

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: P868384

Luminaire Tested: **EMM2-HTN-SA2A-727-U-T2R**

Issue Date: 08/22/2024



**Test Information**

Test Method: LM-79-08  
Report Number: P868384  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 08/22/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: EMM2-HTN-SA2A-727-U-T2R  
Description: EPIC MODERN TALL HOUSING DISCRETE LED ARRAYS 70W 70CRI 2700K  
FIXTURE w/ TYPE II ROADWAY DISTRIBUTION OPTIC  
Light Source: (20) 2700K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

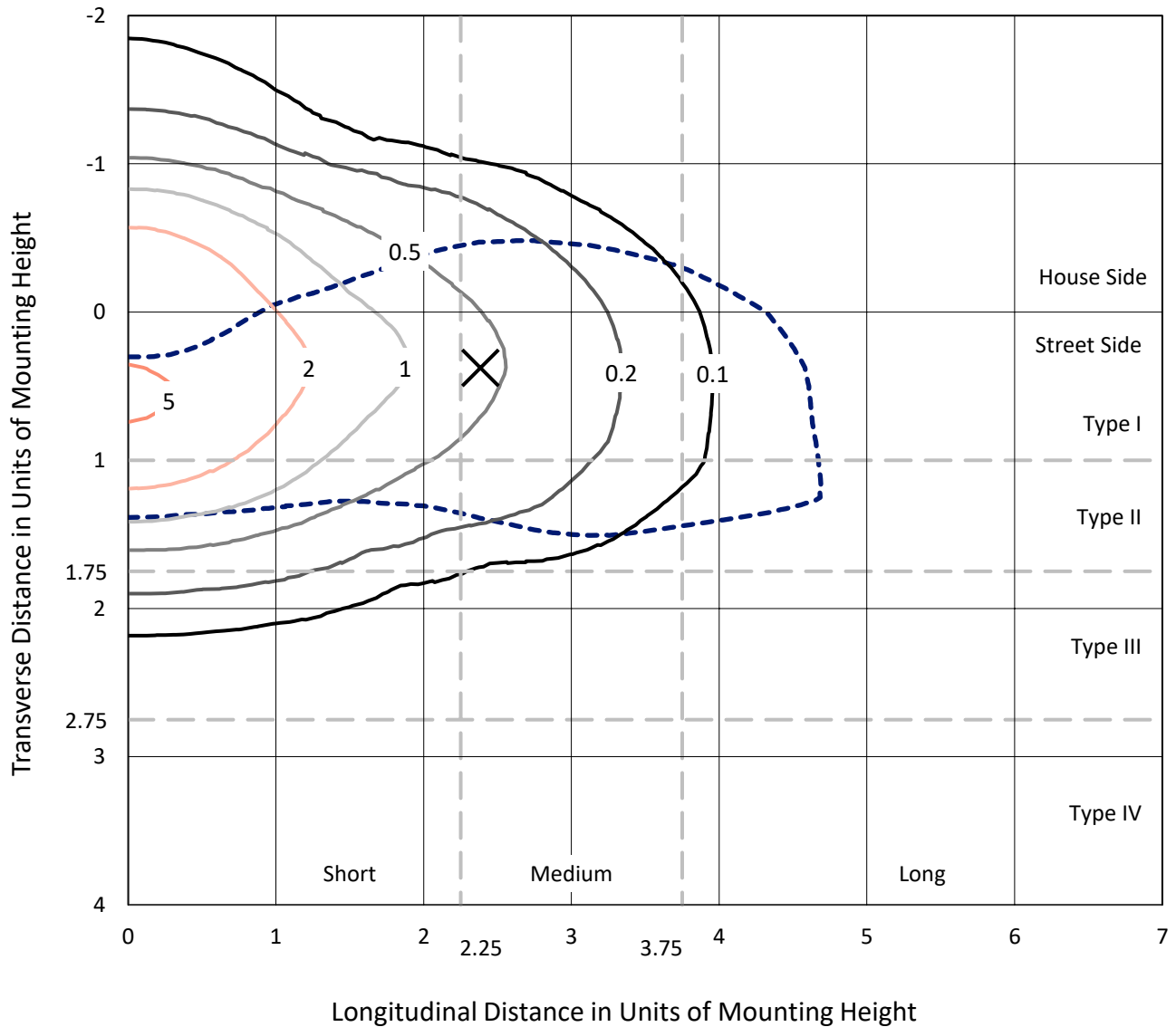
Lumens per Lamp: N/A  
Luminaire Lumens: 8670.3 lumens  
Efficiency: N/A  
Efficacy: 142.1 lumens/watt  
Luminous Opening: Rectangular (W 0.67' x L: 0.33' x H: 0')  
IES Classification: Type II - Medium  
BUG Rating: B2 - U0 - G2

