

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: P868980

Luminaire Tested: **EMM2-HSN-SA2B-727-U-T3-HSS**

Issue Date: 08/22/2024



**Test Information**

Test Method: LM-79-08  
Report Number: P868980  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 08/22/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: EMM2-HSN-SA2B-727-U-T3-HSS  
Description: EPIC MODERN SHORT HOUSING DISCRETE LED ARRAYS 100W 70CRI 2700K  
FITXURE w/ TYPE III DISTRIBUTION OPTIC AND HOUSE SIDE SHIELD  
Light Source: (20) 2700K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

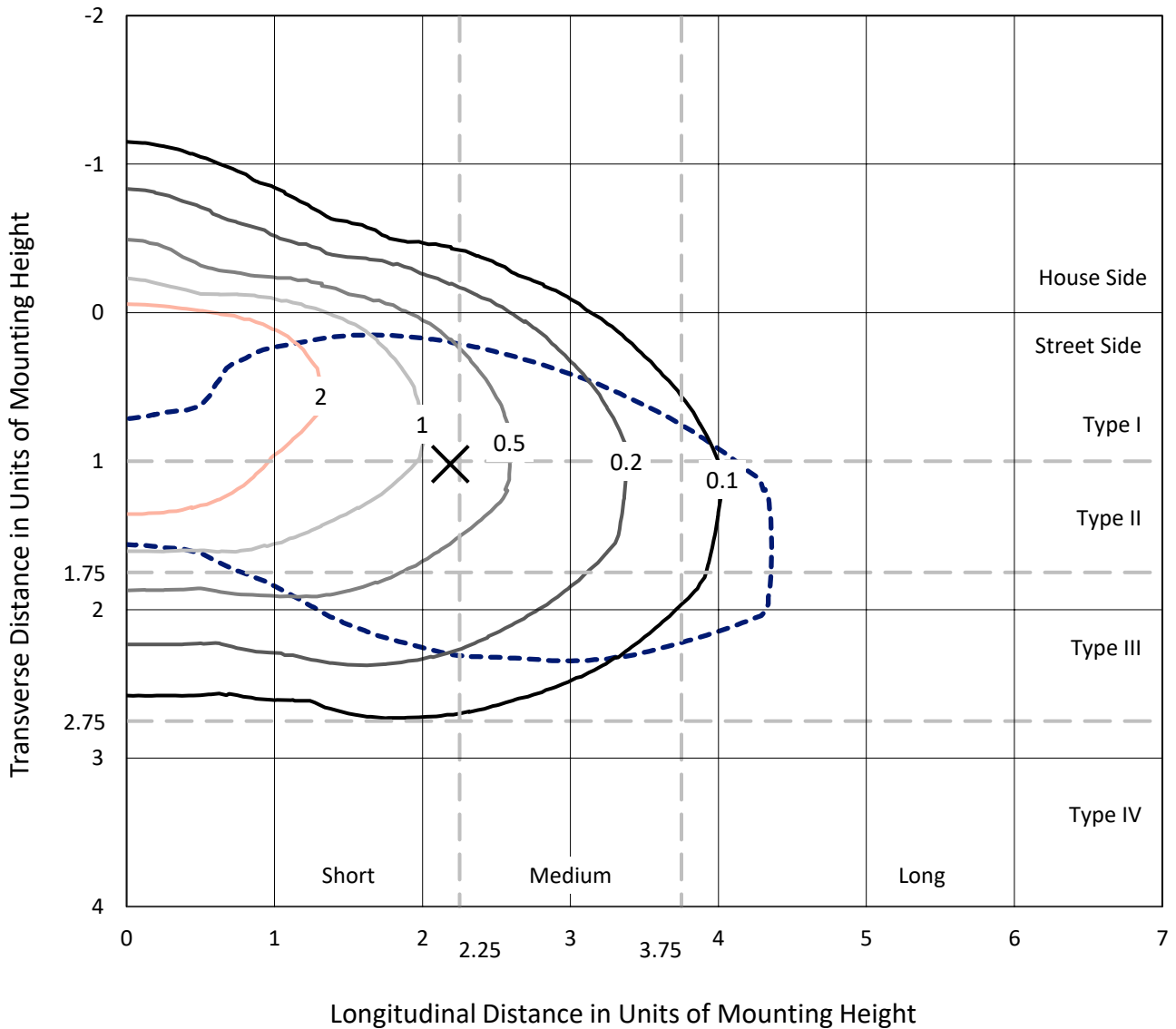
Lumens per Lamp: N/A  
Luminaire Lumens: 8280.4 lumens  
Efficiency: N/A  
Efficacy: 92.0 lumens/watt  
Luminous Opening: Rectangular (W 0.67' x L: 0.33' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B1 - U0 - G2

