

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: P870640

Luminaire Tested: **EMM2-HTN-SA3A-830-U-T2R**

Issue Date: 09/05/2024



**Test Information**

Test Method: LM-79-08  
Report Number: P870640  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 09/05/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: EMM2-HTN-SA3A-830-U-T2R  
Description: EPIC MODERN TALL HOUSING DISCRETE LED ARRAYS 130W 80CRI 3000K  
FIXTURE w/ TYPE II ROADWAY DISTRIBUTION OPTIC  
Light Source: (30) 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

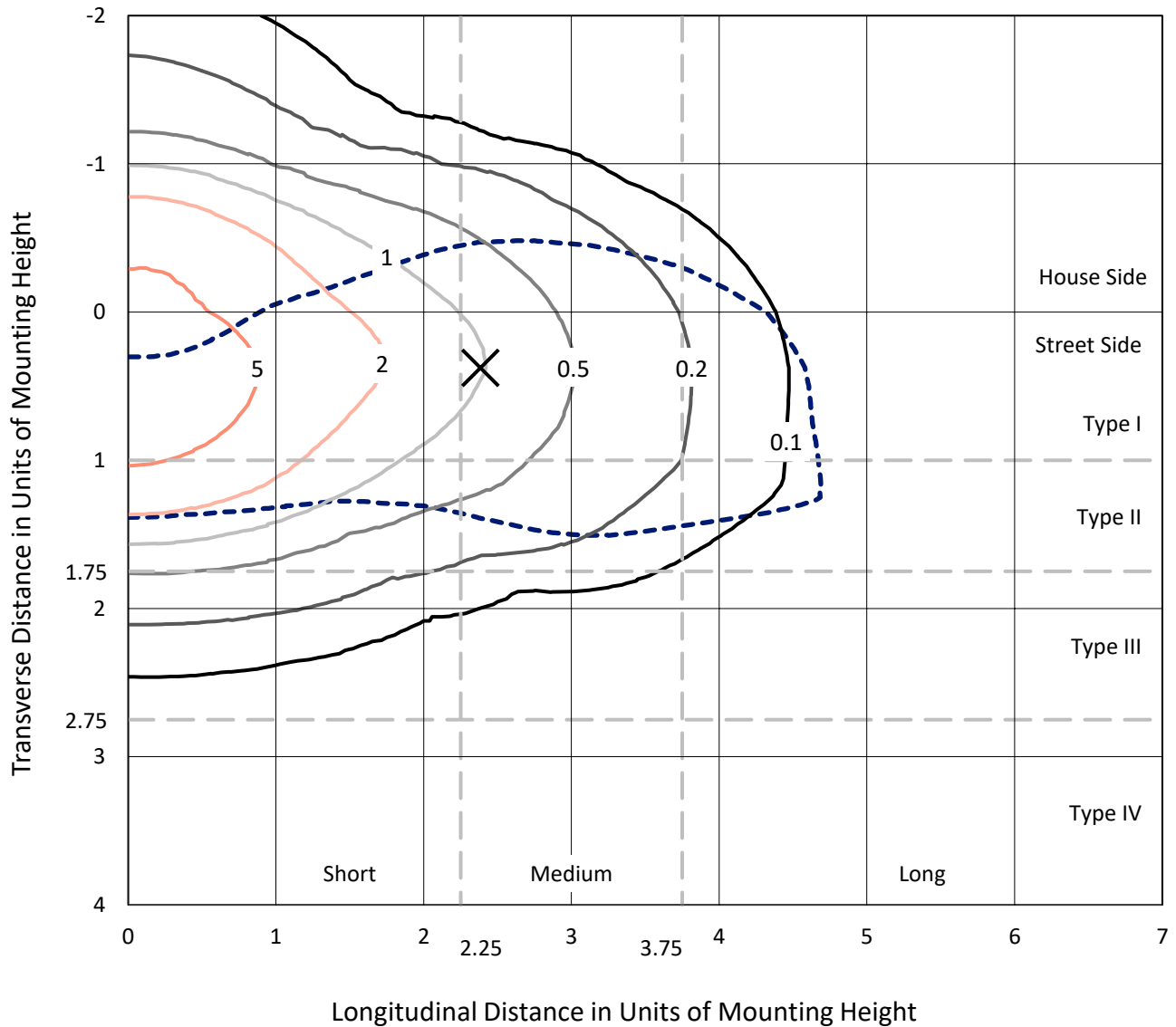
Lumens per Lamp: N/A  
Luminaire Lumens: 14823 lumens  
Efficiency: N/A  
Efficacy: 131.2 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 0.33' x H: 0')  
IES Classification: Type II - Medium  
BUG Rating: B3 - U0 - G3

