

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: P871038

Luminaire Tested: **EMM2-HSN-SA2C-830-U-T2R**

Issue Date: 09/05/2024



**Test Information**

Test Method: LM-79-08  
Report Number: P871038  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 09/05/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: EMM2-HSN-SA2C-830-U-T2R  
Description: EPIC MODERN SHORT HOUSING DISCRETE LED ARRAYS 120W 80CRI 3000K  
FITXURE w/ TYPE II ROADWAY DISTRIBUTION OPTIC  
Light Source: (20) 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

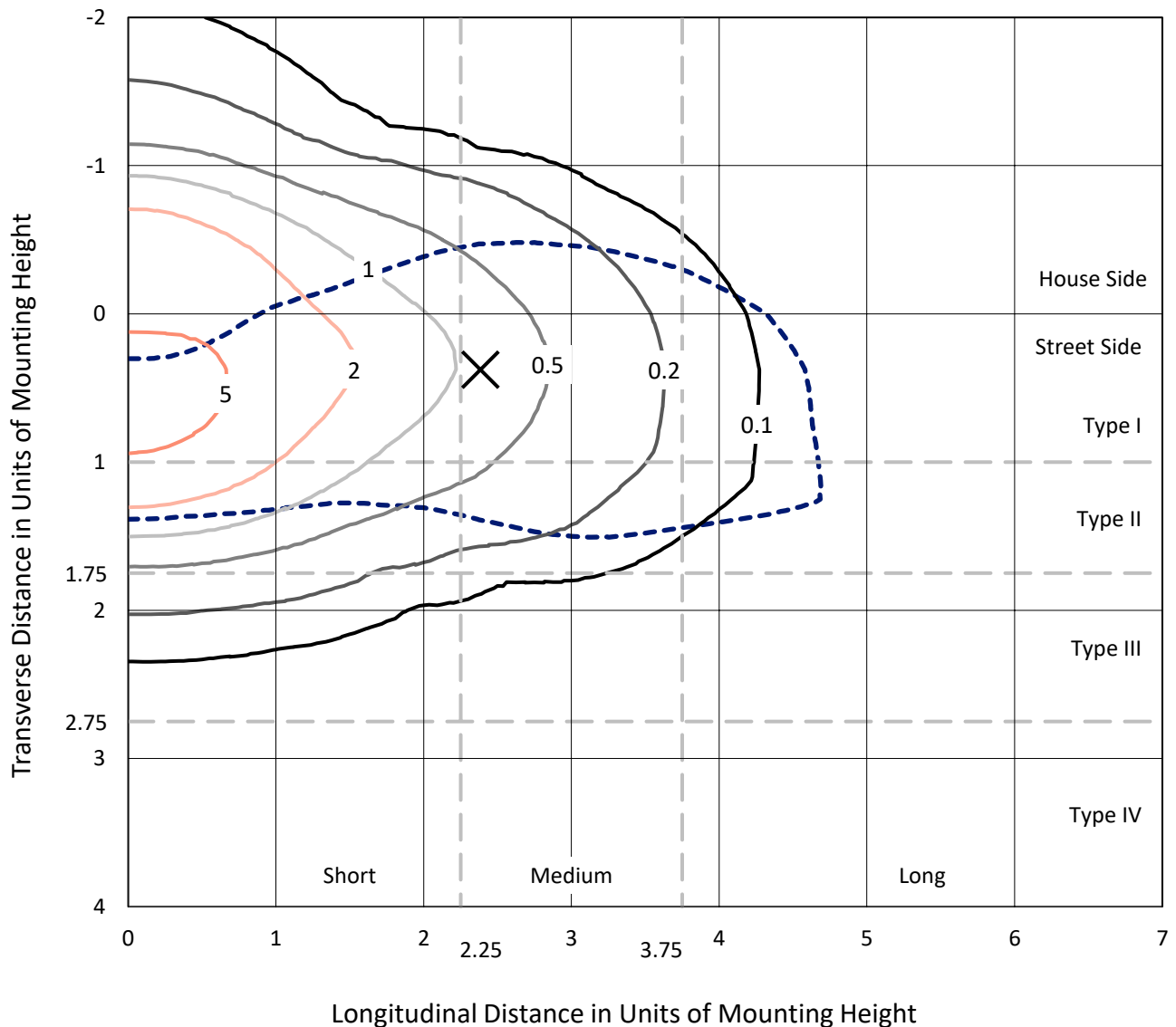
Lumens per Lamp: N/A  
Luminaire Lumens: 12079.5 lumens  
Efficiency: N/A  
Efficacy: 119.6 lumens/watt  
Luminous Opening: Rectangular (W 0.67' x L: 0.33' x H: 0')  
IES Classification: Type II - Medium  
BUG Rating: B2 - U0 - G2

