

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: P869028

Luminaire Tested: **EMM2-HSN-SA2A-740-U-T4W**

Issue Date: 08/22/2024



**Test Information**

Test Method: LM-79-08  
Report Number: P869028  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 08/22/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: EMM2-HSN-SA2A-740-U-T4W  
Description: EPIC MODERN SHORT HOUSING DISCRETE LED ARRAYS 70W 70CRI 4000K  
FITXURE w/ TYPE IV WIDE DISTRIBUTION OPTIC  
Light Source: (20) 4000K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

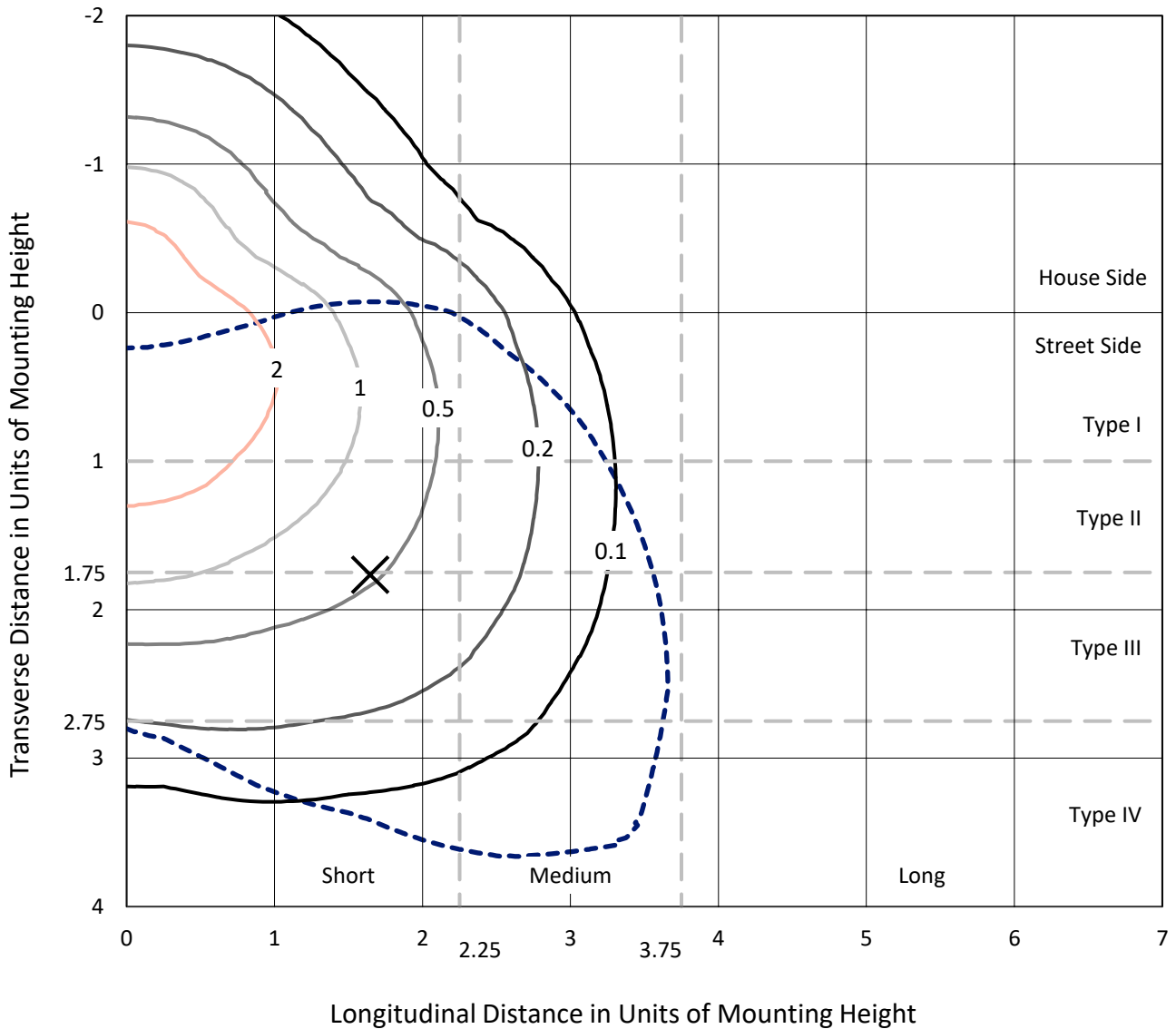
Lumens per Lamp: N/A  
Luminaire Lumens: 9204.5 lumens  
Efficiency: N/A  
Efficacy: 150.9 lumens/watt  
Luminous Opening: Rectangular (W 0.67' x L: 0.33' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B2 - U0 - G2