Input Watts (W): 113  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: 0.99  
Total Harmonic Distortion (THDi): 7.77%  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT

REPORT NUMBER: P870640  
 CATALOG NUMBER: EMM2-HTN-SA3A-830-U-T2R

### Iso-Footcandle Lines of Horizontal Illumination

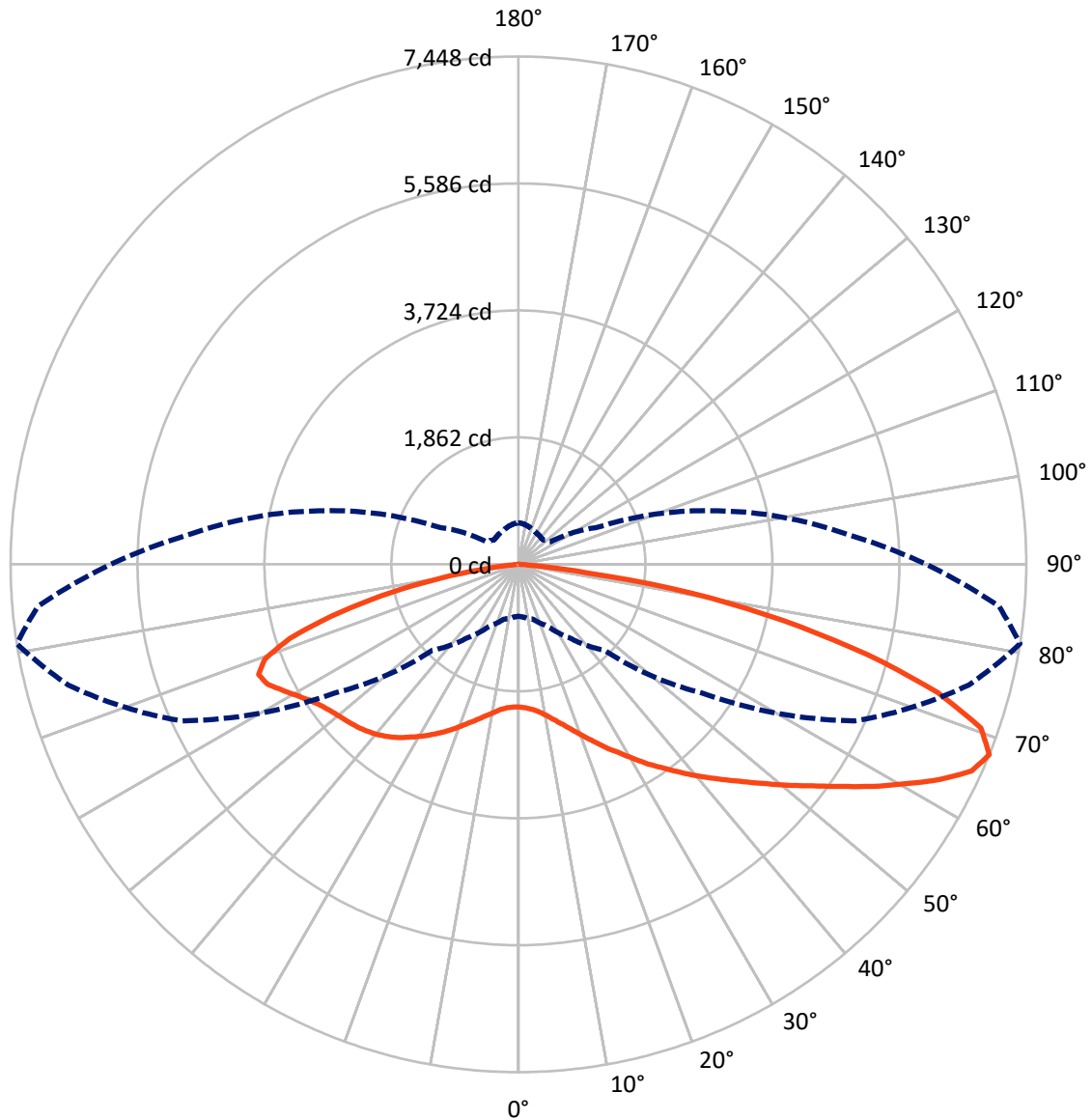
× Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 9.4 fc  
 Type II - Medium - N/A

