

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: P871037

Luminaire Tested: **EMM2-HSN-SA2B-830-U-T2R**

Issue Date: 09/05/2024



**Test Information**

Test Method: LM-79-08  
Report Number: P871037  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 09/05/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: EMM2-HSN-SA2B-830-U-T2R  
Description: EPIC MODERN SHORT HOUSING DISCRETE LED ARRAYS 100W 80CRI 3000K  
FIXTURE w/ TYPE II ROADWAY DISTRIBUTION OPTIC  
Light Source: (20) 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

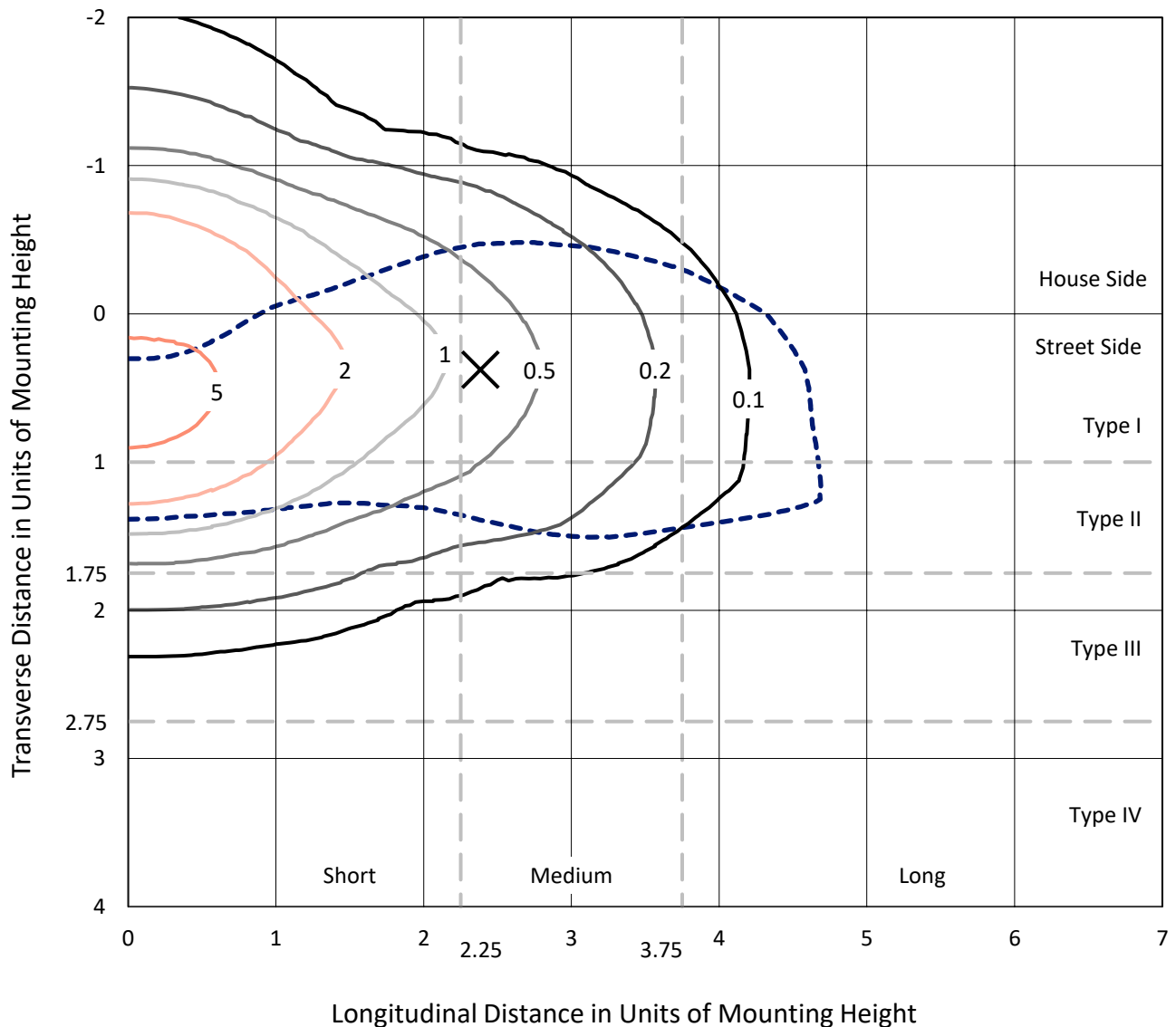
Lumens per Lamp: N/A  
Luminaire Lumens: 11276.1 lumens  
Efficiency: N/A  
Efficacy: 125.3 lumens/watt  
Luminous Opening: Rectangular (W 0.67' x L: 0.33' x H: 0')  
IES Classification: Type II - Medium  
BUG Rating: B2 - U0 - G2