Input Watts (W): 61  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: 0.99  
Total Harmonic Distortion (THDi): 9.89%  
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

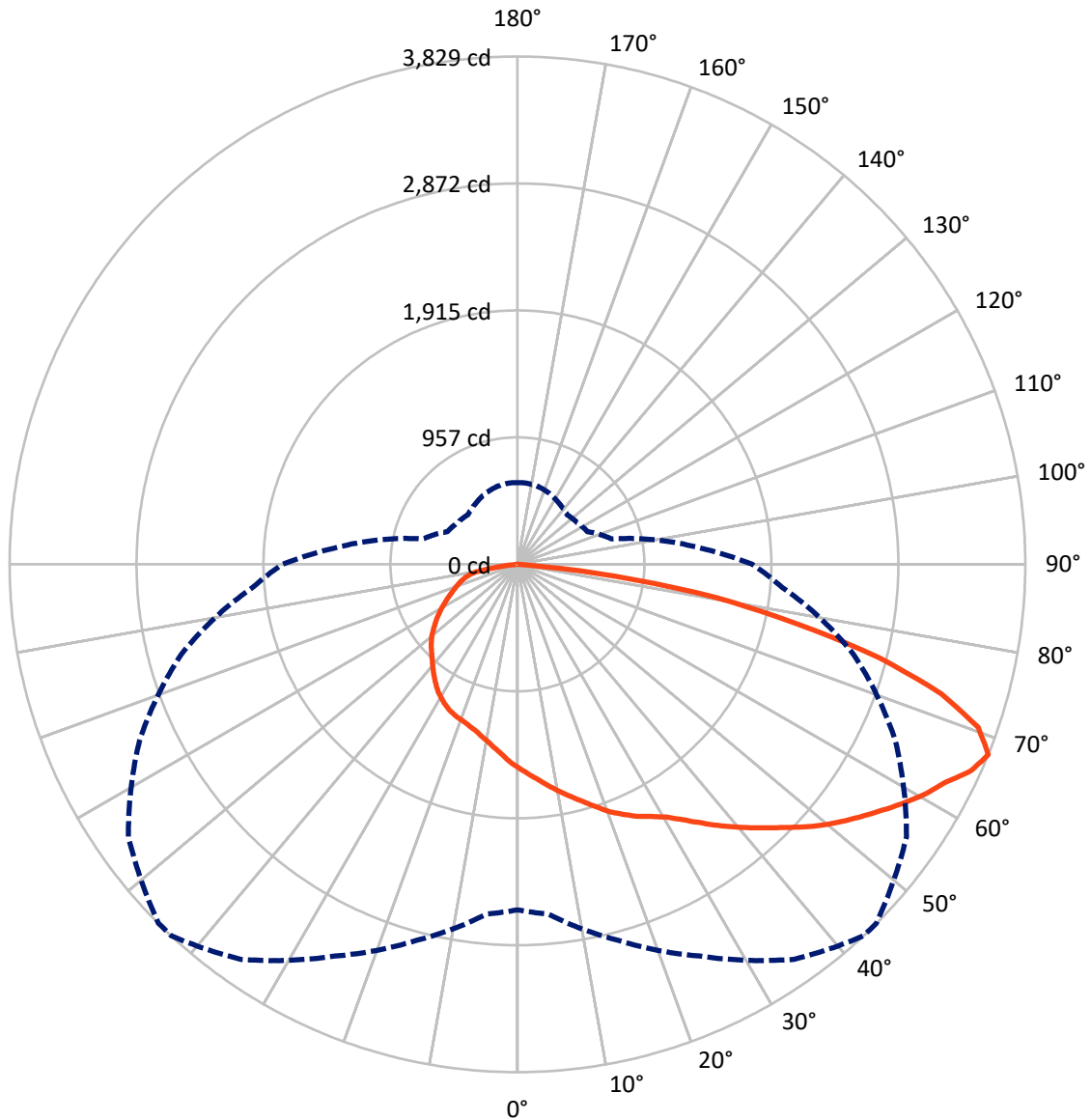
× Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 4.4 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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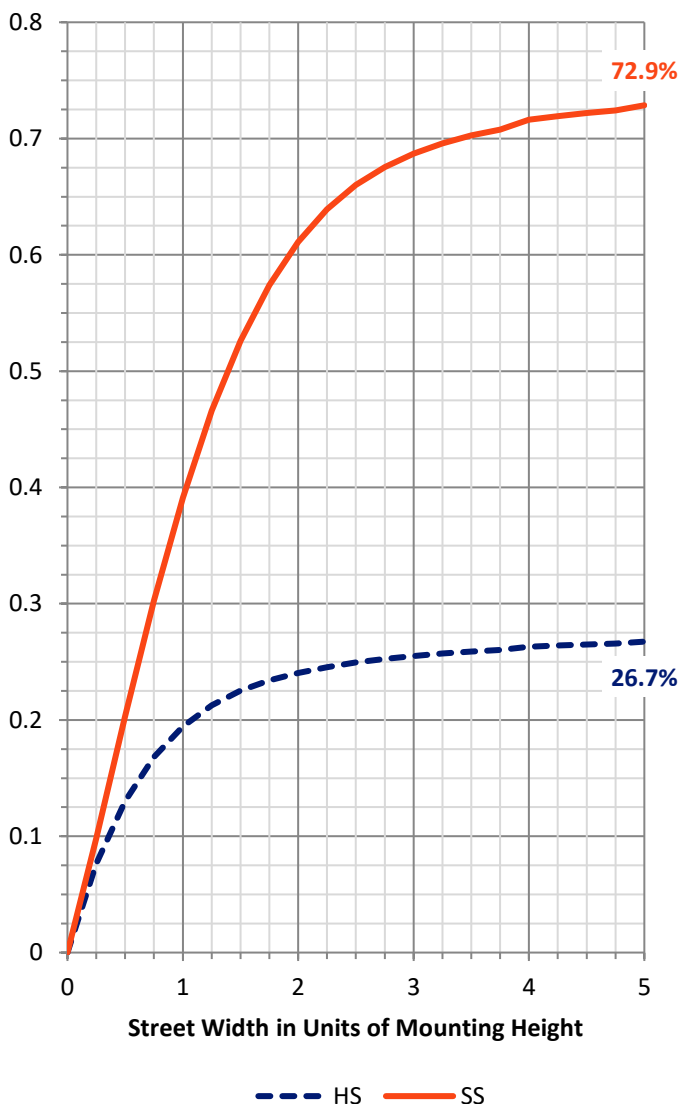
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2476.1	0.0	2476.1
	% Fixture	26.9	0.0	26.9
<b>Street Side</b>	Lumens	6728.5	0.0	6728.5
	% Fixture	73.1	0.0	73.1
<b>Total</b>	Lumens	9204.5	0.0	9204.5
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	147.0	1.6
10°-20°	449.1	4.9
20°-30°	766.2	8.3
30°-40°	1117.4	12.1
40°-50°	1501.2	16.3
50°-60°	1837.7	20.0
60°-70°	1934.0	21.0
70°-80°	1262.6	13.7
80°-90°	189.4	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°	9204.5	100.0
0°-180°	9204.5	100.0