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

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### Iso-Footcandle Lines of Horizontal Illumination

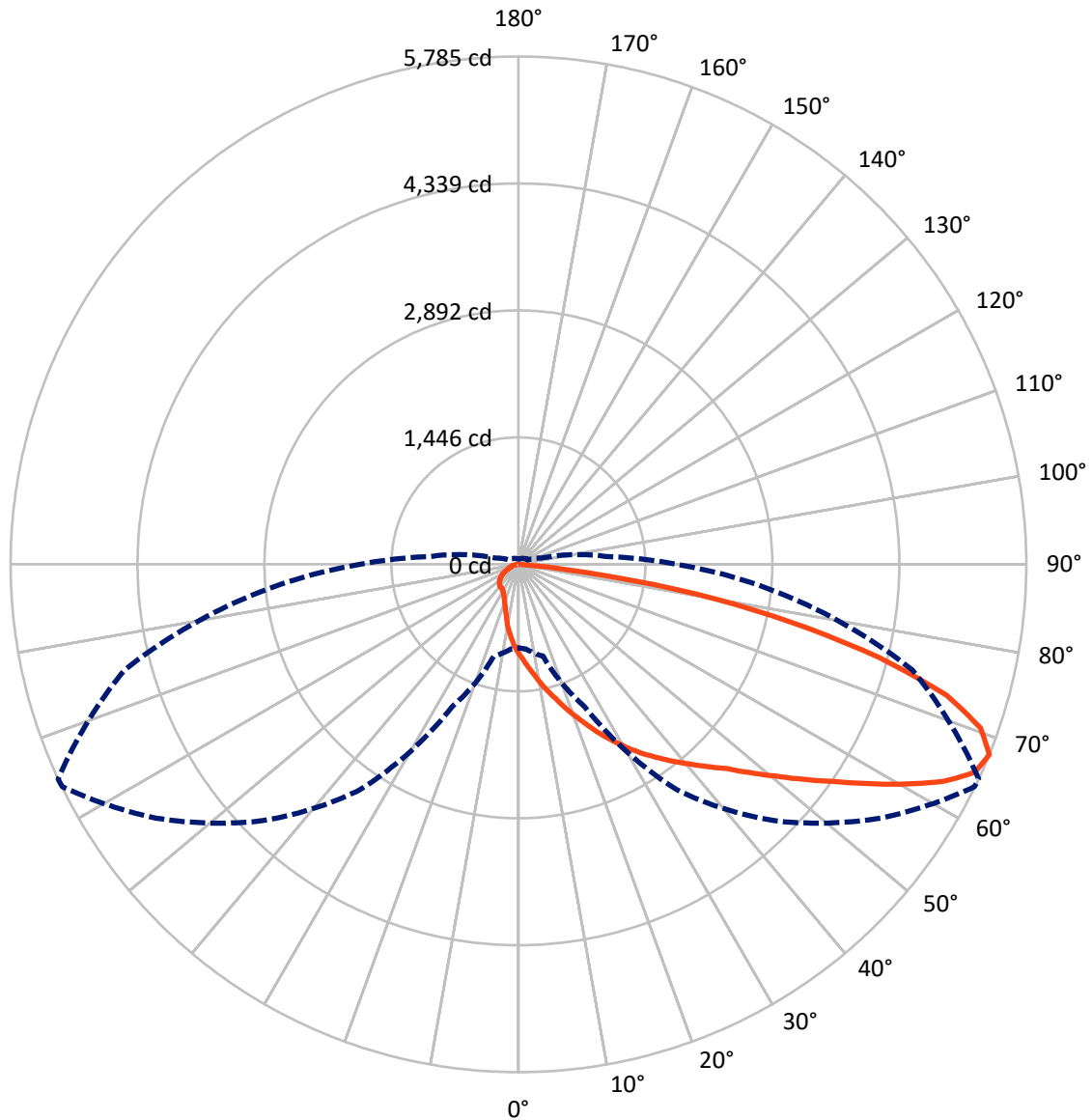
× Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 4.7 fc  
 Type III - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 65-Deg Lateral    - - - Horizontal Cone Through 67.5-Deg Vertical