Input Watts (W): 101  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: 0.99  
Total Harmonic Distortion (THDi): 9.45%  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT

REPORT NUMBER: P871038  
 CATALOG NUMBER: EMM2-HSN-SA2C-830-U-T2R

### Iso-Footcandle Lines of Horizontal Illumination

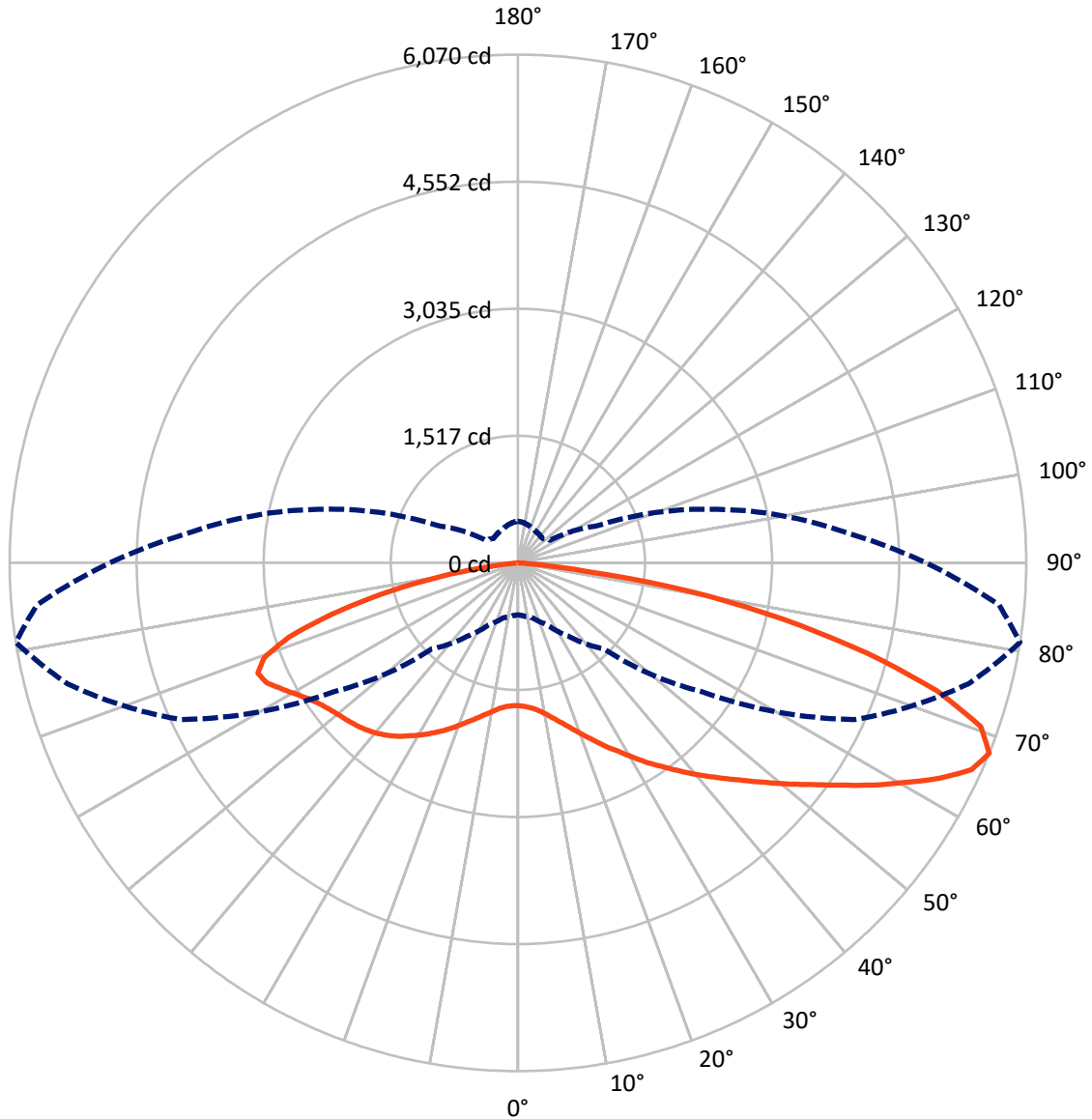
× Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 7.7 fc  
 Type II - Medium - N/A