Input Watts (W): 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

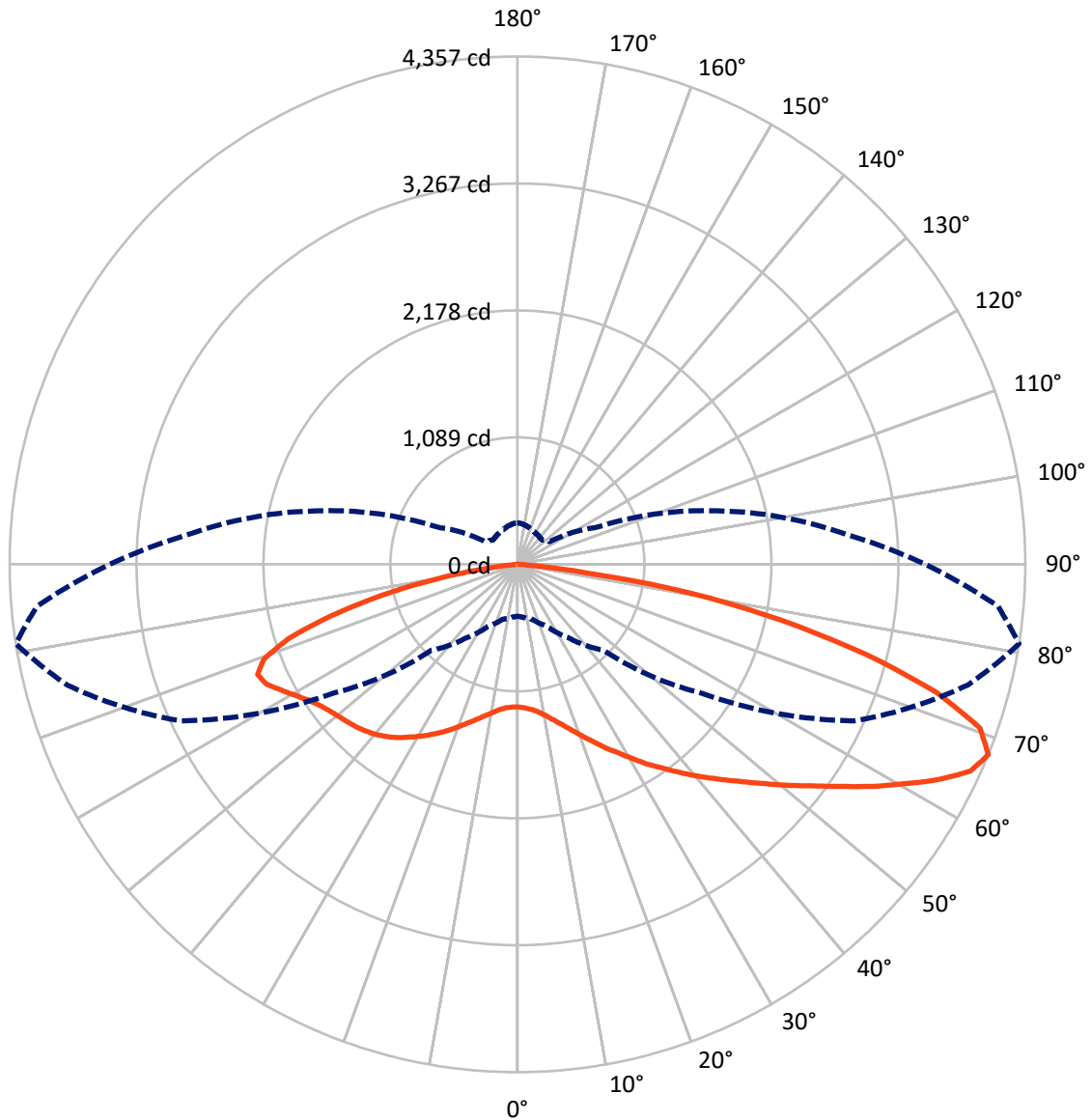
× Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 5.5 fc  
 Type II - Medium - N/A

