

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: P868633

Luminaire Tested: **EMM2-HTN-SA3B-727-U-T4W-HSS**

Issue Date: 08/22/2024



**Test Information**

Test Method: LM-79-08  
Report Number: P868633  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 08/22/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: EMM2-HTN-SA3B-727-U-T4W-HSS  
Description: EPIC MODERN TALL HOUSING DISCRETE LED ARRAYS 150W 70CRI 2700K  
FIXTURE w/ TYPE IV WIDE DISTRIBUTION OPTIC AND HOUSE SIDE SHIELD  
Light Source: (30) 2700K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

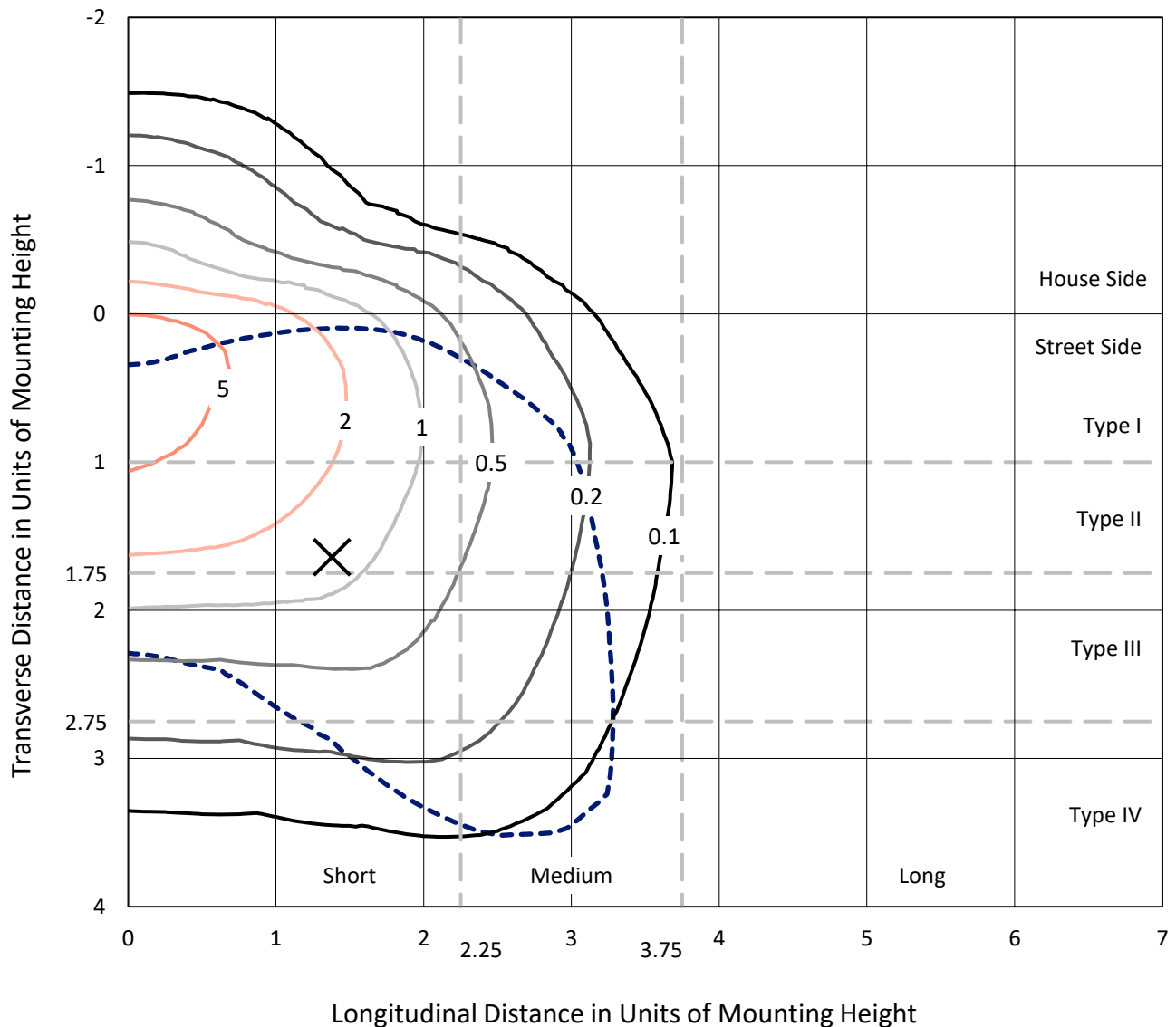
Lumens per Lamp: N/A  
Luminaire Lumens: 12455.4 lumens  
Efficiency: N/A  
Efficacy: 93.0 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 0.33' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B1 - U0 - G2