**Coefficient of Utilization**



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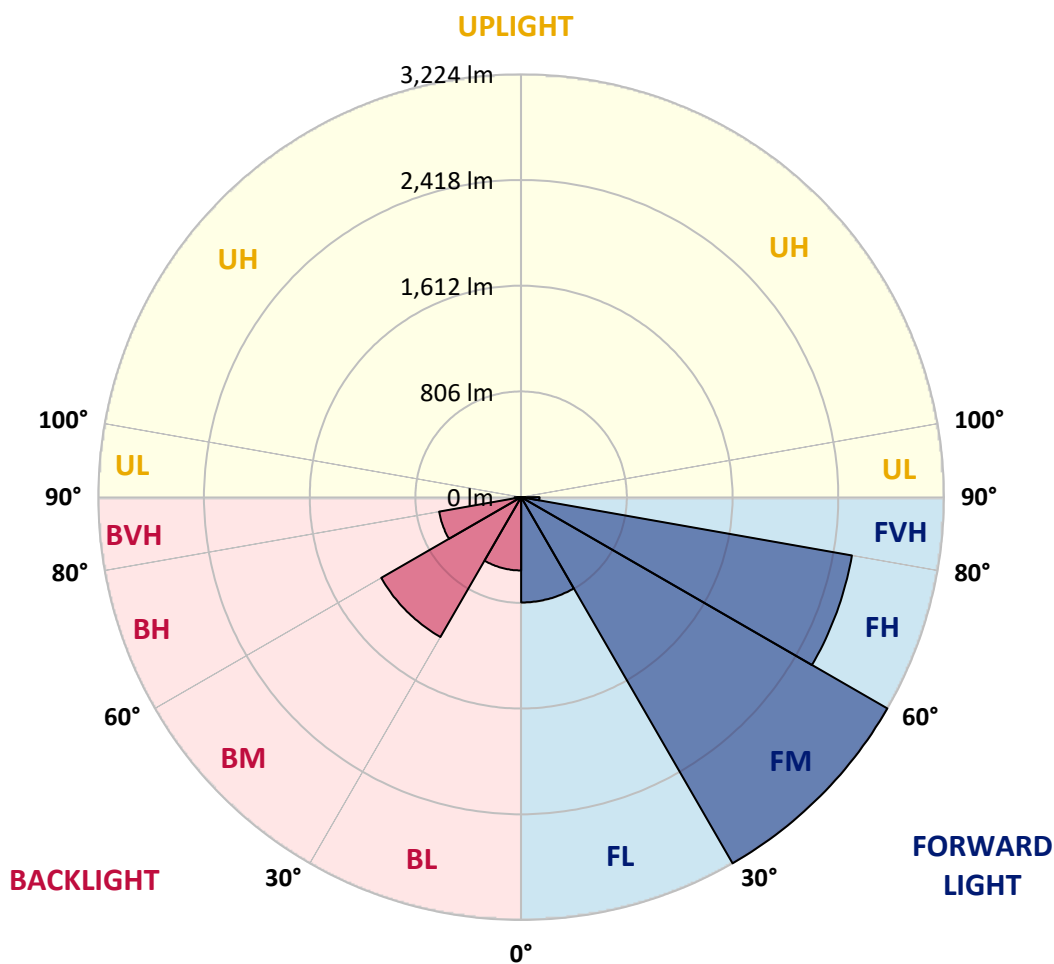
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	803.3	8.7			
FM	(30°-60°)	3224.3	35.0			
FH	(60°-80°)	2561.2	27.8			G2/5000
FVH	(80°-90°)	139.7	1.5			G2/225
BL	(0°-30°)	559.0	6.1	B2/1000		
BM	(30°-60°)	1232.0	13.4	B2/2500		
BH	(60°-80°)	635.4	6.9	B2/1000		G2/1000
BVH	(80°-90°)	49.7	0.5			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 IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	43°	45°	55°	65°	75°	85°
0°	1536.5	1536.5	1536.5	1536.5	1536.5	1536.5	1536.5	1536.5	1536.5	1536.5	1536.5
2.5°	1607.3	1605.4	1599.8	1596.1	1584.9	1583.1	1583.1	1571.9	1558.9	1551.4	1544.0
5°	1679.9	1670.6	1666.9	1659.4	1640.8	1629.6	1633.4	1612.9	1586.8	1568.2	1547.7
7.5°	1745.1	1741.4	1728.3	1719.0	1696.7	1685.5	1681.8	1650.1	1616.6	1588.7	1555.1
10°	1823.3	1814.0	1806.6	1787.9	1758.1	1741.4	1735.8	1694.8	1652.0	1614.7	1570.0
12.5°	1894.1	1882.9	1873.6	1855.0	1825.2	1797.3	1789.8	1743.2	1689.2	1638.9	1583.1
15°	1948.1	1950.0	1940.7	1923.9	1890.4	1856.9	1851.3	1789.8	1724.6	1663.2	1596.1
17.5°	1998.4	2005.8	2000.3	1989.1	1955.6	1922.0	1916.5	1847.5	1769.3	1691.1	1611.0
20°	2046.8	2046.8	2045.0	2037.5	2013.3	1990.9	1979.8	1910.9	1812.2	1720.9	1631.5
22.5°	2074.8	2082.2	2082.2	2082.2	2067.3	2048.7	2045.0	1977.9	1869.9	1758.1	1650.1
25°	2117.6	2126.9	2126.9	2123.2	2110.1	2104.6	2099.0	2035.6	1925.8	1801.0	1670.6
27.5°	2208.9	2207.0	2192.1	2173.5	2154.8	2153.0	2145.5	2100.8	1990.9	1847.5	1698.5
30°	2335.5	2339.2	2320.6	2262.9	2220.0	2210.7	2212.6	2173.5	2067.3	1901.6	1730.2
32.5°	2529.2	2529.2	2456.6	2382.1	2320.6	2296.4	2290.8	2257.3	2145.5	1961.1	1765.6
35°	2674.5	2668.9	2627.9	2540.4	2464.0	2395.1	2385.8	2341.1	2233.1	2028.2	1804.7
37.5°	2784.3	2795.5	2763.9	2696.8	2622.3	2503.1	2484.5	2421.2	2313.2	2093.4	1843.8
40°	2996.7	2968.7	2892.4	2830.9	2741.5	2609.3	2592.5	2514.3	2395.1	2166.0	1892.2
42.5°	3151.2	3112.1	3024.6	2942.7	2830.9	2715.4	2700.5	2614.9	2490.1	2248.0	1942.5
45°	3372.9	3285.3	3164.3	3091.7	2933.3	2830.9	2812.3	2719.2	2588.8	2335.5	2005.8