Input Watts (W): 90  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: 0.99  
Total Harmonic Distortion (THDi): 6.20%  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT

REPORT NUMBER: P871037  
 CATALOG NUMBER: EMM2-HSN-SA2B-830-U-T2R

### Iso-Footcandle Lines of Horizontal Illumination

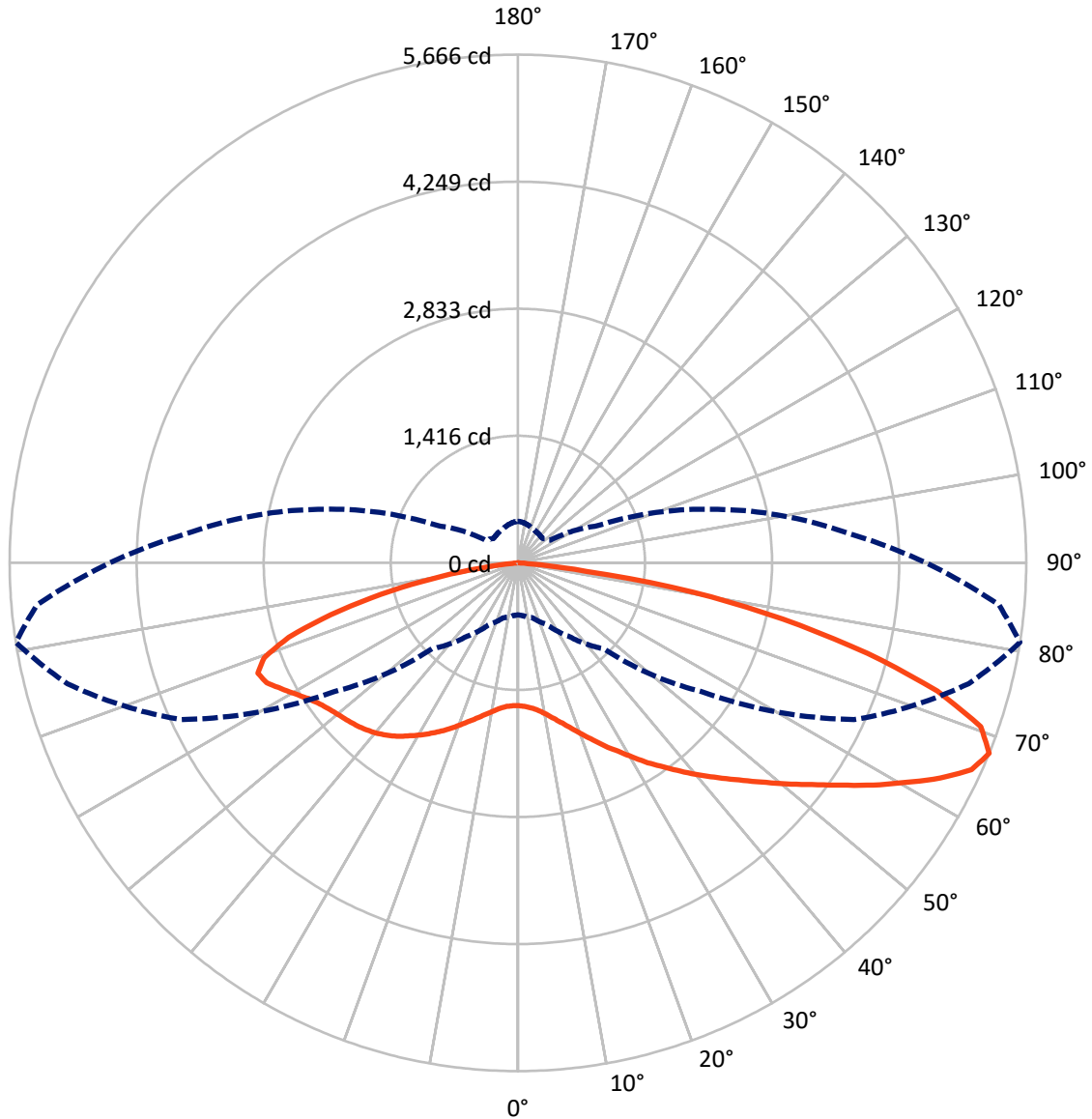
× Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 7.2 fc  
 Type II - Medium - N/A

