1082.1	1284.9	1381.6	1428.2	1460.1	1462.7
45°	515.2	523.8	573.9	660.1	809.4	1020.0	1270.2	1416.1	1486.8	1542.1	1540.3
47.5°	436.6	439.2	485.0	572.1	724.0	949.2	1240.0	1447.1	1549.0	1622.3	1637.9
50°	355.5	361.6	400.4	486.7	636.8	871.6	1189.1	1467.0	1612.8	1724.2	1744.0
52.5°	298.6	299.4	328.8	408.2	546.2	777.5	1127.9	1472.2	1674.1	1834.6	1858.8
55°	243.3	247.7	272.7	332.2	459.1	685.2	1048.5	1464.4	1730.2	1941.6	1986.5
57.5°	208.8	209.7	227.8	275.3	387.5	586.8	960.5	1438.5	1776.8	2059.8	2116.8
60°	179.5	179.5	193.3	229.5	313.2	491.0	856.9	1392.8	1802.7	2186.7	2269.5
62.5°	156.2	157.1	169.1	195.9	260.6	405.6	743.0	1321.2	1812.2	2309.2	2404.1
65°	141.5	142.4	149.3	167.4	214.9	329.6	626.5	1234.0	1799.2	2400.7	2524.1
67.5°	117.4	118.2	130.3	144.1	178.6	264.9	509.1	1113.2	1746.6	2429.2	2580.2
70°	89.7	92.3	108.7	123.4	148.4	211.4	390.9	953.5	1620.6	2332.5	2487.9
72.5°	75.1	75.9	88.0	104.4	124.3	165.7	296.9	750.8	1429.0	2083.1	2255.7
75°	65.6	66.4	73.3	88.0	103.6	132.9	206.2	518.6	1139.9	1684.5	1842.4
77.5°	59.5	60.4	62.1	74.2	87.2	102.7	145.8	308.1	804.3	1287.5	1370.3
80°	57.0	57.0	52.6	61.3	71.6	80.3	97.5	176.9	516.0	868.1	934.6
82.5°	40.6	39.7	36.2	38.0	44.0	44.0	50.1	73.3	197.6	366.7	397.8
85°	2.6	2.6	4.3	5.2	7.8	10.4	12.9	17.3	50.1	68.2	70.8
87.5°	0.9	0.9	0.9	0.9	0.9	1.7	1.7	1.7	2.6	3.5	3.5
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-HTN-SA1A-830-U-T1

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1095.1	1095.1	1095.1	1095.1	1095.1	1095.1	1095.1	1095.1	1095.1	1095.1	1095.1
2.5°	1094.2	1095.1	1095.1	1096.8	1098.5	1097.7	1096.8	1098.5	1095.9	1090.8	1089.9
5°	1097.7	1097.7	1096.8	1098.5	1100.2	1098.5	1096.8	1096.8	1095.1	1089.9	1089.0
7.5°	1104.6	1103.7	1103.7	1103.7	1103.7	1101.1	1098.5	1096.8	1094.2	1089.0	1086.4
10°	1114.1	1113.2	1112.3	1111.5	1107.2	1104.6	1100.2	1097.7	1094.2	1088.2	1086.4
12.5°	1124.4	1122.7	1121.0	1121.8	1113.2	1105.4	1101.1	1095.1	1092.5	1078.7	1076.1
15°	1134.8	1132.2	1131.3	1127.9	1119.2	1108.0	1099.4	1090.8	1082.1	1069.2	1064.9
17.5°	1148.6	1146.8	1141.7	1138.2	1126.1	1110.6	1097.7	1085.6	1074.4	1058.8	1056.2
20°	1165.0	1163.2	1158.1	1151.2	1135.6	1116.6	1098.5	1079.5	1065.7	1047.6	1043.3
22.5°	1183.1	1180.5	1176.2	1168.4	1148.6	1126.1	1101.1	1076.1	1055.4	1034.7	1032.1
25°	1202.1	1200.3	1196.0	1184.8	1163.2	1135.6	1101.1	1064.0	1038.1	1020.0	1012.2
27.5°	1220.2	1219.3	1214.2	1201.2	1178.8	1142.5	1093.3	1044.2	1009.6	985.5	980.3
30°	1243.5	1241.8	1235.7	1221.1	1196.0	1146.8	1077.8	1010.5	967.4	940.6	932.8
32.5°	1272.0	1270.2	1261.6	1243.5	1216.7	1147.7	1055.4	967.4	910.4	881.9	872.4
35°	1309.9	1306.5	1295.3	1273.7	1236.6	1139.1	1015.7	912.1	842.2	805.1	792.2
37.5°	1351.4	1347.0	1332.4	1305.6	1250.4	1115.8	959.6	837.9	758.5	714.5	705.0
40°	1402.3	1396.2	1373.8	1336.7	1255.6	1075.2	896.6	762.0	677.4	629.1	617.9
42.5°	1466.1	1455.8	1419.5	1371.2	1245.2	1020.0	821.5	683.4	586.8	541.9	539.3
45°	1542.9	1526.5	1472.2	1404.9	1222.8	951.0	742.1	595.4	503.1	459.1	447.9
47.5°	1633.5	1613.7	1533.4	1430.8	1178.8	880.2	656.7	510.0	425.4	380.6	371.9
50°	1733.6	1714.7	1598.2	1445.4	1131.3	797.4	573.0	434.1	349.5	312.4	312.4
52.5°	1855.3	1812.2	1660.3	1447.1	1058.8	705.9	492.7	359.8	293.4	260.6	253.7
55°	1984.8	1933.8	1716.4	1431.6	983.7	622.2	406.4	299.4	240.8	217.5	211.4
57.5°	2128.9	2051.2	1756.9	1400.5	888.8	530.7	339.1	246.8	202.8	183.8	181.2
60°	2273.8	2173.7	1781.1	1347.9	787.9	446.1	282.2	206.2	174.3	160.5	157.9
62.5°	2408.5	2273.8	1782.8	1271.1	689.5	371.9	231.3	177.8	154.5	144.1	144.1
65°	2525.0	2357.5	1753.5	1172.7	564.4	298.6	190.7	150.2	134.6	123.4	120.8
67.5°	2581.9	2389.5	1701.7	1038.1	452.2	236.4	160.5	130.3	115.6	98.4	96.6
70°	2501.7	2297.1	1568.8	865.5	349.5	188.1	133.8	111.3	96.6	82.0	80.3
72.5°	2245.4	2051.2	1354.0	670.5	263.2	151.9	111.3	94.9	79.4	71.6	69.9
75°	1837.2	1706.0	1070.0	461.7	183.8	119.1	93.2	80.3	67.3	63.9	63.0
77.5°	1394.5	1268.5	781.8	289.1	126.0	93.2	79.4	68.2	58.7	61.3	59.5
80°	931.1	873.3	519.5	164.0	84.6	68.2	60.4	50.1	44.9	51.8	50.1
82.5°	422.8	400.4	244.2	71.6	38.0	29.3	20.7	15.5	12.1	11.2	12.9
85°	70.8	62.1	17.3	7.8	4.3	2.6	1.7	1.7	0.9	0.9	0.9
87.5°	3.5	2.6	2.6	1.7	0.9	0.9	0.9	0.9	0.9	0.0	0.0
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



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

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

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)