REPORT NUMBER: P870640  
CATALOG NUMBER: EMM2-HTN-SA3A-830-U-T2R

### Luminous Intensity Polar Plot



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

REPORT NUMBER: P870640  
 CATALOG NUMBER: EMM2-HTN-SA3A-830-U-T2R

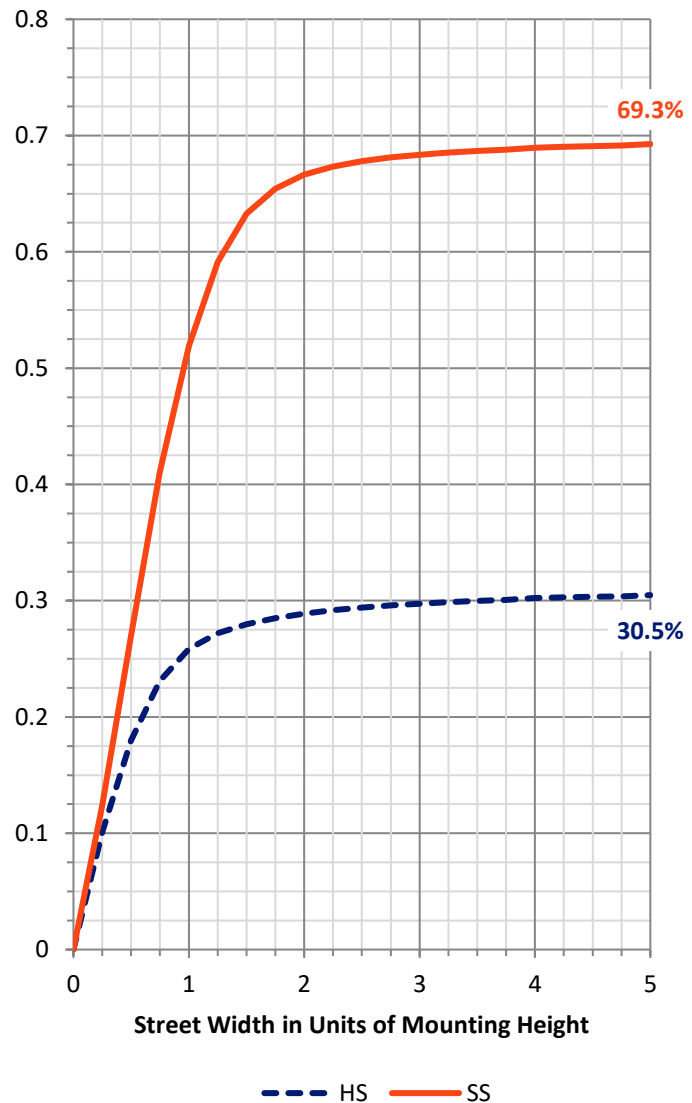
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	4542.1	0.0	4542.1
	% Fixture	30.6	0.0	30.6
<b>Street Side</b>	Lumens	10280.9	0.0	10280.9
	% Fixture	69.4	0.0	69.4
<b>Total</b>	Lumens	14823.0	0.0	14823.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	213.4	1.4
10°-20°	757.6	5.1
20°-30°	1508.8	10.2
30°-40°	2370.4	16.0
40°-50°	2939.7	19.8
50°-60°	2873.7	19.4
60°-70°	2416.6	16.3
70°-80°	1535.5	10.4
80°-90°	207.3	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°	14823.0	100.0
0°-180°	14823.0	100.0