REPORT NUMBER: P871037  
CATALOG NUMBER: EMM2-HSN-SA2B-830-U-T2R

### Luminous Intensity Polar Plot



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

REPORT NUMBER: P871037  
 CATALOG NUMBER: EMM2-HSN-SA2B-830-U-T2R

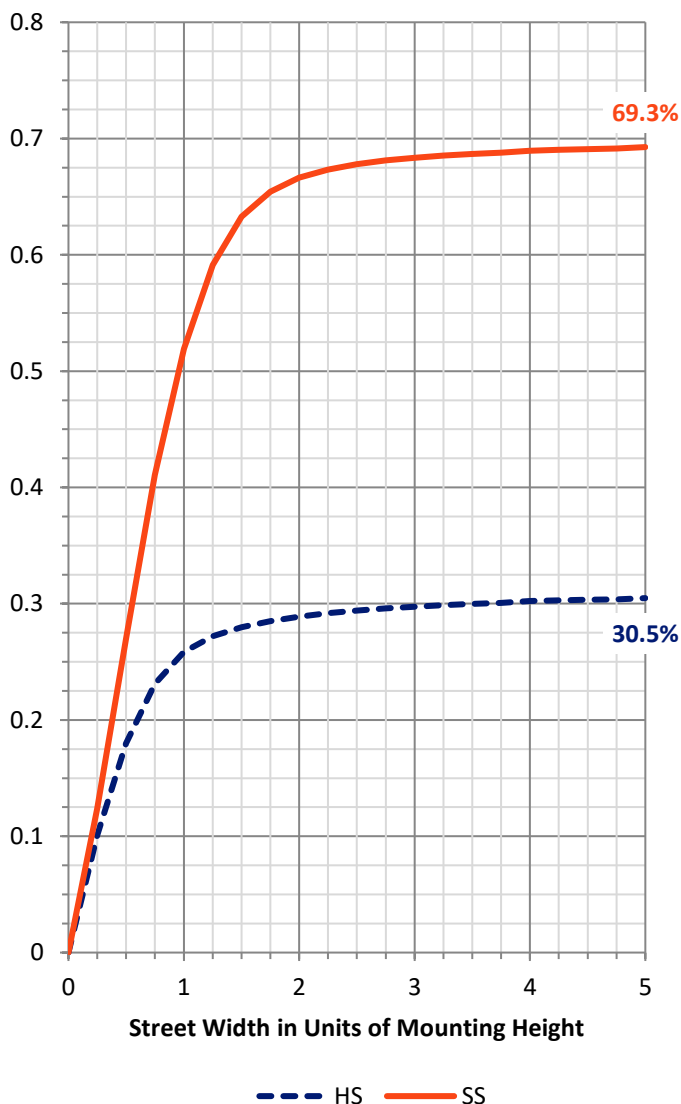
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	3455.3	0.0	3455.3
	% Fixture	30.6	0.0	30.6
<b>Street Side</b>	Lumens	7820.8	0.0	7820.8
	% Fixture	69.4	0.0	69.4
<b>Total</b>	Lumens	11276.1	0.0	11276.1
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	162.3	1.4
10°-20°	576.3	5.1
20°-30°	1147.8	10.2
30°-40°	1803.2	16.0
40°-50°	2236.3	19.8
50°-60°	2186.1	19.4
60°-70°	1838.4	16.3
70°-80°	1168.1	10.4
80°-90°	157.7	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°	11276.1	100.0
0°-180°	11276.1	100.0