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### Luminous Intensity Polar Plot



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

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2656.8	0.0	2656.8
	% Fixture	30.6	0.0	30.6
<b>Street Side</b>	Lumens	6013.5	0.0	6013.5
	% Fixture	69.4	0.0	69.4
<b>Total</b>	Lumens	8670.3	0.0	8670.3
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	124.8	1.4
10°-20°	443.1	5.1
20°-30°	882.5	10.2
30°-40°	1386.5	16.0
40°-50°	1719.5	19.8
50°-60°	1680.9	19.4
60°-70°	1413.5	16.3
70°-80°	898.2	10.4
80°-90°	121.2	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°	8670.3	100.0
0°-180°	8670.3	100.0

**Coefficient of Utilization**



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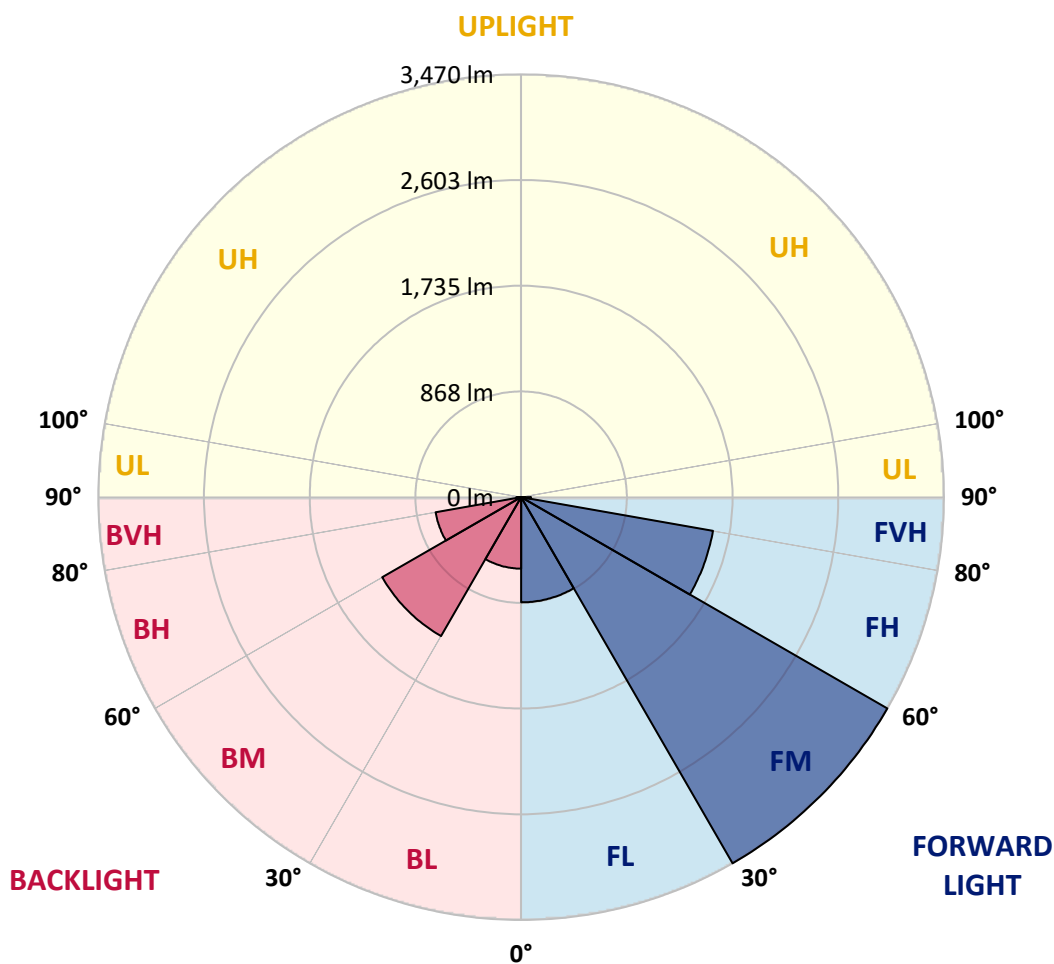
CATALOG NUMBER: EMM2-HTN-SA2A-727-U-T2R