47.5°	3587.1	3434.3	3305.8	3272.3	3045.1	2955.7	2940.8	2832.8	2695.0	2430.5	2067.3
50°	3559.1	3458.6	3415.7	3384.1	3141.9	3073.0	3058.1	2948.2	2803.0	2531.1	2128.8
52.5°	3488.4	3497.7	3499.5	3423.2	3233.2	3182.9	3168.0	3073.0	2914.7	2618.6	2188.4
55°	3562.8	3574.0	3572.2	3456.7	3339.4	3292.8	3283.5	3199.7	3022.7	2700.5	2231.2
57.5°	3676.5	3639.2	3633.6	3540.5	3453.0	3410.1	3399.0	3326.3	3114.0	2760.1	2264.7
60°	3696.9	3622.4	3646.7	3559.1	3538.6	3525.6	3521.9	3436.2	3199.7	2808.6	2277.8
62.5°	3467.9	3454.8	3549.8	3514.4	3583.3	3620.6	3622.4	3514.4	3246.2	2827.2	2264.7
65°	3076.8	3128.9	3333.8	3436.2	3650.4	3756.5	3752.8	3561.0	3240.6	2773.2	2184.6
67.5°	2605.6	2646.5	2935.2	3259.3	3635.5	3829.2	3827.3	3581.5	3143.8	2624.2	2004.0
70°	1976.0	2104.6	2514.3	2940.8	3434.3	3685.8	3717.4	3466.0	2922.2	2352.3	1730.2
72.5°	1503.0	1523.5	2018.9	2465.9	3074.9	3344.9	3339.4	3097.2	2551.5	1981.6	1441.5
75°	1067.2	1111.9	1519.8	1910.9	2519.9	2819.7	2806.7	2540.4	2035.6	1542.1	1102.6
77.5°	795.3	812.0	1111.9	1417.3	1884.8	2154.8	2149.3	1877.3	1497.4	1132.4	821.3
80°	581.1	609.0	800.8	989.0	1277.6	1510.4	1503.0	1246.0	961.0	791.5	599.7
82.5°	325.9	346.4	465.6	597.8	674.2	746.8	715.2	597.8	437.7	340.8	294.3
85°	9.3	11.2	16.8	20.5	35.4	59.6	65.2	57.7	68.9	42.8	46.6
87.5°	3.7	3.7	3.7	3.7	3.7	5.6	5.6	5.6	5.6	5.6	5.6
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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**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1536.5	1536.5	1536.5	1536.5	1536.5	1536.5	1536.5	1536.5	1536.5	1536.5	1536.5
2.5°	1540.2	1532.8	1517.9	1508.6	1503.0	1495.5	1484.4	1476.9	1471.3	1478.8	1476.9
5°	1538.4	1523.5	1497.4	1478.8	1460.2	1445.3	1428.5	1415.5	1408.0	1411.7	1409.9
7.5°	1538.4	1519.8	1478.8	1449.0	1421.0	1398.7	1380.1	1363.3	1355.9	1357.7	1355.9
10°	1545.8	1519.8	1465.7	1422.9	1385.7	1359.6	1339.1	1324.2	1318.6	1324.2	1326.1
12.5°	1553.3	1519.8	1454.6	1400.6	1352.1	1324.2	1305.6	1296.3	1300.0	1301.8	1303.7
15°	1557.0	1517.9	1443.4	1374.5	1320.5	1290.7	1279.5	1277.6	1286.9	1296.3	1298.1
17.5°	1566.3	1516.0	1426.6	1348.4	1292.5	1268.3	1262.7	1270.2	1288.8	1301.8	1305.6