REPORT NUMBER: P871038  
CATALOG NUMBER: EMM2-HSN-SA2C-830-U-T2R

### Luminous Intensity Polar Plot



— Vertical Plane Through 81-Deg Lateral      - - - Horizontal Cone Through 67.5-Deg Vertical

REPORT NUMBER: P871038  
 CATALOG NUMBER: EMM2-HSN-SA2C-830-U-T2R

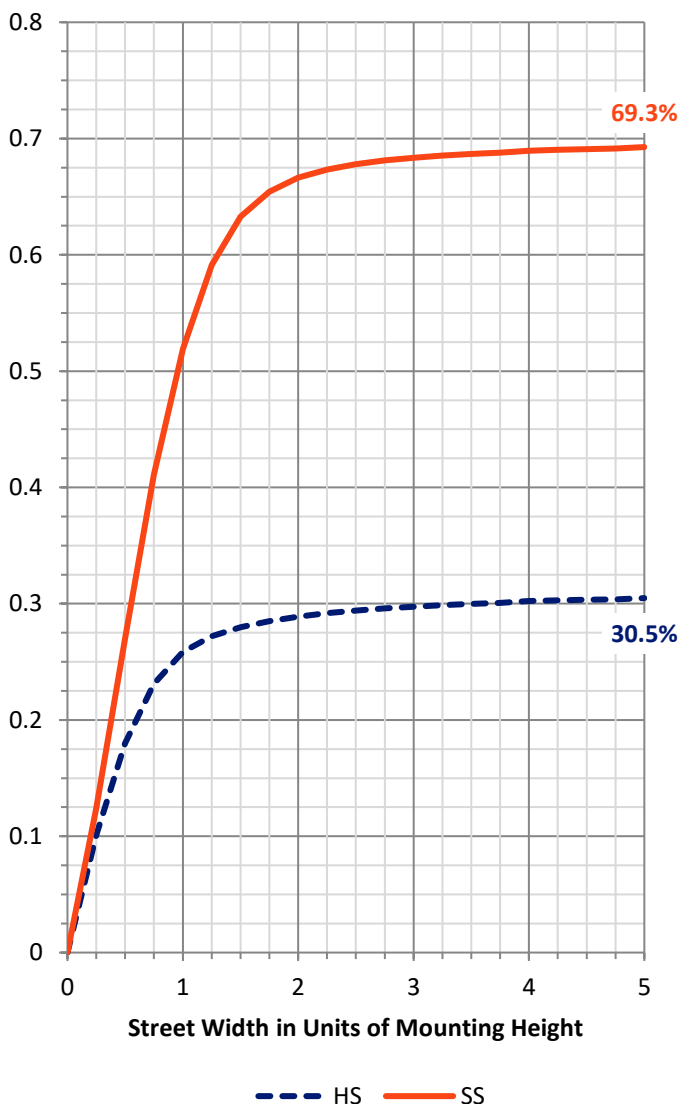
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	3701.4	0.0	3701.4
	% Fixture	30.6	0.0	30.6
<b>Street Side</b>	Lumens	8378.0	0.0	8378.0
	% Fixture	69.4	0.0	69.4
<b>Total</b>	Lumens	12079.5	0.0	12079.5
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	173.9	1.4
10°-20°	617.3	5.1
20°-30°	1229.5	10.2
30°-40°	1931.7	16.0
40°-50°	2395.6	19.8
50°-60°	2341.8	19.4
60°-70°	1969.3	16.3
70°-80°	1251.3	10.4
80°-90°	168.9	1.4
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°	12079.5	100.0
0°-180°	12079.5	100.0