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	863.6	10.0			
FM (30°-60°)	3470.1	40.0			
FH (60°-80°)	1598.5	18.4			G1/1800
FVH (80°-90°)	81.2	0.9			G1/100
BL (0°-30°)	586.8	6.8	B2/1000		
BM (30°-60°)	1316.8	15.2	B2/2500		
BH (60°-80°)	713.2	8.2	B2/1000		G2/1000
BVH (80°-90°)	40.0	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





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	81°	85°
0°	1224.1	1224.1	1224.1	1224.1	1224.1	1224.1	1224.1	1224.1	1224.1	1224.1	1224.1
2.5°	1267.1	1265.4	1265.4	1251.6	1251.6	1248.2	1249.9	1239.6	1234.4	1232.7	1231.0
5°	1358.2	1358.2	1347.9	1339.3	1322.1	1306.6	1292.9	1272.2	1256.8	1249.9	1244.7
7.5°	1495.7	1485.4	1482.0	1456.2	1420.1	1389.1	1361.6	1316.9	1287.7	1277.4	1270.5
10°	1664.2	1650.5	1624.7	1595.4	1549.0	1502.6	1447.6	1387.4	1339.3	1318.6	1310.1
12.5°	1837.9	1818.9	1782.8	1755.3	1695.2	1624.7	1547.3	1464.8	1397.7	1368.5	1353.0
15°	2028.7	2018.4	1975.4	1920.4	1849.9	1750.2	1653.9	1552.5	1466.5	1425.2	1399.5
17.5°	2235.0	2219.5	2173.1	2106.1	2006.3	1887.7	1776.0	1645.3	1545.6	1492.3	1463.1
20°	2437.9	2434.4	2365.7	2302.0	2185.1	2037.3	1892.9	1755.3	1629.8	1567.9	1530.1
22.5°	2664.8	2642.5	2582.3	2492.9	2353.6	2217.8	2047.6	1868.8	1720.9	1648.7	1605.8
25°	2900.3	2898.6	2824.7	2714.7	2551.3	2379.4	2195.5	1997.7	1829.3	1741.6	1684.8
27.5°	3192.6	3170.3	3075.7	2950.2	2761.1	2563.4	2350.2	2131.8	1932.4	1827.5	1758.8
30°	3448.8	3441.9	3335.3	3194.3	2982.9	2747.3	2516.9	2283.1	2054.5	1930.7	1855.0
32.5°	3656.8	3648.2	3557.1	3416.1	3189.2	2945.0	2680.3	2425.8	2176.5	2042.4	1942.7
35°	3830.4	3816.7	3722.1	3581.2	3385.2	3137.6	2855.6	2575.4	2310.6	2147.3	2052.8
37.5°	3899.2	3887.2	3809.8	3692.9	3512.4	3285.4	3013.8	2740.4	2444.7	2265.9	2159.4
40°	3873.4	3866.5	3811.5	3730.7	3593.2	3404.1	3165.1	2912.4	2596.0	2391.4	2264.2
42.5°	3751.4	3751.4	3717.0	3675.7	3606.9	3471.1	3299.2	3077.4	2742.2	2516.9	2363.9
45°	3579.4	3572.6	3560.5	3545.0	3534.7	3483.2	3386.9	3220.1	2903.8	2654.5	2484.3
47.5°	3350.8	3355.9	3347.3	3354.2	3397.2	3429.9	3424.7	3352.5	3068.8	2805.8	2602.9
50°	2991.5	3015.5	3043.0	3123.8	3211.5	3302.6	3386.9	3447.1	3263.1	2977.7	2740.4
52.5°	2546.2	2556.5	2630.4	2821.3	3008.6	3129.0	3288.9	3490.0	3435.0	3156.5	2902.1
55°	1997.7	2016.7	2128.4	2398.3	2731.9	2962.2	3149.6	3471.1	3610.4	3361.1	3091.2
57.5°	1432.1	1444.2	1623.0	1901.5	2336.4	2723.3	2991.5	3395.5	3751.4	3593.2	3285.4
60°	1017.8	1040.1	1155.3	1427.0	1844.7	2393.2	2847.0	3285.4	3882.0	3820.1	3539.9
62.5°	751.3	763.3	844.1	1041.9	1385.7	1942.7	2659.6	3204.6	3968.0	4064.3	3794.3
65°	565.6	570.8	625.8	761.6	1036.7	1432.1	2363.9	3189.2	4016.1	4272.3	4019.6
67.5°	445.3	453.9	488.3	581.1	771.9	1041.9	1925.5	3178.9	3998.9	4356.5	4138.2
70°	374.8	376.5	402.3	453.9	577.7	749.6	1439.0	3024.1	3902.6	4208.7	4028.2
72.5°	324.9	324.9	337.0	378.2	464.2	567.3	980.0	2654.5	3658.5	3760.0	3646.5
75°	263.0	261.3	282.0	321.5	373.1	436.7	658.5	2009.8	3146.2	3094.6	3001.8
77.5°	228.7	226.9	244.1	278.5	307.7	349.0	450.4	1304.9	2475.7	2321.0	2262.5
80°	196.0	190.8	204.6	237.3	252.7	271.6	311.2	759.9	1617.8	1521.5	1451.0