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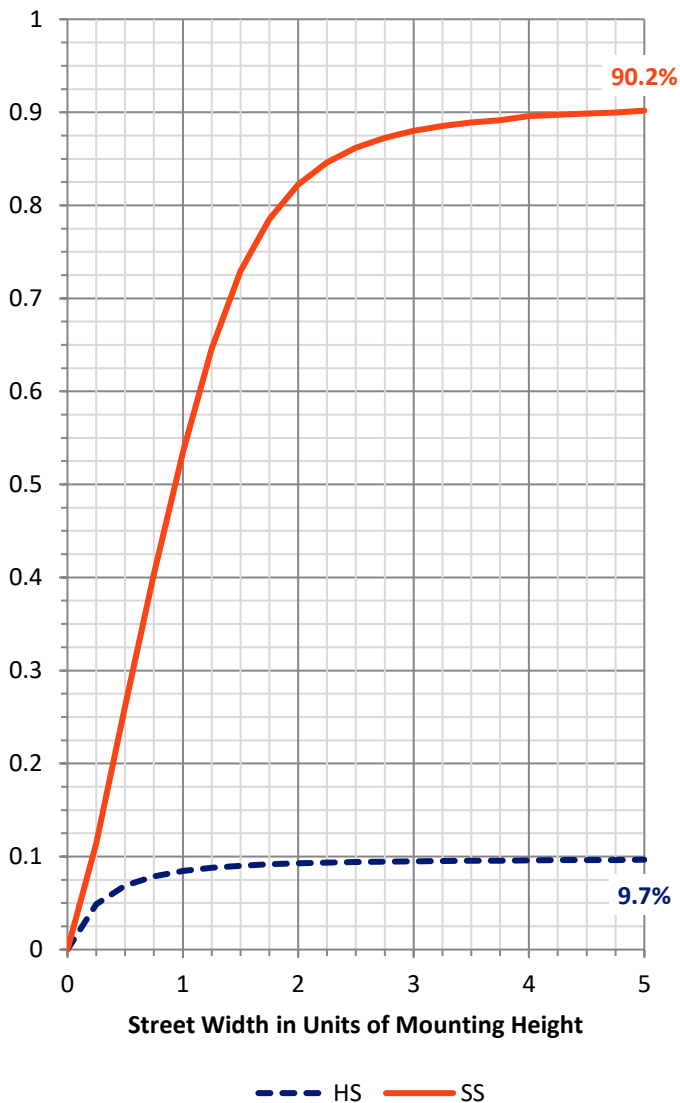
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	805.9	0.0	805.9
	% Fixture	9.7	0.0	9.7
<b>Street Side</b>	Lumens	7474.5	0.0	7474.5
	% Fixture	90.3	0.0	90.3
<b>Total</b>	Lumens	8280.4	0.0	8280.4
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	100.1	1.2
10°-20°	332.3	4.0
20°-30°	604.7	7.3
30°-40°	935.9	11.3
40°-50°	1414.7	17.1
50°-60°	1840.5	22.2
60°-70°	1815.6	21.9
70°-80°	1105.2	13.3
80°-90°	131.4	1.6
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°	8280.4	100.0
0°-180°	8280.4	100.0