REPORT NUMBER: P870640

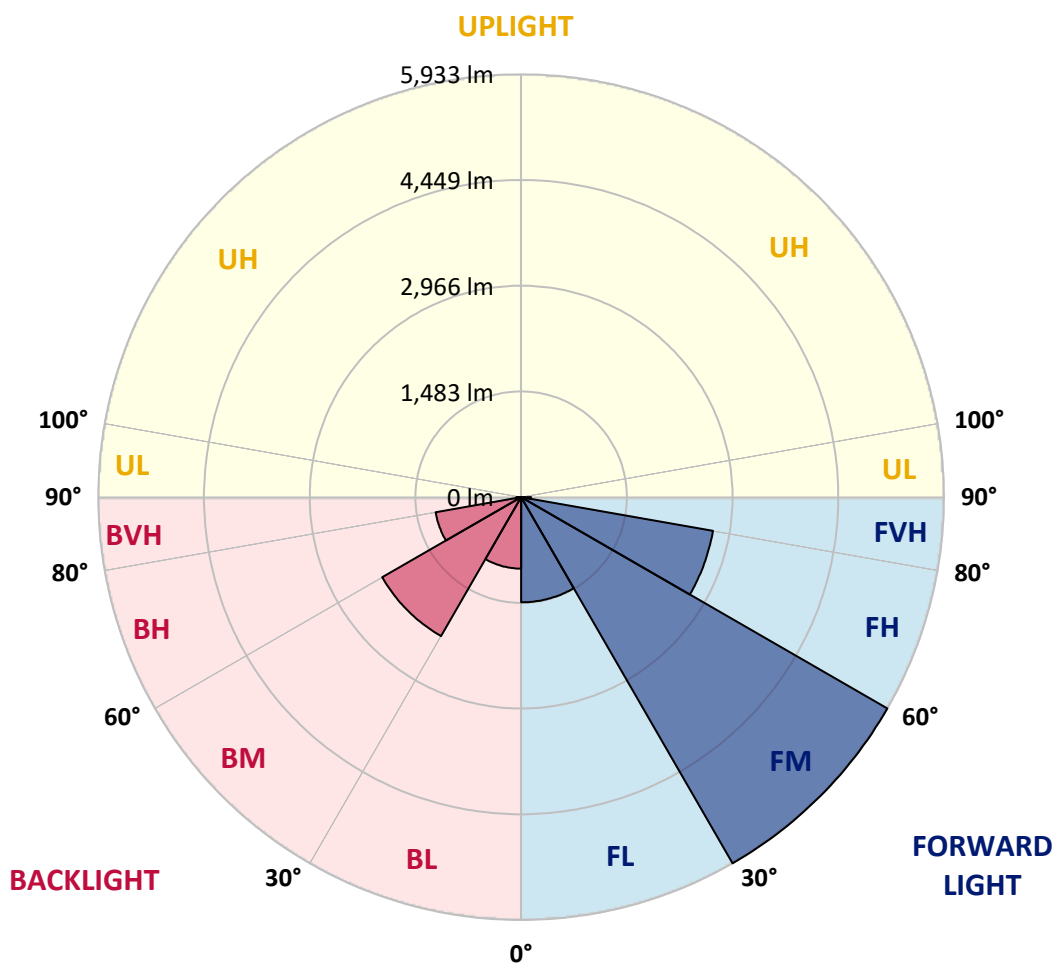
CATALOG NUMBER: EMM2-HTN-SA3A-830-U-T2R

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1476.5	10.0			
FM (30°-60°)	5932.6	40.0			
FH (60°-80°)	2732.9	18.4			G2/5000
FVH (80°-90°)	138.9	0.9			G2/225
BL (0°-30°)	1003.3	6.8	B3/2500		
BM (30°-60°)	2251.2	15.2	B2/2500		
BH (60°-80°)	1219.3	8.2	B3/2500		G3/2500
BVH (80°-90°)	68.4	0.5			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G3**