**Coefficient of Utilization**



REPORT NUMBER: P871038

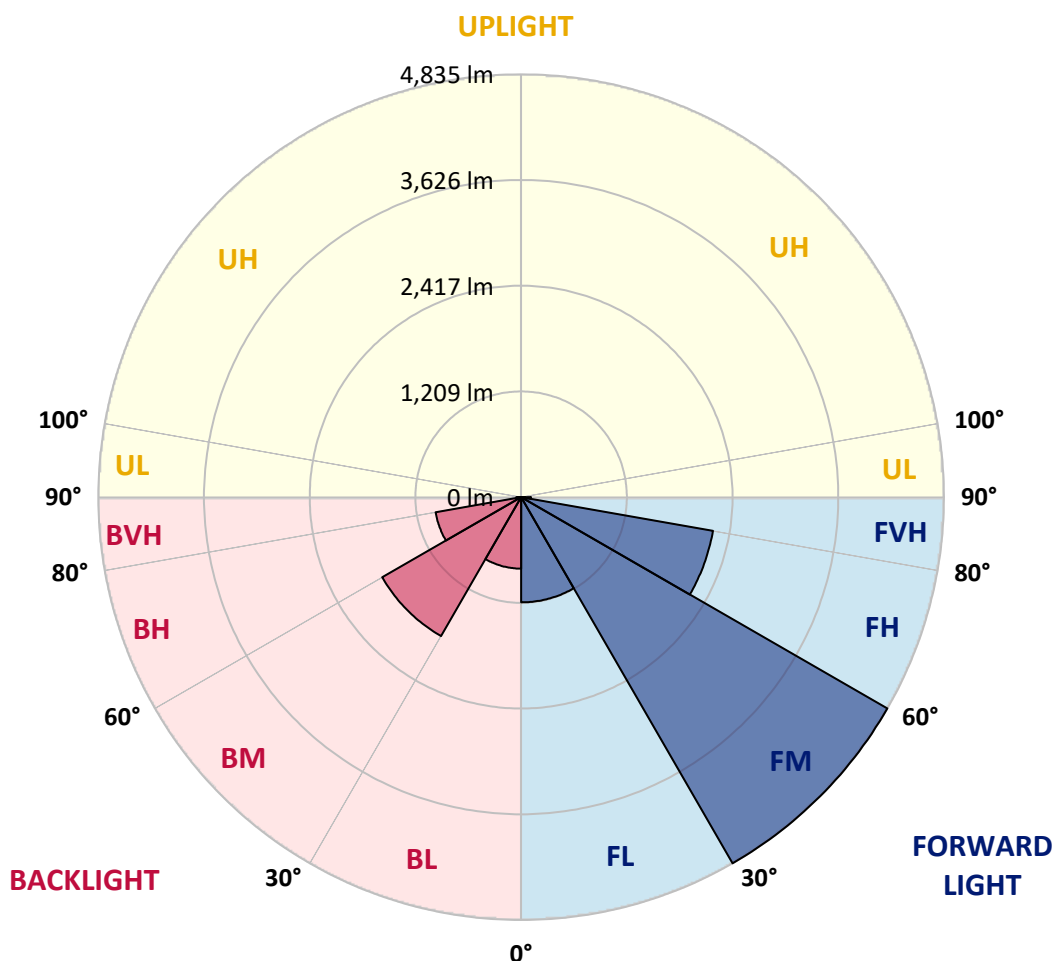
CATALOG NUMBER: EMM2-HSN-SA2C-830-U-T2R

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1203.2	10.0			
FM (30°-60°)	4834.6	40.0			
FH (60°-80°)	2227.1	18.4			G2/5000
FVH (80°-90°)	113.2	0.9			G2/225
BL (0°-30°)	817.6	6.8	B2/1000		
BM (30°-60°)	1834.5	15.2	B2/2500		
BH (60°-80°)	993.6	8.2	B2/1000		G2/1000
BVH (80°-90°)	55.7	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 II Medium





REPORT NUMBER: P871038

CATALOG NUMBER: EMM2-HSN-SA2C-830-U-T2R

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	81°	85°
0°	1705.4	1705.4	1705.4	1705.4	1705.4	1705.4	1705.4	1705.4	1705.4	1705.4	1705.4
2.5°	1765.3	1762.9	1762.9	1743.7	1743.7	1738.9	1741.3	1727.0	1719.8	1717.4	1715.0
5°	1892.2	1892.2	1877.9	1865.9	1841.9	1820.4	1801.2	1772.5	1750.9	1741.3	1734.2
7.5°	2083.9	2069.5	2064.7	2028.8	1978.5	1935.4	1897.0	1834.8	1794.0	1779.7	1770.1
10°	2318.6	2299.4	2263.5	2222.8	2158.1	2093.4	2016.8	1933.0	1865.9	1837.1	1825.2
12.5°	2560.5	2534.2	2483.9	2445.5	2361.7	2263.5	2155.7	2040.7	1947.3	1906.6	1885.1
15°	2826.4	2812.0	2752.1	2675.5	2577.3	2438.4	2304.2	2162.9	2043.1	1985.7	1949.7