**Coefficient of Utilization**



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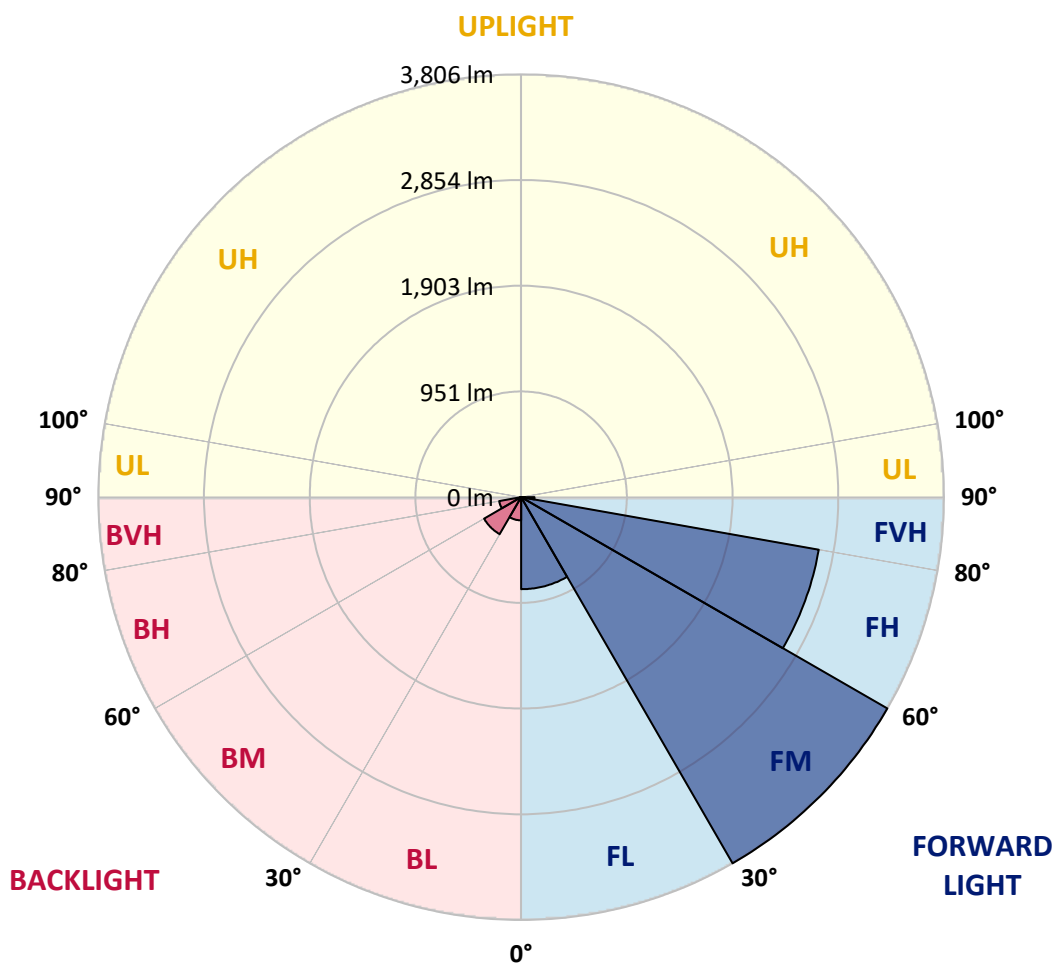
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	828.6	10.0			
FM	(30°-60°)	3805.7	46.0			
FH	(60°-80°)	2720.1	32.9			G2/5000
FVH	(80°-90°)	120.1	1.5			G2/225
BL	(0°-30°)	208.6	2.5	B1/500		
BM	(30°-60°)	385.4	4.7	B1/1000		
BH	(60°-80°)	200.7	2.4	B1/500		G1/500
BVH	(80°-90°)	11.3	0.1			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G2**