20°	1577.5	1519.8	1408.0	1316.7	1264.6	1246.0	1255.3	1272.0	1294.4	1313.0	1316.7
22.5°	1588.7	1521.6	1391.2	1288.8	1234.8	1231.1	1251.6	1275.8	1301.8	1320.5	1324.2
25°	1601.7	1521.6	1368.9	1253.4	1205.0	1210.6	1242.2	1273.9	1298.1	1322.3	1326.1
27.5°	1614.7	1525.3	1344.7	1214.3	1167.8	1184.5	1223.6	1262.7	1288.8	1313.0	1318.6
30°	1637.1	1532.8	1324.2	1180.8	1130.5	1152.9	1199.4	1244.1	1272.0	1298.1	1303.7
32.5°	1659.4	1544.0	1307.4	1145.4	1093.3	1119.3	1171.5	1221.8	1251.6	1275.8	1279.5
35°	1689.2	1558.9	1294.4	1110.0	1056.0	1076.5	1132.4	1188.2	1221.8	1240.4	1249.7
37.5°	1720.9	1579.3	1283.2	1078.4	1015.0	1033.7	1093.3	1152.9	1188.2	1206.9	1210.6
40°	1760.0	1607.3	1275.8	1048.6	975.9	990.8	1050.4	1115.6	1149.1	1162.2	1169.6
42.5°	1802.8	1637.1	1270.2	1018.8	933.1	948.0	1011.3	1074.6	1108.2	1119.3	1124.9
45°	1856.9	1676.2	1266.5	987.1	897.7	910.7	974.1	1037.4	1065.3	1080.2	1085.8
47.5°	1907.1	1715.3	1255.3	949.8	858.6	877.2	934.9	990.8	1022.5	1031.8	1037.4
50°	1957.4	1748.8	1232.9	908.9	823.2	840.0	892.1	933.1	957.3	968.5	972.2
52.5°	2005.8	1773.0	1197.5	866.0	785.9	797.1	840.0	879.1	895.8	899.6	910.7
55°	2037.5	1786.1	1147.3	815.7	748.7	752.4	784.1	819.5	828.8	830.6	830.6
57.5°	2059.9	1778.6	1087.7	765.5	711.5	711.5	730.1	758.0	761.7	763.6	767.3
60°	2063.6	1752.6	1011.3	718.9	670.5	664.9	683.5	700.3	702.1	705.9	709.6
62.5°	2035.6	1694.8	929.4	674.2	631.4	618.3	635.1	651.9	661.2	666.8	670.5
65°	1950.0	1577.5	836.2	629.5	594.1	571.8	592.3	620.2	638.8	640.7	640.7
67.5°	1771.2	1387.5	737.5	582.9	549.4	528.9	555.0	584.8	607.2	616.5	614.6
70°	1501.1	1177.1	646.3	534.5	504.7	491.7	519.6	553.1	571.8	579.2	582.9
72.5°	1208.7	942.4	566.2	486.1	465.6	458.2	486.1	519.6	545.7	556.9	558.7
75°	940.5	741.3	499.1	435.8	419.0	420.9	450.7	484.2	512.2	517.8	501.0
77.5°	730.1	590.4	435.8	376.2	366.9	379.9	409.7	445.1	461.9	467.5	456.3
80°	527.1	452.6	352.0	296.1	296.1	316.6	342.7	383.7	389.3	381.8	385.5
82.5°	249.6	219.8	173.2	143.4	134.1	149.0	158.3	171.3	186.2	190.0	180.7
85°	33.5	22.3	16.8	18.6	16.8	11.2	7.4	7.4	7.4	5.6	5.6
87.5°	5.6	5.6	3.7	3.7	3.7	3.7	3.7	3.7	1.9	1.9	1.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