Type II Medium





REPORT NUMBER: P870640

CATALOG NUMBER: EMM2-HTN-SA3A-830-U-T2R

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	81°	85°
0°	2092.8	2092.8	2092.8	2092.8	2092.8	2092.8	2092.8	2092.8	2092.8	2092.8	2092.8
2.5°	2166.2	2163.3	2163.3	2139.8	2139.8	2133.9	2136.8	2119.2	2110.4	2107.4	2104.5
5°	2322.0	2322.0	2304.4	2289.7	2260.3	2233.8	2210.3	2175.0	2148.6	2136.8	2128.0
7.5°	2557.2	2539.5	2533.6	2489.6	2427.8	2374.9	2327.9	2251.5	2201.5	2183.9	2172.1
10°	2845.2	2821.7	2777.6	2727.6	2648.3	2568.9	2474.9	2372.0	2289.7	2254.4	2239.7
12.5°	3142.1	3109.7	3048.0	3001.0	2898.1	2777.6	2645.3	2504.2	2389.6	2339.6	2313.2
15°	3468.3	3450.7	3377.2	3283.1	3162.6	2992.2	2827.6	2654.1	2507.2	2436.6	2392.6
17.5°	3821.0	3794.6	3715.2	3600.6	3430.1	3227.3	3036.3	2812.9	2642.4	2551.3	2501.3
20°	4167.9	4162.0	4044.4	3935.7	3735.8	3483.0	3236.1	3001.0	2786.4	2680.6	2615.9
22.5°	4555.8	4517.6	4414.8	4261.9	4023.8	3791.6	3500.7	3195.0	2942.2	2818.7	2745.3
25°	4958.5	4955.6	4829.2	4641.1	4361.9	4067.9	3753.4	3415.4	3127.4	2977.5	2880.5
27.5°	5458.2	5420.0	5258.3	5043.8	4720.4	4382.4	4018.0	3644.7	3303.7	3124.4	3006.9
30°	5896.1	5884.4	5702.2	5461.1	5099.6	4696.9	4303.1	3903.3	3512.4	3300.8	3171.5
32.5°	6251.8	6237.1	6081.3	5840.3	5452.3	5034.9	4582.3	4147.3	3721.1	3491.8	3321.4
35°	6548.7	6525.1	6363.5	6122.5	5787.4	5364.1	4882.1	4403.0	3950.4	3671.1	3509.5
37.5°	6666.2	6645.7	6513.4	6313.5	6004.9	5616.9	5152.5	4685.2	4179.6	3873.9	3691.7
40°	6622.1	6610.4	6516.3	6378.2	6143.0	5819.7	5411.2	4979.1	4438.3	4088.5	3871.0
42.5°	6413.5	6413.5	6354.7	6284.1	6166.6	5934.4	5640.4	5261.3	4688.1	4303.1	4041.5
45°	6119.5	6107.8	6087.2	6060.7	6043.1	5954.9	5790.3	5505.2	4964.4	4538.2	4247.2
47.5°	5728.6	5737.4	5722.7	5734.5	5808.0	5863.8	5855.0	5731.6	5246.6	4796.9	4450.0
50°	5114.3	5155.5	5202.5	5340.6	5490.5	5646.3	5790.3	5893.2	5578.7	5090.8	4685.2
52.5°	4353.0	4370.7	4497.1	4823.3	5143.7	5349.4	5622.8	5966.7	5872.6	5396.5	4961.5
55°	3415.4	3447.7	3638.8	4100.3	4670.5	5064.3	5384.7	5934.4	6172.4	5746.2	5284.8
57.5°	2448.4	2469.0	2774.7	3250.8	3994.4	4655.8	5114.3	5805.0	6413.5	6143.0	5616.9
60°	1740.0	1778.3	1975.2	2439.6	3153.8	4091.4	4867.4	5616.9	6636.8	6531.0	6051.9
62.5°	1284.5	1305.0	1443.2	1781.2	2369.0	3321.4	4547.0	5478.8	6783.8	6948.4	6486.9
65°	967.0	975.8	1069.9	1302.1	1772.4	2448.4	4041.5	5452.3	6866.1	7304.1	6872.0
67.5°	761.3	776.0	834.7	993.5	1319.7	1781.2	3292.0	5434.7	6836.7	7448.1	7074.8
70°	640.8	643.7	687.8	776.0	987.6	1281.5	2460.2	5170.2	6672.1	7195.3	6886.7
72.5°	555.5	555.5	576.1	646.6	793.6	970.0	1675.4	4538.2	6254.7	6428.2	6234.2
75°	449.7	446.8	482.0	549.6	637.8	746.6	1125.7	3436.0	5378.8	5290.7	5131.9
77.5°	390.9	388.0	417.4	476.2	526.1	596.7	770.1	2230.9	4232.5	3968.0	3868.1
80°	335.1	326.3	349.8	405.6	432.1	464.4	532.0	1299.2	2765.8	2601.2	2480.7
82.5°	252.8	232.2	226.3	273.4	291.0	270.4	270.4	455.6	1005.2	1014.0	937.6
85°	20.6	23.5	29.4	35.3	50.0	55.8	58.8	97.0	149.9	144.0	147.0
87.5°	2.9	2.9	2.9	5.9	5.9	8.8	8.8	8.8	11.8	11.8	11.8
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: P870640  
 CATALOG NUMBER: EMM2-HTN-SA3A-830-U-T2R