Type III Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	64°	65°	75°	85°
0°	1023.2	1023.2	1023.2	1023.2	1023.2	1023.2	1023.2	1023.2	1023.2	1023.2	1023.2
2.5°	1195.7	1186.2	1193.3	1176.8	1157.9	1143.7	1115.3	1091.7	1089.3	1065.7	1039.7
5°	1424.9	1394.2	1396.5	1363.5	1323.3	1280.8	1235.9	1176.8	1176.8	1120.1	1061.0
7.5°	1630.5	1625.8	1604.5	1552.5	1505.2	1439.1	1356.4	1280.8	1264.2	1176.8	1084.6
10°	1829.0	1821.9	1803.0	1762.8	1682.5	1609.2	1505.2	1391.8	1370.5	1245.3	1113.0
12.5°	1987.3	1989.7	1968.4	1935.3	1864.4	1777.0	1639.9	1498.1	1479.2	1311.5	1141.3
15°	2126.7	2124.3	2119.6	2091.3	2022.7	1942.4	1781.7	1616.3	1585.6	1382.4	1169.7
17.5°	2233.0	2228.3	2218.9	2195.2	2162.2	2084.2	1930.6	1741.5	1715.5	1465.1	1202.8
20°	2263.8	2261.4	2261.4	2277.9	2263.8	2216.5	2079.5	1871.5	1843.1	1552.5	1247.7
22.5°	2320.5	2318.1	2315.8	2332.3	2341.7	2337.0	2218.9	2003.8	1977.8	1654.1	1304.4
25°	2393.7	2389.0	2381.9	2398.5	2410.3	2438.6	2358.3	2159.8	2129.1	1772.3	1361.1
27.5°	2490.6	2495.3	2485.9	2483.5	2483.5	2500.1	2481.2	2299.2	2270.9	1885.7	1427.3
30°	2618.2	2625.3	2608.8	2596.9	2575.7	2573.3	2578.0	2455.2	2415.0	2008.6	1495.8
32.5°	2743.5	2750.5	2741.1	2724.6	2670.2	2648.9	2667.8	2587.5	2561.5	2143.3	1583.2
35°	2845.1	2861.6	2861.6	2828.5	2752.9	2741.1	2771.8	2717.5	2698.6	2301.6	1687.2
37.5°	2982.1	2991.6	2982.1	2920.7	2826.2	2840.3	2887.6	2854.5	2842.7	2471.7	1810.1
40°	3275.1	3286.9	3225.5	3079.0	2927.8	2944.3	3027.0	3008.1	2989.2	2639.5	1923.5
42.5°	3683.9	3655.6	3643.8	3317.7	3083.7	3074.3	3178.3	3152.3	3149.9	2809.6	2027.5
45°	3953.3	3962.8	3903.7	3594.1	3412.2	3235.0	3346.0	3336.6	3317.7	2982.1	2152.7
47.5°	4140.0	4118.7	3972.2	3823.4	3858.8	3445.3	3532.7	3556.3	3544.5	3178.3	2306.3
50°	4218.0	4196.7	4099.8	4000.6	4043.1	3686.3	3724.1	3802.1	3790.3	3376.7	2436.3
52.5°	4121.1	4095.1	4102.2	4128.2	4106.9	3875.3	3960.4	4083.3	4069.1	3608.3	2587.5
55°	3504.3	3572.9	3837.5	4102.2	4095.1	4019.5	4213.2	4392.8	4364.5	3849.3	2717.5
57.5°	2826.2	2864.0	3199.5	3915.5	4057.3	4140.0	4501.5	4723.7	4714.2	4090.4	2835.6
60°	2247.2	2287.4	2542.6	3528.0	3969.9	4265.2	4796.9	5089.9	5080.5	4333.8	2920.7
62.5°	1786.4	1786.4	2013.3	2970.3	3802.1	4338.5	5030.9	5458.6	5442.0	4529.9	2941.9
65°	1285.5	1302.0	1472.2	2389.0	3530.3	4319.6	5144.3	5720.9	5711.4	4641.0	2897.1
67.5°	949.9	968.8	1082.3	1791.2	3128.6	4130.5	5040.3	5779.9	5784.7	4643.3	2750.5
70°	742.0	746.7	831.8	1245.3	2563.9	3709.9	4650.4	5583.8	5583.8	4527.5	2533.1
72.5°	564.8	569.5	642.7	848.3	1888.0	3067.2	4066.7	5063.9	5099.4	4220.3	2211.8
75°	437.2	446.6	496.2	609.7	1183.9	2181.1	3341.3	4147.1	4244.0	3624.9	1821.9
77.5°	337.9	347.4	387.5	446.6	690.0	1344.6	2348.8	3100.3	3187.7	2854.5	1406.0
80°	271.7	276.5	302.5	335.5	418.3	692.4	1434.3	2036.9	2062.9	1940.0	931.0