**Coefficient of Utilization**



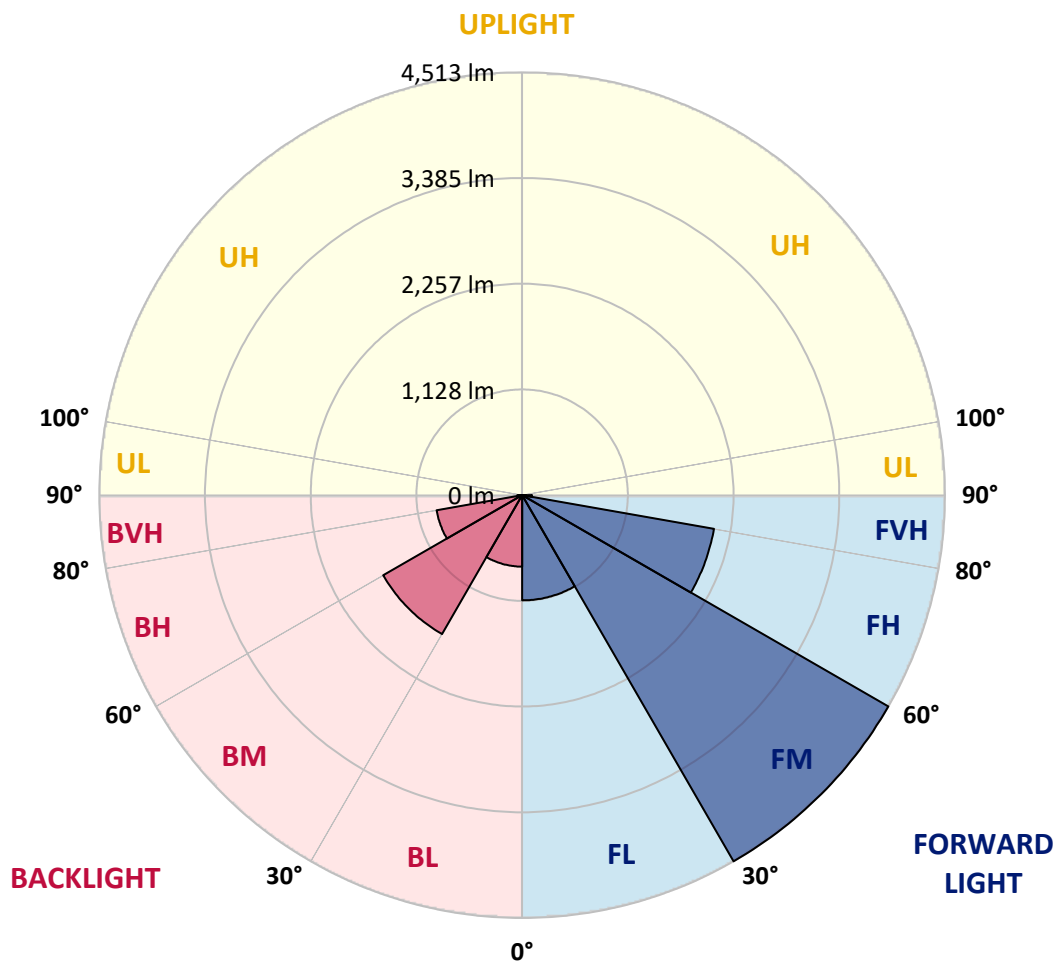
REPORT NUMBER: P871037  
 CATALOG NUMBER: EMM2-HSN-SA2B-830-U-T2R

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1123.2	10.0			
FM	(30°-60°)	4513.0	40.0			
FH	(60°-80°)	2079.0	18.4			G2/5000
FVH	(80°-90°)	105.6	0.9			G2/225
BL	(0°-30°)	763.2	6.8	B2/1000		
BM	(30°-60°)	1712.5	15.2	B2/2500		
BH	(60°-80°)	927.5	8.2	B2/1000		G2/1000
BVH	(80°-90°)	52.0	0.5			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G2**