82.5°	147.9	135.8	132.4	159.9	170.2	158.2	158.2	266.5	588.0	593.1	548.4
85°	12.0	13.8	17.2	20.6	29.2	32.7	34.4	56.7	87.7	84.2	86.0
87.5°	1.7	1.7	1.7	3.4	3.4	5.2	5.2	5.2	6.9	6.9	6.9
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°	1224.1	1224.1	1224.1	1224.1	1224.1	1224.1	1224.1	1224.1	1224.1	1224.1	1224.1
2.5°	1229.2	1225.8	1222.4	1222.4	1222.4	1218.9	1217.2	1217.2	1215.5	1210.3	1208.6
5°	1241.3	1236.1	1231.0	1231.0	1231.0	1229.2	1227.5	1229.2	1227.5	1222.4	1220.7
7.5°	1265.4	1258.5	1251.6	1251.6	1255.0	1253.3	1253.3	1255.0	1253.3	1248.2	1246.4
10°	1299.7	1289.4	1286.0	1286.0	1289.4	1287.7	1286.0	1286.0	1284.3	1275.7	1279.1
12.5°	1337.6	1327.2	1323.8	1325.5	1323.8	1320.4	1322.1	1316.9	1315.2	1301.5	1299.7
15°	1385.7	1373.7	1366.8	1368.5	1363.3	1356.5	1349.6	1346.2	1339.3	1327.2	1323.8
17.5°	1440.7	1421.8	1413.2	1413.2	1402.9	1389.1	1378.8	1368.5	1358.2	1344.4	1341.0
20°	1494.0	1476.8	1463.1	1459.6	1439.0	1416.6	1397.7	1380.5	1368.5	1353.0	1349.6
22.5°	1561.1	1537.0	1518.1	1502.6	1471.7	1435.6	1406.3	1382.3	1365.1	1347.9	1342.7
25°	1631.5	1597.2	1566.2	1537.0	1494.0	1442.4	1401.2	1366.8	1344.4	1325.5	1322.1
27.5°	1702.0	1657.3	1612.6	1566.2	1500.9	1433.8	1375.4	1334.1	1304.9	1280.8	1277.4
30°	1777.7	1722.7	1652.2	1585.1	1499.2	1411.5	1337.6	1279.1	1244.7	1217.2	1213.8
32.5°	1855.0	1786.3	1690.0	1598.9	1490.6	1378.8	1282.5	1220.7	1177.7	1146.7	1138.1
35°	1941.0	1856.8	1724.4	1604.0	1466.5	1330.7	1224.1	1146.7	1096.9	1065.9	1059.0
37.5°	2028.7	1922.1	1746.7	1600.6	1432.1	1273.9	1148.4	1069.4	1010.9	967.9	961.0
40°	2118.1	1982.3	1760.5	1583.4	1384.0	1203.5	1078.0	981.7	897.4	857.9	839.0
42.5°	2200.6	2037.3	1767.4	1559.3	1330.7	1129.5	985.1	859.6	780.5	737.5	746.1
45°	2286.6	2088.9	1769.1	1530.1	1260.2	1035.0	868.2	751.3	672.2	639.6	636.1
47.5°	2360.5	2131.8	1765.6	1488.9	1181.1	926.7	746.1	634.4	575.9	545.0	541.6
50°	2458.5	2180.0	1760.5	1440.7	1078.0	802.9	632.7	541.6	488.3	464.2	462.5
52.5°	2556.5	2233.3	1757.1	1373.7	969.6	686.0	529.5	457.3	421.2	409.2	405.7
55°	2685.4	2298.6	1758.8	1296.3	845.9	565.6	448.7	398.9	379.9	374.8	374.8
57.5°	2833.3	2382.8	1769.1	1210.3	716.9	467.6	390.3	367.9	366.2	369.6	371.4
60°	3012.1	2494.6	1789.7	1120.9	598.3	395.4	355.9	354.2	359.3	371.4	374.8
62.5°	3213.2	2616.7	1815.5	1004.0	484.8	347.3	337.0	343.8	350.7	364.5	366.2
65°	3390.3	2754.2	1831.0	892.3	405.7	319.8	324.9	328.4	345.6	364.5	364.5
67.5°	3496.9	2853.9	1772.5	751.3	338.7	295.7	306.0	316.3	335.2	352.4	355.9
70°	3460.8	2821.3	1573.1	582.8	287.1	273.4	285.4	300.9	319.8	340.4	350.7
72.5°	3209.8	2589.2	1277.4	424.6	249.3	252.7	268.2	288.8	306.0	328.4	342.1
75°	2683.7	2161.1	921.5	306.0	218.3	232.1	256.2	273.4	285.4	290.5	292.3
77.5°	2037.3	1588.6	627.5	228.7	189.1	208.0	233.8	252.7	256.2	259.6	263.0
80°	1330.7	1010.9	354.2	159.9	144.4	170.2	190.8	211.5	204.6	214.9	218.3
82.5°	562.2	441.8	161.6	79.1	67.0	72.2	77.4	68.8	63.6	63.6	55.0
85°	73.9	56.7	24.1	10.3	8.6	5.2	5.2	5.2	3.4	3.4	3.4
87.5°	6.9	6.9	5.2	5.2	3.4	3.4	1.7	3.4	1.7	1.7	1.7
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: SP1-2407-157-3