17.5°	3113.8	3092.3	3027.6	2934.2	2795.2	2630.0	2474.3	2292.2	2153.3	2079.1	2038.3
20°	3396.4	3391.7	3295.8	3207.2	3044.3	2838.4	2637.2	2445.5	2270.7	2184.5	2131.8
22.5°	3712.6	3681.5	3597.6	3473.1	3279.1	3089.9	2852.7	2603.6	2397.6	2297.0	2237.2
25°	4040.8	4038.4	3935.4	3782.1	3554.5	3315.0	3058.7	2783.3	2548.5	2426.4	2347.3
27.5°	4448.0	4416.8	4285.1	4110.2	3846.8	3571.3	3274.3	2970.1	2692.2	2546.1	2450.3
30°	4804.8	4795.3	4646.8	4450.4	4155.7	3827.6	3506.6	3180.9	2862.3	2689.9	2584.5
32.5°	5094.7	5082.7	4955.7	4759.3	4443.2	4103.0	3734.2	3379.7	3032.4	2845.5	2706.6
35°	5336.6	5317.4	5185.7	4989.3	4716.2	4371.3	3978.5	3588.1	3219.2	2991.7	2859.9
37.5°	5432.4	5415.6	5307.8	5145.0	4893.5	4577.3	4198.9	3818.0	3406.0	3156.9	3008.4
40°	5396.5	5386.9	5310.2	5197.7	5006.0	4742.6	4409.6	4057.5	3616.8	3331.8	3154.5
42.5°	5226.4	5226.4	5178.5	5121.0	5025.2	4836.0	4596.5	4287.5	3820.4	3506.6	3293.5
45°	4986.9	4977.3	4960.5	4939.0	4924.6	4852.8	4718.6	4486.3	4045.6	3698.2	3461.1
47.5°	4668.3	4675.5	4663.5	4673.1	4733.0	4778.5	4771.3	4670.7	4275.5	3909.0	3626.4
50°	4167.7	4201.2	4239.6	4352.1	4474.3	4601.3	4718.6	4802.5	4546.2	4148.6	3818.0
52.5°	3547.3	3561.7	3664.7	3930.6	4191.7	4359.3	4582.1	4862.3	4785.7	4397.7	4043.2