Type II Medium





REPORT NUMBER: P871037

CATALOG NUMBER: EMM2-HSN-SA2B-830-U-T2R

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	81°	85°
0°	1592.0	1592.0	1592.0	1592.0	1592.0	1592.0	1592.0	1592.0	1592.0	1592.0	1592.0
2.5°	1647.9	1645.6	1645.6	1627.8	1627.8	1623.3	1625.5	1612.1	1605.4	1603.2	1600.9
5°	1766.4	1766.4	1753.0	1741.8	1719.4	1699.3	1681.4	1654.6	1634.5	1625.5	1618.8
7.5°	1945.3	1931.8	1927.4	1893.8	1846.9	1806.6	1770.9	1712.7	1674.7	1661.3	1652.3
10°	2164.4	2146.5	2112.9	2074.9	2014.6	1954.2	1882.6	1804.4	1741.8	1715.0	1703.8
12.5°	2390.2	2365.6	2318.7	2282.9	2204.6	2112.9	2012.3	1905.0	1817.8	1779.8	1759.7
15°	2638.4	2625.0	2569.1	2497.5	2405.9	2276.2	2151.0	2019.0	1907.2	1853.6	1820.0
17.5°	2906.7	2886.6	2826.2	2739.0	2609.3	2455.0	2309.7	2139.8	2010.1	1940.8	1902.8
20°	3170.5	3166.1	3076.6	2993.9	2841.9	2649.6	2461.8	2282.9	2119.7	2039.2	1990.0
22.5°	3465.7	3436.6	3358.4	3242.1	3061.0	2884.3	2663.0	2430.5	2238.2	2144.3	2088.4
25°	3772.0	3769.8	3673.6	3530.5	3318.1	3094.5	2855.3	2598.1	2379.0	2265.0	2191.2
27.5°	4152.1	4123.0	4000.1	3836.8	3590.9	3333.8	3056.5	2772.5	2513.2	2376.8	2287.4
30°	4485.3	4476.3	4337.7	4154.3	3879.3	3573.0	3273.4	2969.3	2671.9	2510.9	2412.6
32.5°	4755.8	4744.6	4626.1	4442.8	4147.6	3830.1	3485.8	3154.9	2830.7	2656.3	2526.6
35°	4981.6	4963.8	4840.8	4657.4	4402.5	4080.6	3713.9	3349.4	3005.1	2792.7	2669.7
37.5°	5071.1	5055.4	4954.8	4802.8	4568.0	4272.9	3919.6	3564.1	3179.5	2946.9	2808.3
40°	5037.5	5028.6	4957.0	4852.0	4673.1	4427.1	4116.3	3787.7	3376.2	3110.2	2944.7
42.5°	4878.8	4878.8	4834.1	4780.4	4691.0	4514.3	4290.7	4002.3	3566.3	3273.4	3074.4
45°	4655.2	4646.3	4630.6	4610.5	4597.1	4530.0	4404.8	4187.9	3776.5	3452.3	3230.9
47.5°	4357.8	4364.5	4353.3	4362.3	4418.2	4460.7	4454.0	4360.1	3991.1	3649.0	3385.2
50°	3890.5	3921.8	3957.6	4062.7	4176.7	4295.2	4404.8	4483.0	4243.8	3872.6	3564.1
52.5°	3311.4	3324.8	3421.0	3669.2	3912.9	4069.4	4277.3	4538.9	4467.4	4105.2	3774.2
55°	2598.1	2622.7	2768.1	3119.1	3552.9	3852.5	4096.2	4514.3	4695.4	4371.2	4020.2
57.5°	1862.5	1878.2	2110.7	2472.9	3038.6	3541.7	3890.5	4416.0	4878.8	4673.1	4272.9
60°	1323.7	1352.7	1502.5	1855.8	2399.1	3112.4	3702.7	4272.9	5048.7	4968.2	4603.8
62.5°	977.1	992.8	1097.8	1355.0	1802.2	2526.6	3459.0	4167.8	5160.5	5285.7	4934.7
65°	735.6	742.3	813.9	990.5	1348.3	1862.5	3074.4	4147.6	5223.1	5556.3	5227.6
67.5°	579.1	590.3	635.0	755.7	1003.9	1355.0	2504.2	4134.2	5200.8	5665.8	5381.9
70°	487.4	489.7	523.2	590.3	751.3	974.9	1871.5	3933.0	5075.6	5473.5	5238.8
72.5°	422.6	422.6	438.2	491.9	603.7	737.9	1274.5	3452.3	4758.0	4890.0	4742.4
75°	342.1	339.9	366.7	418.1	485.2	567.9	856.4	2613.8	4091.7	4024.7	3903.9
77.5°	297.4	295.1	317.5	362.2	400.2	453.9	585.8	1697.1	3219.7	3018.5	2942.5
80°	254.9	248.2	266.1	308.6	328.7	353.3	404.7	988.3	2104.0	1978.8	1887.1
82.5°	192.3	176.6	172.2	207.9	221.4	205.7	205.7	346.6	764.7	771.4	713.3
85°	15.7	17.9	22.4	26.8	38.0	42.5	44.7	73.8	114.0	109.6	111.8
87.5°	2.2	2.2	2.2	4.5	4.5	6.7	6.7	6.7	8.9	8.9	8.9
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: P871037