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2092.8	2092.8	2092.8	2092.8	2092.8	2092.8	2092.8	2092.8	2092.8	2092.8	2092.8
2.5°	2101.6	2095.7	2089.8	2089.8	2089.8	2083.9	2081.0	2081.0	2078.1	2069.2	2066.3
5°	2122.1	2113.3	2104.5	2104.5	2104.5	2101.6	2098.6	2101.6	2098.6	2089.8	2086.9
7.5°	2163.3	2151.5	2139.8	2139.8	2145.7	2142.7	2142.7	2145.7	2142.7	2133.9	2131.0
10°	2222.1	2204.4	2198.6	2198.6	2204.4	2201.5	2198.6	2198.6	2195.6	2180.9	2186.8
12.5°	2286.7	2269.1	2263.2	2266.2	2263.2	2257.3	2260.3	2251.5	2248.5	2225.0	2222.1
15°	2369.0	2348.5	2336.7	2339.6	2330.8	2319.1	2307.3	2301.4	2289.7	2269.1	2263.2
17.5°	2463.1	2430.8	2416.1	2416.1	2398.4	2374.9	2357.3	2339.6	2322.0	2298.5	2292.6
20°	2554.2	2524.8	2501.3	2495.4	2460.2	2421.9	2389.6	2360.2	2339.6	2313.2	2307.3
22.5°	2668.8	2627.7	2595.4	2568.9	2516.0	2454.3	2404.3	2363.2	2333.8	2304.4	2295.6
25°	2789.4	2730.6	2677.7	2627.7	2554.2	2466.0	2395.5	2336.7	2298.5	2266.2	2260.3
27.5°	2909.9	2833.4	2757.0	2677.7	2566.0	2451.3	2351.4	2280.9	2230.9	2189.7	2183.9
30°	3039.2	2945.1	2824.6	2710.0	2563.0	2413.1	2286.7	2186.8	2128.0	2081.0	2075.1
32.5°	3171.5	3053.9	2889.3	2733.5	2548.3	2357.3	2192.7	2086.9	2013.4	1960.5	1945.8
35°	3318.4	3174.4	2948.1	2742.3	2507.2	2275.0	2092.8	1960.5	1875.2	1822.3	1810.6
37.5°	3468.3	3286.1	2986.3	2736.4	2448.4	2178.0	1963.4	1828.2	1728.3	1654.8	1643.0
40°	3621.2	3389.0	3009.8	2707.1	2366.1	2057.5	1842.9	1678.3	1534.3	1466.7	1434.4
42.5°	3762.2	3483.0	3021.6	2665.9	2275.0	1931.1	1684.2	1469.6	1334.4	1260.9	1275.6
45°	3909.2	3571.2	3024.5	2615.9	2154.5	1769.4	1484.3	1284.5	1149.2	1093.4	1087.5
47.5°	4035.6	3644.7	3018.6	2545.4	2019.3	1584.3	1275.6	1084.6	984.7	931.7	925.9
50°	4203.1	3727.0	3009.8	2463.1	1842.9	1372.6	1081.6	925.9	834.7	793.6	790.7
52.5°	4370.7	3818.1	3003.9	2348.5	1657.7	1172.8	905.3	781.8	720.1	699.5	693.7
55°	4591.1	3929.8	3006.9	2216.2	1446.1	967.0	767.1	681.9	649.6	640.8	640.8
57.5°	4843.9	4073.8	3024.5	2069.2	1225.7	799.5	667.2	629.0	626.1	631.9	634.9
60°	5149.6	4264.9	3059.8	1916.4	1022.9	676.0	608.4	605.5	614.3	634.9	640.8
62.5°	5493.5	4473.5	3103.9	1716.5	828.9	593.7	576.1	587.9	599.6	623.1	626.1
65°	5796.2	4708.7	3130.3	1525.5	693.7	546.7	555.5	561.4	590.8	623.1	623.1
67.5°	5978.4	4879.2	3030.4	1284.5	579.0	505.6	523.2	540.8	573.2	602.5	608.4
70°	5916.7	4823.3	2689.4	996.4	490.9	467.3	487.9	514.4	546.7	582.0	599.6
72.5°	5487.6	4426.5	2183.9	726.0	426.2	432.1	458.5	493.8	523.2	561.4	584.9
75°	4588.2	3694.6	1575.4	523.2	373.3	396.8	437.9	467.3	487.9	496.7	499.7
77.5°	3483.0	2715.9	1072.8	390.9	323.3	355.7	399.7	432.1	437.9	443.8	449.7
80°	2275.0	1728.3	605.5	273.4	246.9	291.0	326.3	361.5	349.8	367.4	373.3
82.5°	961.1	755.4	276.3	135.2	114.6	123.4	132.3	117.6	108.8	108.8	94.1
85°	126.4	97.0	41.1	17.6	14.7	8.8	8.8	8.8	5.9	5.9	5.9
87.5°	11.8	11.8	8.8	8.8	5.9	5.9	2.9	5.9	2.9	2.9	2.9
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: SP1-2407-157-7