LM-79-2019: Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

Report Prepared for

Cooper Lighting Solutions

Streetworks

Report Number: SP1-2407-157-5

Test Date: 08/07/2024

Luminaire Tested: MEM2-HTN-SA-40-740-U-5WQ-2

Data in this report applies to families of products including MEM2-HTN-SA-40-740-U-5WQ-2

**Test Information**

Test Method: LM-79-2019  
 Report Number: SP1-2407-157-5  
 Test Lab: COOPER LIGHTING SOLUTIONS  
 Photometer: SP1 - 76IN SPHERE  
 Measurement Geometry: 4π  
 Issue Date: 08/20/2024  
 Manufacturer: COOPER LIGHTING SOLUTIONS  
 Product Line: Streetworks  
 Catalog Number: **MEM2-HTN-SA-40-740-U-5WQ-2**  
 Description: Epic Modern Light Square 40W 5WQ Optic and Flare Trim

**Spectral Parameters**

CCT (K): 3915  
 CIE u': 0.2262  
 CIE v': 0.5044  
 Duv: 0.0010  
 CIE x: 0.3850  
 CIE y: 0.3816  
 CIE z: 0.2334  
 Peak Wavelength (nm): 449  
 Dominant Wavelength (nm): 578  
 Purity: 30.05482  
 R<sub>f</sub>: 73.2  
 R<sub>g</sub>: 93.9

CRI (Ra):	71.0		
R1:	67.6	R9:	-38.4
R2:	78.3	R10:	48.9
R3:	87.1	R11:	65.3
R4:	69.7	R12:	40.4
R5:	67.4	R13:	69.3
R6:	69.3	R14:	92.6
R7:	79.7	R15:	59.9
R8:	48.7		



**Test Conditions**

Stabilization Time: 21M  
 Operation Time: 1H 21M  
 Sphere Temperature (°C): 24.2