Test Date: 08/07/2024

Luminaire Tested: MEM2-HTN-SA-40-727-U-5WQ-2

Data in this report applies to families of products including MEM2-HTN-SA-40-727-U-5WQ-2

**Test Information**

Test Method: LM-79-2019  
 Report Number: SP1-2407-157-3  
 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-40-727-U-5WQ-2**  
 Description: Epic Modern Light Square 40W 5WQ Optic and Flare Trim

**Spectral Parameters**

CCT (K): 2747  
 CIE u': 0.2606  
 CIE v': 0.5257  
 Duv: -0.0005  
 CIE x: 0.4552  
 CIE y: 0.4082  
 CIE z: 0.1366  
 Peak Wavelength (nm): 597  
 Dominant Wavelength (nm): 584  
 Purity: 59.16856  
 Rf: 75.5  
 Rg: 93.6

CRI (Ra):	71.7		
R1:	68.1	R9:	-35.3
R2:	83.9	R10:	64.2
R3:	94.7	R11:	61.7
R4:	66.3	R12:	53.9
R5:	67.4	R13:	71.2
R6:	78.7	R14:	97.6
R7:	75.0	R15:	59.3
R8:	39.4		



**Test Conditions**

Stabilization Time: 22M  
 Operation Time: 1H 22M  
 Sphere Temperature (°C): 24.2

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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