CATALOG NUMBER: EMM2-HSN-SA2B-830-U-T2R

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1592.0	1592.0	1592.0	1592.0	1592.0	1592.0	1592.0	1592.0	1592.0	1592.0	1592.0
2.5°	1598.7	1594.2	1589.7	1589.7	1589.7	1585.3	1583.0	1583.0	1580.8	1574.1	1571.9
5°	1614.3	1607.6	1600.9	1600.9	1600.9	1598.7	1596.5	1598.7	1596.5	1589.7	1587.5
7.5°	1645.6	1636.7	1627.8	1627.8	1632.2	1630.0	1630.0	1632.2	1630.0	1623.3	1621.0
10°	1690.4	1676.9	1672.5	1672.5	1676.9	1674.7	1672.5	1672.5	1670.2	1659.1	1663.5
12.5°	1739.6	1726.1	1721.7	1723.9	1721.7	1717.2	1719.4	1712.7	1710.5	1692.6	1690.4
15°	1802.2	1786.5	1777.6	1779.8	1773.1	1764.1	1755.2	1750.7	1741.8	1726.1	1721.7
17.5°	1873.7	1849.1	1837.9	1837.9	1824.5	1806.6	1793.2	1779.8	1766.4	1748.5	1744.0
20°	1943.0	1920.7	1902.8	1898.3	1871.5	1842.4	1817.8	1795.4	1779.8	1759.7	1755.2
22.5°	2030.2	1998.9	1974.3	1954.2	1914.0	1867.0	1829.0	1797.7	1775.3	1753.0	1746.3
25°	2121.9	2077.2	2036.9	1998.9	1943.0	1875.9	1822.3	1777.6	1748.5	1723.9	1719.4
27.5°	2213.6	2155.4	2097.3	2036.9	1952.0	1864.8	1788.7	1735.1	1697.1	1665.8	1661.3
30°	2311.9	2240.4	2148.7	2061.5	1949.7	1835.7	1739.6	1663.5	1618.8	1583.0	1578.6
32.5°	2412.6	2323.1	2197.9	2079.4	1938.5	1793.2	1668.0	1587.5	1531.6	1491.4	1480.2
35°	2524.4	2414.8	2242.6	2086.1	1907.2	1730.6	1592.0	1491.4	1426.5	1386.3	1377.3
37.5°	2638.4	2499.8	2271.7	2081.6	1862.5	1656.8	1493.6	1390.7	1314.7	1258.8	1249.9
40°	2754.7	2578.0	2289.6	2059.3	1799.9	1565.1	1401.9	1276.7	1167.2	1115.7	1091.1
42.5°	2862.0	2649.6	2298.5	2028.0	1730.6	1469.0	1281.2	1118.0	1015.1	959.2	970.4
45°	2973.8	2716.6	2300.8	1990.0	1638.9	1346.0	1129.1	977.1	874.2	831.8	827.3
47.5°	3069.9	2772.5	2296.3	1936.3	1536.1	1205.2	970.4	825.1	749.0	708.8	704.3
50°	3197.4	2835.2	2289.6	1873.7	1401.9	1044.2	822.8	704.3	635.0	603.7	601.5
52.5°	3324.8	2904.5	2285.1	1786.5	1261.1	892.1	688.7	594.8	547.8	532.2	527.7
55°	3492.5	2989.4	2287.4	1685.9	1100.1	735.6	583.6	518.7	494.1	487.4	487.4
57.5°	3684.8	3099.0	2300.8	1574.1	932.4	608.2	507.6	478.5	476.3	480.7	483.0
60°	3917.3	3244.3	2327.6	1457.8	778.1	514.3	462.8	460.6	467.3	483.0	487.4
62.5°	4178.9	3403.1	2361.1	1305.8	630.5	451.7	438.2	447.2	456.1	474.0	476.3
65°	4409.2	3582.0	2381.3	1160.4	527.7	415.9	422.6	427.1	449.4	474.0	474.0
67.5°	4547.9	3711.6	2305.2	977.1	440.5	384.6	398.0	411.4	436.0	458.4	462.8
70°	4500.9	3669.2	2045.9	758.0	373.4	355.5	371.2	391.3	415.9	442.7	456.1
72.5°	4174.5	3367.3	1661.3	552.3	324.2	328.7	348.8	375.6	398.0	427.1	444.9
75°	3490.3	2810.6	1198.5	398.0	284.0	301.8	333.2	355.5	371.2	377.9	380.1
77.5°	2649.6	2066.0	816.1	297.4	246.0	270.5	304.1	328.7	333.2	337.6	342.1
80°	1730.6	1314.7	460.6	207.9	187.8	221.4	248.2	275.0	266.1	279.5	284.0
82.5°	731.1	574.6	210.2	102.9	87.2	93.9	100.6	89.4	82.7	82.7	71.5
85°	96.1	73.8	31.3	13.4	11.2	6.7	6.7	6.7	4.5	4.5	4.5
87.5°	8.9	8.9	6.7	6.7	4.5	4.5	2.2	4.5	2.2	2.2	2.2
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**