55°	2783.3	2809.6	2965.3	3341.4	3806.0	4127.0	4388.1	4836.0	5030.0	4682.7	4306.6
57.5°	1995.2	2012.0	2261.1	2649.1	3255.1	3794.1	4167.7	4730.6	5226.4	5006.0	4577.3
60°	1418.0	1449.1	1609.6	1988.0	2570.1	3334.2	3966.5	4577.3	5408.4	5322.2	4931.8
62.5°	1046.7	1063.5	1176.1	1451.5	1930.6	2706.6	3705.4	4464.7	5528.2	5662.3	5286.3
65°	788.0	795.2	871.9	1061.1	1444.3	1995.2	3293.5	4443.2	5595.3	5952.2	5600.1
67.5°	620.4	632.3	680.2	809.6	1075.5	1451.5	2682.7	4428.8	5571.3	6069.5	5765.3
70°	522.2	524.6	560.5	632.3	804.8	1044.3	2004.8	4213.2	5437.2	5863.5	5612.0
72.5°	452.7	452.7	469.5	527.0	646.7	790.4	1365.3	3698.2	5097.1	5238.4	5080.3
75°	366.5	364.1	392.8	447.9	519.8	608.4	917.4	2800.0	4383.3	4311.4	4182.1
77.5°	318.6	316.2	340.1	388.0	428.7	486.2	627.6	1818.0	3449.1	3233.6	3152.1
80°	273.1	265.9	285.0	330.5	352.1	378.4	433.5	1058.7	2253.9	2119.8	2021.6
82.5°	206.0	189.2	184.4	222.8	237.1	220.4	220.4	371.3	819.2	826.4	764.1
85°	16.8	19.2	24.0	28.7	40.7	45.5	47.9	79.0	122.2	117.4	119.8
87.5°	2.4	2.4	2.4	4.8	4.8	7.2	7.2	7.2	9.6	9.6	9.6
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: P871038  
 CATALOG NUMBER: EMM2-HSN-SA2C-830-U-T2R