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

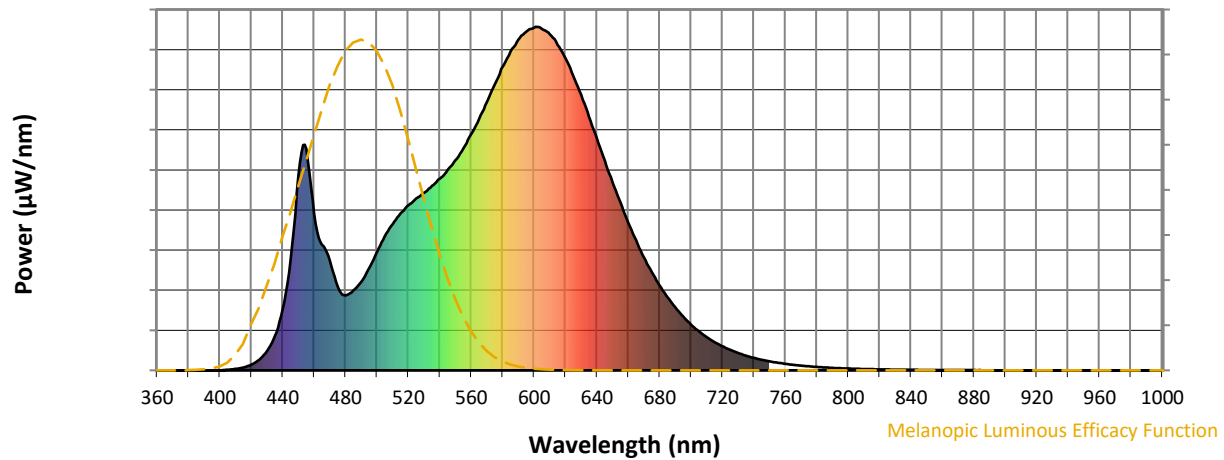


Scotopic Lumens: NR S/P: 1.42

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)