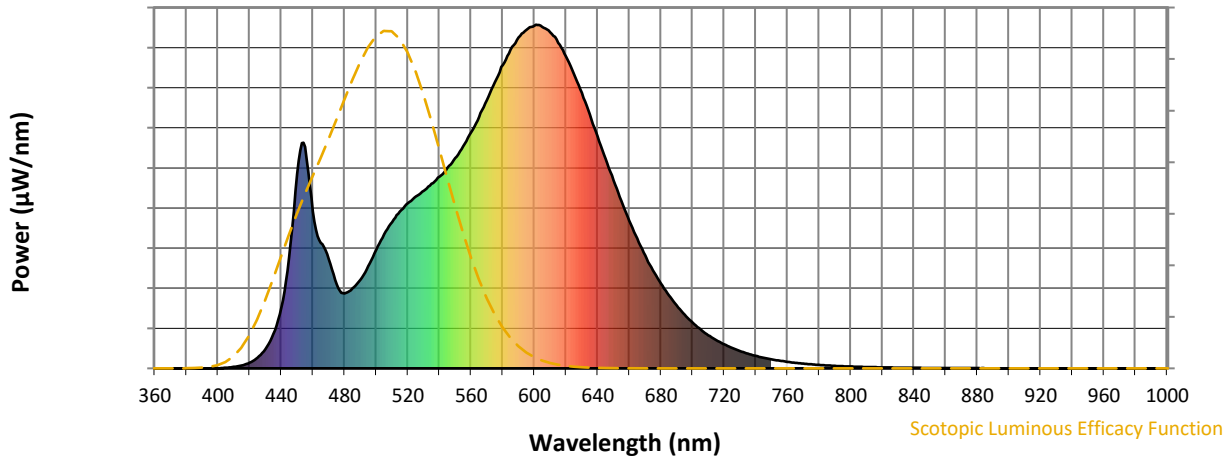


**Photopic Lumens: NR**

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**

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

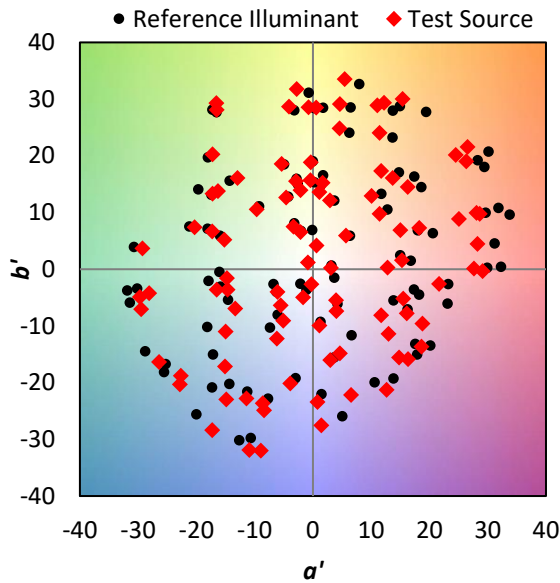
λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)
360	0	NR	490	258	NR	620	908	NR	750	26	NR	880	1	NR
365	0	NR	495	297	NR	625	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)