82.5°	125.2	134.7	163.0	184.3	207.9	321.4	612.0	753.8	786.9	770.3	382.8
85°	14.2	14.2	16.5	18.9	21.3	33.1	42.5	37.8	37.8	44.9	40.2
87.5°	0.0	0.0	0.0	2.4	4.7	4.7	7.1	7.1	7.1	7.1	7.1
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°	1023.2	1023.2	1023.2	1023.2	1023.2	1023.2	1023.2	1023.2	1023.2	1023.2	1023.2
2.5°	1025.5	1009.0	978.3	952.3	928.7	905.0	893.2	864.9	857.8	862.5	846.0
5°	1030.3	997.2	933.4	874.3	824.7	777.4	737.3	694.7	685.3	671.1	664.0
7.5°	1037.4	987.7	888.5	796.3	720.7	652.2	602.6	569.5	543.5	536.4	534.0
10°	1046.8	975.9	838.9	723.1	619.1	548.2	503.3	479.7	470.2	463.2	465.5
12.5°	1053.9	964.1	791.6	640.4	538.8	475.0	453.7	434.8	430.1	427.7	427.7
15°	1063.4	952.3	734.9	567.1	470.2	432.4	411.2	404.1	404.1	401.7	401.7
17.5°	1075.2	942.8	687.6	510.4	430.1	394.6	385.2	375.7	375.7	375.7	373.4
20°	1098.8	938.1	645.1	463.2	394.6	371.0	356.8	349.7	347.4	345.0	345.0
22.5°	1122.4	938.1	597.8	427.7	371.0	345.0	330.8	323.7	321.4	321.4	321.4
25°	1155.5	935.8	560.0	397.0	349.7	319.0	304.8	297.7	293.0	293.0	290.7
27.5°	1193.3	935.8	527.0	373.4	326.1	295.4	278.8	271.7	264.7	264.7	262.3
30°	1231.1	940.5	498.6	354.5	302.5	274.1	252.8	243.4	238.7	236.3	236.3
32.5°	1280.8	954.7	479.7	340.3	281.2	252.8	231.6	222.1	217.4	215.0	215.0
35°	1356.4	990.1	482.1	333.2	267.0	233.9	212.7	200.9	198.5	198.5	196.1
37.5°	1436.7	1023.2	489.1	328.5	252.8	219.8	198.5	186.7	184.3	184.3	184.3
40°	1505.2	1051.5	498.6	326.1	241.0	205.6	186.7	177.2	172.5	172.5	172.5
42.5°	1573.8	1068.1	501.0	319.0	233.9	193.8	177.2	167.8	163.0	165.4	165.4
45°	1642.3	1079.9	493.9	309.6	226.8	184.3	167.8	158.3	153.6	153.6	153.6
47.5°	1725.0	1105.9	482.1	295.4	222.1	177.2	158.3	148.9	146.5	146.5	146.5
50°	1807.7	1127.2	472.6	278.8	210.3	167.8	151.2	139.4	137.1	137.1	137.1
52.5°	1876.2	1136.6	460.8	257.6	198.5	158.3	141.8	130.0	125.2	125.2	125.2
55°	1928.2	1139.0	444.2	241.0	182.0	148.9	132.3	120.5	115.8	113.4	113.4
57.5°	1970.8	1136.6	427.7	224.5	167.8	137.1	120.5	111.1	104.0	101.6	101.6
60°	1994.4	1129.5	404.1	203.2	148.9	125.2	111.1	99.2	94.5	92.2	92.2
62.5°	1980.2	1110.6	371.0	170.1	134.7	113.4	101.6	92.2	85.1	82.7	82.7
65°	1914.0	1072.8	328.5	139.4	120.5	101.6	92.2	82.7	73.3	70.9	70.9
67.5°	1798.3	1009.0	271.7	118.2	111.1	92.2	82.7	73.3	66.2	61.4	61.4
70°	1637.6	923.9	212.7	101.6	99.2	85.1	75.6	66.2	59.1	54.3	54.3
72.5°	1408.4	784.5	158.3	87.4	87.4	78.0	68.5	61.4	54.3	49.6	49.6
75°	1139.0	593.1	120.5	80.3	78.0	70.9	61.4	54.3	49.6	44.9	44.9
77.5°	831.8	394.6	99.2	73.3	73.3	63.8	56.7	49.6	44.9	42.5	42.5
80°	505.7	226.8	70.9	56.7	56.7	54.3	47.3	42.5	40.2	35.4	33.1
82.5°	205.6	87.4	37.8	28.4	28.4	26.0	16.5	14.2	14.2	14.2	11.8
85°	21.3	14.2	9.5	7.1	7.1	7.1	4.7	4.7	4.7	4.7	4.7
87.5°	7.1	7.1	4.7	4.7	4.7	4.7	2.4	2.4	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: SP1-2407-157-3