Point lies inside the ANSI 2700K 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	103	NR	620	846	NR	750	20	NR	880	0	NR
365	0	NR	495	130	NR	625	784	NR	755	17	NR	885	1	NR
370	0	NR	500	171	NR	630	720	NR	760	15	NR	890	0	NR
375	0	NR	505	221	NR	635	652	NR	765	13	NR	895	0	NR
380	0	NR	510	268	NR	640	587	NR	770	11	NR	900	0	NR
385	0	NR	515	313	NR	645	521	NR	775	9	NR	905	0	NR
390	0	NR	520	350	NR	650	461	NR	780	8	NR	910	0	NR
395	0	NR	525	381	NR	655	406	NR	785	7	NR	915	0	NR
400	0	NR	530	407	NR	660	353	NR	790	6	NR	920	0	NR
405	2	NR	535	435	NR	665	307	NR	795	5	NR	925	0	NR
410	4	NR	540	462	NR	670	264	NR	800	4	NR	930	0	NR
415	9	NR	545	496	NR	675	227	NR	805	4	NR	935	0	NR
420	20	NR	550	534	NR	680	196	NR	810	3	NR	940	0	NR
425	38	NR	555	582	NR	685	167	NR	815	3	NR	945	0	NR
430	69	NR	560	638	NR	690	144	NR	820	2	NR	950	0	NR
435	120	NR	565	700	NR	695	122	NR	825	2	NR	955	0	NR
440	193	NR	570	767	NR	700	103	NR	830	2	NR	960	0	NR
445	316	NR	575	836	NR	705	88	NR	835	2	NR	965	0	NR
450	469	NR	580	898	NR	710	74	NR	840	1	NR	970	0	NR
455	431	NR	585	947	NR	715	63	NR	845	1	NR	975	0	NR
460	264	NR	590	982	NR	720	54	NR	850	1	NR	980	0	NR
465	197	NR	595	997	NR	725	46	NR	855	1	NR	985	0	NR
470	155	NR	600	997	NR	730	39	NR	860	1	NR	990	0	NR
475	108	NR	605	978	NR	735	33	NR	865	1	NR	995	0	NR
480	90	NR	610	947	NR	740	28	NR	870	1	NR	1000	0	NR
485	92	NR	615	900	NR	745	24	NR	875	1	NR			

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**Scotopic Flux vs. Wavelength**



**Scotopic Lumens: NR**

**S/P: 1.13**

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	103	NR	620	846	NR	750	20	NR	880	0	NR
365	0	NR	495	130	NR	625	784	NR	755	17	NR	885	1	NR
370	0	NR	500	171	NR	630	720	NR	760	15	NR	890	0	NR
375	0	NR	505	221	NR	635	652	NR	765	13	NR	895	0	NR
380	0	NR	510	268	NR	640	587	NR	770	11	NR	900	0	NR
385	0	NR	515	313	NR	645	521	NR	775	9	NR	905	0	NR
390	0	NR	520	350	NR	650	461	NR	780	8	NR	910	0	NR
395	0	NR	525	381	NR	655	406	NR	785	7	NR	915	0	NR
400	0	NR	530	407	NR	660	353	NR	790	6	NR	920	0	NR
405	2	NR	535	435	NR	665	307	NR	795	5	NR	925	0	NR
410	4	NR	540	462	NR	670	264	NR	800	4	NR	930	0	NR
415	9	NR	545	496	NR	675	227	NR	805	4	NR	935	0	NR
420	20	NR	550	534	NR	680	196	NR	810	3	NR	940	0	NR
425	38	NR	555	582	NR	685	167	NR	815	3	NR	945	0	NR
430	69	NR	560	638	NR	690	144	NR	820	2	NR	950	0	NR
435	120	NR	565	700	NR	695	122	NR	825	2	NR	955	0	NR
440	193	NR	570	767	NR	700	103	NR	830	2	NR	960	0	NR
445	316	NR	575	836	NR	705	88	NR	835	2	NR	965	0	NR
450	469	NR	580	898	NR	710	74	NR	840	1	NR	970	0	NR
455	431	NR	585	947	NR	715	63	NR	845	1	NR	975	0	NR
460	264	NR	590	982	NR	720	54	NR	850	1	NR	980	0	NR
465	197	NR	595	997	NR	725	46	NR	855	1	NR	985	0	NR
470	155	NR	600	997	NR	730	39	NR	860	1	NR	990	0	NR
475	108	NR	605	978	NR	735	33	NR	865	1	NR	995	0	NR
480	90	NR	610	947	NR	740	28	NR	870	1	NR	1000	0	NR
485	92	NR	615	900	NR	745	24	NR	875	1	NR			

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Melanopic Flux vs. Wavelength