REPORT NUMBER: SP1-2407-157-5

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 4000K 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	112	NR	620	618	NR	750	15	NR	880	0	NR
365	0	NR	495	153	NR	625	563	NR	755	13	NR	885	0	NR
370	0	NR	500	216	NR	630	510	NR	760	11	NR	890	0	NR
375	0	NR	505	291	NR	635	456	NR	765	9	NR	895	0	NR
380	0	NR	510	366	NR	640	407	NR	770	8	NR	900	0	NR
385	0	NR	515	436	NR	645	359	NR	775	7	NR	905	0	NR
390	0	NR	520	492	NR	650	316	NR	780	6	NR	910	0	NR
395	2	NR	525	536	NR	655	277	NR	785	5	NR	915	0	NR
400	4	NR	530	567	NR	660	240	NR	790	4	NR	920	0	NR
405	7	NR	535	596	NR	665	208	NR	795	4	NR	925	0	NR
410	12	NR	540	619	NR	670	179	NR	800	3	NR	930	0	NR
415	25	NR	545	644	NR	675	154	NR	805	3	NR	935	0	NR
420	51	NR	550	671	NR	680	133	NR	810	3	NR	940	0	NR
425	100	NR	555	701	NR	685	114	NR	815	2	NR	945	0	NR
430	180	NR	560	735	NR	690	98	NR	820	2	NR	950	0	NR
435	315	NR	565	768	NR	695	83	NR	825	2	NR	955	0	NR
440	514	NR	570	798	NR	700	71	NR	830	1	NR	960	0	NR
445	828	NR	575	825	NR	705	61	NR	835	1	NR	965	0	NR
450	992	NR	580	843	NR	710	52	NR	840	1	NR	970	0	NR
455	652	NR	585	848	NR	715	44	NR	845	1	NR	975	0	NR
460	382	NR	590	844	NR	720	38	NR	850	1	NR	980	0	NR
465	282	NR	595	826	NR	725	32	NR	855	1	NR	985	0	NR
470	180	NR	600	800	NR	730	28	NR	860	1	NR	990	0	NR
475	119	NR	605	762	NR	735	24	NR	865	1	NR	995	0	NR
480	101	NR	610	719	NR	740	20	NR	870	1	NR	1000	0	NR
485	98	NR	615	669	NR	745	17	NR	875	0	NR			

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**Scotopic Flux vs. Wavelength**



**Scotopic Lumens: NR**

**S/P: 1.49**

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	112	NR	620	618	NR	750	15	NR	880	0	NR
365	0	NR	495	153	NR	625	563	NR	755	13	NR	885	0	NR
370	0	NR	500	216	NR	630	510	NR	760	11	NR	890	0	NR
375	0	NR	505	291	NR	635	456	NR	765	9	NR	895	0	NR
380	0	NR	510	366	NR	640	407	NR	770	8	NR	900	0	NR
385	0	NR	515	436	NR	645	359	NR	775	7	NR	905	0	NR
390	0	NR	520	492	NR	650	316	NR	780	6	NR	910	0	NR
395	2	NR	525	536	NR	655	277	NR	785	5	NR	915	0	NR
400	4	NR	530	567	NR	660	240	NR	790	4	NR	920	0	NR
405	7	NR	535	596	NR	665	208	NR	795	4	NR	925	0	NR
410	12	NR	540	619	NR	670	179	NR	800	3	NR	930	0	NR
415	25	NR	545	644	NR	675	154	NR	805	3	NR	935	0	NR
420	51	NR	550	671	NR	680	133	NR	810	3	NR	940	0	NR
425	100	NR	555	701	NR	685	114	NR	815	2	NR	945	0	NR
430	180	NR	560	735	NR	690	98	NR	820	2	NR	950	0	NR
435	315	NR	565	768	NR	695	83	NR	825	2	NR	955	0	NR
440	514	NR	570	798	NR	700	71	NR	830	1	NR	960	0	NR
445	828	NR	575	825	NR	705	61	NR	835	1	NR	965	0	NR
450	992	NR	580	843	NR	710	52	NR	840	1	NR	970	0	NR
455	652	NR	585	848	NR	715	44	NR	845	1	NR	975	0	NR
460	382	NR	590	844	NR	720	38	NR	850	1	NR	980	0	NR
465	282	NR	595	826	NR	725	32	NR	855	1	NR	985	0	NR
470	180	NR	600	800	NR	730	28	NR	860	1	NR	990	0	NR
475	119	NR	605	762	NR	735	24	NR	865	1	NR	995	0	NR
480	101	NR	610	719	NR	740	20	NR	870	1	NR	1000	0	NR
485	98	NR	615	669	NR	745	17	NR	875	0	NR			

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**Melanopic Flux vs. Wavelength**