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1705.4	1705.4	1705.4	1705.4	1705.4	1705.4	1705.4	1705.4	1705.4	1705.4	1705.4
2.5°	1712.6	1707.8	1703.0	1703.0	1703.0	1698.2	1695.8	1695.8	1693.4	1686.2	1683.9
5°	1729.4	1722.2	1715.0	1715.0	1715.0	1712.6	1710.2	1712.6	1710.2	1703.0	1700.6
7.5°	1762.9	1753.3	1743.7	1743.7	1748.5	1746.1	1746.1	1748.5	1746.1	1738.9	1736.5
10°	1810.8	1796.4	1791.6	1791.6	1796.4	1794.0	1791.6	1791.6	1789.2	1777.3	1782.1
12.5°	1863.5	1849.1	1844.3	1846.7	1844.3	1839.5	1841.9	1834.8	1832.4	1813.2	1810.8
15°	1930.6	1913.8	1904.2	1906.6	1899.4	1889.8	1880.3	1875.5	1865.9	1849.1	1844.3
17.5°	2007.2	1980.9	1968.9	1968.9	1954.5	1935.4	1921.0	1906.6	1892.2	1873.1	1868.3
20°	2081.5	2057.5	2038.3	2033.6	2004.8	1973.7	1947.3	1923.4	1906.6	1885.1	1880.3
22.5°	2174.9	2141.3	2115.0	2093.4	2050.3	2000.0	1959.3	1925.8	1901.8	1877.9	1870.7
25°	2273.1	2225.2	2182.1	2141.3	2081.5	2009.6	1952.1	1904.2	1873.1	1846.7	1841.9
27.5°	2371.3	2309.0	2246.7	2182.1	2091.0	1997.6	1916.2	1858.7	1818.0	1784.5	1779.7
30°	2476.7	2400.0	2301.8	2208.4	2088.6	1966.5	1863.5	1782.1	1734.2	1695.8	1691.0
32.5°	2584.5	2488.7	2354.5	2227.6	2076.7	1921.0	1786.8	1700.6	1640.7	1597.6	1585.6
35°	2704.2	2586.9	2402.4	2234.8	2043.1	1853.9	1705.4	1597.6	1528.2	1485.0	1475.5
37.5°	2826.4	2677.9	2433.6	2230.0	1995.2	1774.9	1600.0	1489.8	1408.4	1348.5	1338.9
40°	2950.9	2761.7	2452.7	2206.0	1928.2	1676.7	1501.8	1367.7	1250.3	1195.2	1168.9
42.5°	3065.9	2838.4	2462.3	2172.5	1853.9	1573.7	1372.5	1197.6	1087.4	1027.6	1039.5
45°	3185.7	2910.2	2464.7	2131.8	1755.7	1441.9	1209.6	1046.7	936.5	891.0	886.2
47.5°	3288.7	2970.1	2459.9	2074.3	1645.5	1291.0	1039.5	883.8	802.4	759.3	754.5
50°	3425.2	3037.2	2452.7	2007.2	1501.8	1118.6	881.4	754.5	680.2	646.7	644.3
52.5°	3561.7	3111.4	2447.9	1913.8	1350.9	955.7	737.7	637.1	586.8	570.1	565.3
55°	3741.4	3202.4	2450.3	1806.0	1178.5	788.0	625.2	555.7	529.3	522.2	522.2
57.5°	3947.4	3319.8	2464.7	1686.2	998.8	651.5	543.7	512.6	510.2	515.0	517.4
60°	4196.5	3475.5	2493.4	1561.7	833.5	550.9	495.8	493.4	500.6	517.4	522.2
62.5°	4476.7	3645.6	2529.4	1398.8	675.5	483.8	469.5	479.0	488.6	507.8	510.2
65°	4723.4	3837.2	2550.9	1243.1	565.3	445.5	452.7	457.5	481.4	507.8	507.8
67.5°	4871.9	3976.1	2469.5	1046.7	471.9	412.0	426.4	440.7	467.1	491.0	495.8
70°	4821.6	3930.6	2191.6	812.0	400.0	380.8	397.6	419.2	445.5	474.3	488.6
72.5°	4471.9	3607.2	1779.7	591.6	347.3	352.1	373.7	402.4	426.4	457.5	476.7
75°	3739.0	3010.8	1283.8	426.4	304.2	323.4	356.9	380.8	397.6	404.8	407.2
77.5°	2838.4	2213.2	874.3	318.6	263.5	289.8	325.8	352.1	356.9	361.7	366.5
80°	1853.9	1408.4	493.4	222.8	201.2	237.1	265.9	294.6	285.0	299.4	304.2
82.5°	783.2	615.6	225.2	110.2	93.4	100.6	107.8	95.8	88.6	88.6	76.6
85°	103.0	79.0	33.5	14.4	12.0	7.2	7.2	7.2	4.8	4.8	4.8
87.5°	9.6	9.6	7.2	7.2	4.8	4.8	2.4	4.8	2.4	2.4	2.4
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: SP1-2407-157-7