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:  $4\pi$   
 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  
 R<sub>f</sub>: 75.5  
 R<sub>g</sub>: 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**



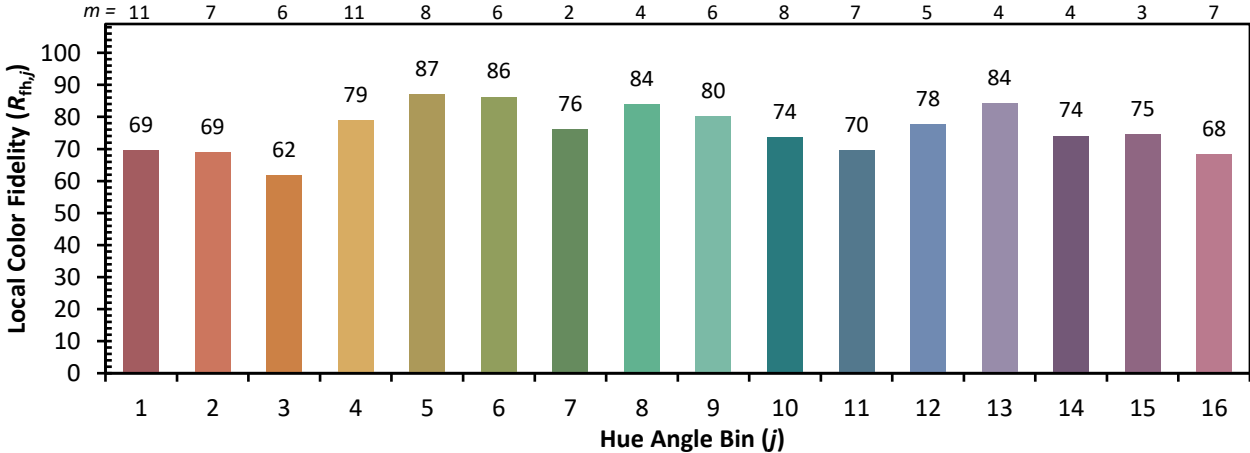


**Individual Sample Fidelity Index ( $R_{f,i}$ )**

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)