**Melanopic Lumens: NR**

**M/P: 2.88**

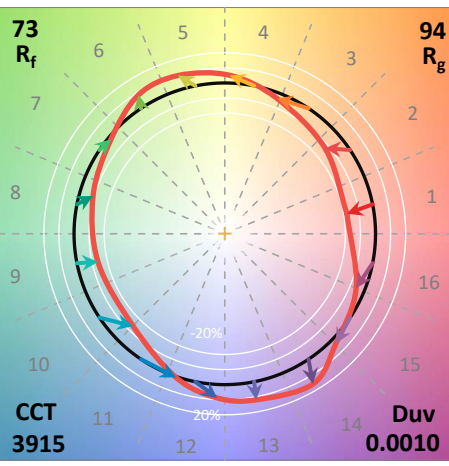
λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)
360	0	NR	490	112	NR	620	618	NR	750	15	NR	880	0	NR
365	0	NR	495	153	NR	625	563	NR	755	13	NR	885	0	NR
370	0	NR	500	216	NR	630	510	NR	760	11	NR	890	0	NR
375	0	NR	505	291	NR	635	456	NR	765	9	NR	895	0	NR
380	0	NR	510	366	NR	640	407	NR	770	8	NR	900	0	NR
385	0	NR	515	436	NR	645	359	NR	775	7	NR	905	0	NR
390	0	NR	520	492	NR	650	316	NR	780	6	NR	910	0	NR
395	2	NR	525	536	NR	655	277	NR	785	5	NR	915	0	NR
400	4	NR	530	567	NR	660	240	NR	790	4	NR	920	0	NR
405	7	NR	535	596	NR	665	208	NR	795	4	NR	925	0	NR
410	12	NR	540	619	NR	670	179	NR	800	3	NR	930	0	NR
415	25	NR	545	644	NR	675	154	NR	805	3	NR	935	0	NR
420	51	NR	550	671	NR	680	133	NR	810	3	NR	940	0	NR
425	100	NR	555	701	NR	685	114	NR	815	2	NR	945	0	NR
430	180	NR	560	735	NR	690	98	NR	820	2	NR	950	0	NR
435	315	NR	565	768	NR	695	83	NR	825	2	NR	955	0	NR
440	514	NR	570	798	NR	700	71	NR	830	1	NR	960	0	NR
445	828	NR	575	825	NR	705	61	NR	835	1	NR	965	0	NR
450	992	NR	580	843	NR	710	52	NR	840	1	NR	970	0	NR
455	652	NR	585	848	NR	715	44	NR	845	1	NR	975	0	NR
460	382	NR	590	844	NR	720	38	NR	850	1	NR	980	0	NR
465	282	NR	595	826	NR	725	32	NR	855	1	NR	985	0	NR
470	180	NR	600	800	NR	730	28	NR	860	1	NR	990	0	NR
475	119	NR	605	762	NR	735	24	NR	865	1	NR	995	0	NR
480	101	NR	610	719	NR	740	20	NR	870	1	NR	1000	0	NR
485	98	NR	615	669	NR	745	17	NR	875	0	NR			

**Summary**

$R_f = 73.2$   
 $R_g = 93.9$   
 $CIE R_a = 71.0$   
 $R_g = -38.4$



**Color Vector Graphics**





**Individual Sample Fidelity Index ( $R_{f,i}$ )**

CES01 = 85	CES26 = 61	CES51 = 88	CES76 = 50
CES02 = 61	CES27 = 88	CES52 = 87	CES77 = 69
CES03 = 30	CES28 = 81	CES53 = 77	CES78 = 53
CES04 = 70	CES29 = 65	CES54 = 84	CES79 = 81
CES05 = 47	CES30 = 81	CES55 = 83	CES80 = 78
CES06 = 50	CES31 = 69	CES56 = 73	CES81 = 77
CES07 = 40	CES32 = 60	CES57 = 72	CES82 = 91
CES08 = 39	CES33 = 76	CES58 = 73	CES83 = 89
CES09 = 29	CES34 = 70	CES59 = 85	CES84 = 86
CES10 = 74	CES35 = 83	CES60 = 89	CES85 = 77
CES11 = 57	CES36 = 91	CES61 = 81	CES86 = 71
CES12 = 63	CES37 = 79	CES62 = 85	CES87 = 76
CES13 = 42	CES38 = 92	CES63 = 72	CES88 = 80
CES14 = 74	CES39 = 96	CES64 = 64	CES89 = 70
CES15 = 71	CES40 = 91	CES65 = 61	CES90 = 79
CES16 = 46	CES41 = 93	CES66 = 57	CES91 = 74
CES17 = 49	CES42 = 80	CES67 = 54	CES92 = 57
CES18 = 56	CES43 = 76	CES68 = 63	CES93 = 74
CES19 = 72	CES44 = 99	CES69 = 73	CES94 = 51
CES20 = 65	CES45 = 85	CES70 = 55	CES95 = 65
CES21 = 86	CES46 = 82	CES71 = 48	CES96 = 76
CES22 = 78	CES47 = 86	CES72 = 83	CES97 = 84
CES23 = 92	CES48 = 77	CES73 = 45	CES98 = 75
CES24 = 91	CES49 = 80	CES74 = 93	CES99 = 62
CES25 = 72	CES50 = 88	CES75 = 51	



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)