Melanopic Lumens: NR M/P: 2.04

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	103	NR	620	846	NR	750	20	NR	880	0	NR
365	0	NR	495	130	NR	625	784	NR	755	17	NR	885	1	NR
370	0	NR	500	171	NR	630	720	NR	760	15	NR	890	0	NR
375	0	NR	505	221	NR	635	652	NR	765	13	NR	895	0	NR
380	0	NR	510	268	NR	640	587	NR	770	11	NR	900	0	NR
385	0	NR	515	313	NR	645	521	NR	775	9	NR	905	0	NR
390	0	NR	520	350	NR	650	461	NR	780	8	NR	910	0	NR
395	0	NR	525	381	NR	655	406	NR	785	7	NR	915	0	NR
400	0	NR	530	407	NR	660	353	NR	790	6	NR	920	0	NR
405	2	NR	535	435	NR	665	307	NR	795	5	NR	925	0	NR
410	4	NR	540	462	NR	670	264	NR	800	4	NR	930	0	NR
415	9	NR	545	496	NR	675	227	NR	805	4	NR	935	0	NR
420	20	NR	550	534	NR	680	196	NR	810	3	NR	940	0	NR
425	38	NR	555	582	NR	685	167	NR	815	3	NR	945	0	NR
430	69	NR	560	638	NR	690	144	NR	820	2	NR	950	0	NR
435	120	NR	565	700	NR	695	122	NR	825	2	NR	955	0	NR
440	193	NR	570	767	NR	700	103	NR	830	2	NR	960	0	NR
445	316	NR	575	836	NR	705	88	NR	835	2	NR	965	0	NR
450	469	NR	580	898	NR	710	74	NR	840	1	NR	970	0	NR
455	431	NR	585	947	NR	715	63	NR	845	1	NR	975	0	NR
460	264	NR	590	982	NR	720	54	NR	850	1	NR	980	0	NR
465	197	NR	595	997	NR	725	46	NR	855	1	NR	985	0	NR
470	155	NR	600	997	NR	730	39	NR	860	1	NR	990	0	NR
475	108	NR	605	978	NR	735	33	NR	865	1	NR	995	0	NR
480	90	NR	610	947	NR	740	28	NR	870	1	NR	1000	0	NR
485	92	NR	615	900	NR	745	24	NR	875	1	NR			

**Summary**

$R_f = 75.5$   
 $R_g = 93.6$   
 $CIE R_a = 71.7$   
 $R_g = -35.3$



**Color Vector Graphics**





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

CES01 = 86	CES26 = 68	CES51 = 87	CES76 = 63
CES02 = 63	CES27 = 90	CES52 = 85	CES77 = 79
CES03 = 31	CES28 = 87	CES53 = 78	CES78 = 66
CES04 = 71	CES29 = 71	CES54 = 86	CES79 = 87
CES05 = 50	CES30 = 85	CES55 = 84	CES80 = 85
CES06 = 52	CES31 = 74	CES56 = 75	CES81 = 67
CES07 = 42	CES32 = 66	CES57 = 75	CES82 = 93
CES08 = 41	CES33 = 80	CES58 = 76	CES83 = 91
CES09 = 29	CES34 = 79	CES59 = 85	CES84 = 89
CES10 = 77	CES35 = 89	CES60 = 90	CES85 = 72
CES11 = 60	CES36 = 93	CES61 = 81	CES86 = 59
CES12 = 66	CES37 = 88	CES62 = 91	CES87 = 77
CES13 = 43	CES38 = 93	CES63 = 77	CES88 = 79
CES14 = 74	CES39 = 97	CES64 = 67	CES89 = 65
CES15 = 72	CES40 = 93	CES65 = 66	CES90 = 80
CES16 = 48	CES41 = 93	CES66 = 63	CES91 = 80
CES17 = 51	CES42 = 89	CES67 = 61	CES92 = 55
CES18 = 57	CES43 = 78	CES68 = 68	CES93 = 72
CES19 = 73	CES44 = 99	CES69 = 78	CES94 = 48
CES20 = 67	CES45 = 85	CES70 = 63	CES95 = 66
CES21 = 88	CES46 = 81	CES71 = 61	CES96 = 76
CES22 = 80	CES47 = 86	CES72 = 86	CES97 = 81
CES23 = 92	CES48 = 74	CES73 = 56	CES98 = 76
CES24 = 91	CES49 = 79	CES74 = 93	CES99 = 64
CES25 = 73	CES50 = 86	CES75 = 66	



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)