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**

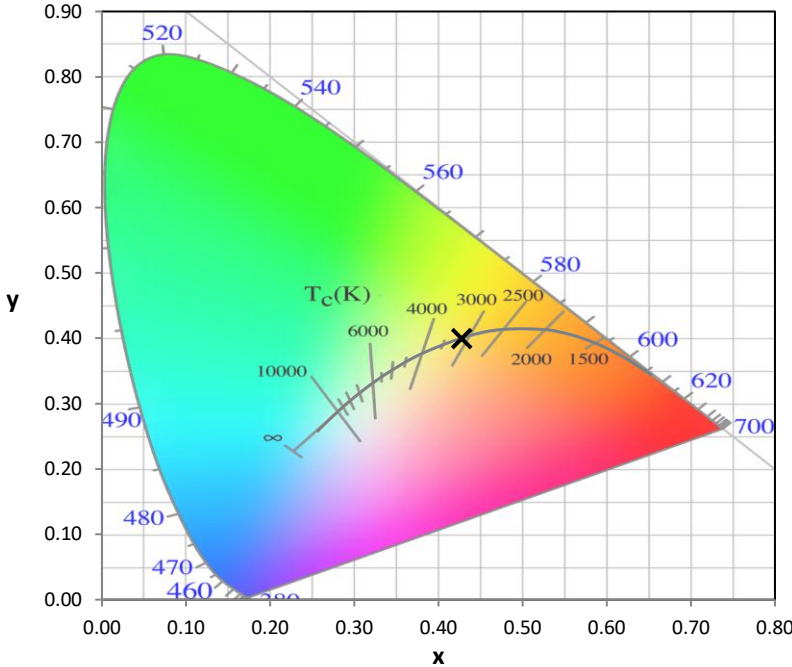
Stabilization Time: 22M  
 Operation Time: 1H 22M  
 Sphere Temperature (°C): 24.3

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



Point lies inside the ANSI 3000K 4-step quadrangle

REPORT NUMBER: SP1-2407-157-7

**Photopic Flux vs. Wavelength**

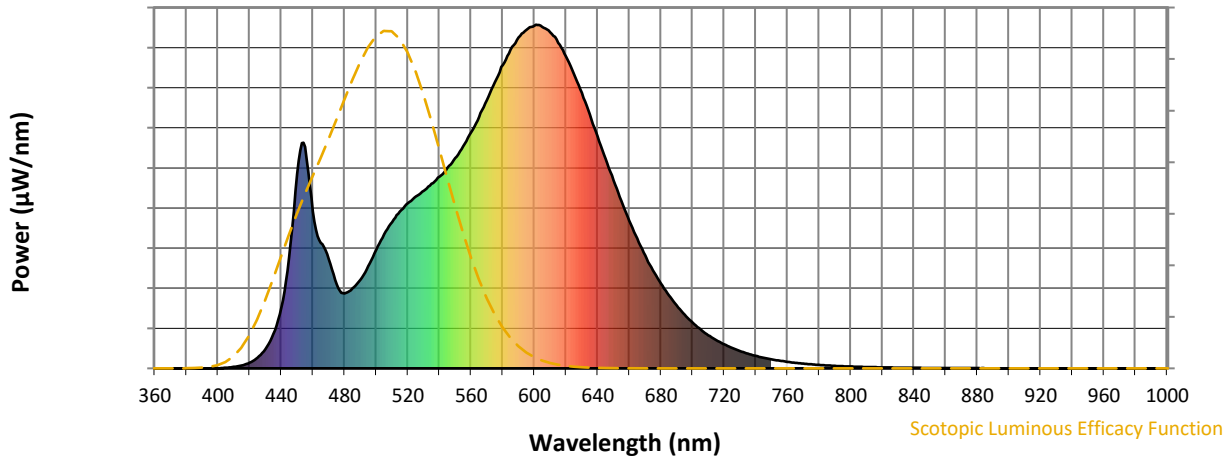


**Photopic Lumens: NR**

$\lambda$ (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**

$\lambda$ (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

**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)