Input Watts (W): 134  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: 0.99  
Total Harmonic Distortion (THDi): 6.70%  
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

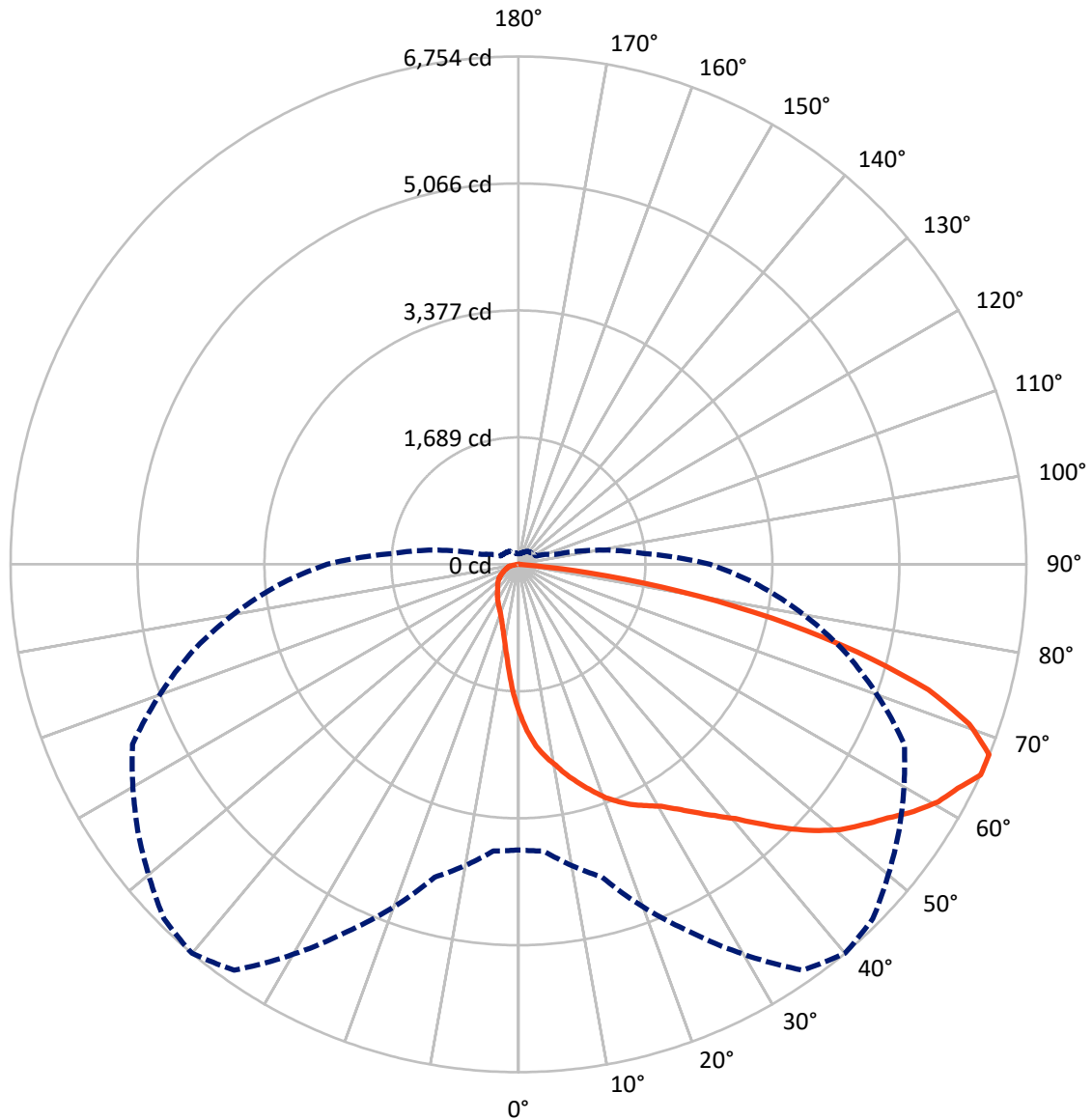
× Max cd  
 - - - 1/2 Max cd



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

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### Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral    - - - Horizontal Cone Through 65-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1491.2	0.0	1491.2
	% Fixture	12.0	0.0	12.0
<b>Street Side</b>	Lumens	10964.2	0.0	10964.2
	% Fixture	88.0	0.0	88.0
<b>Total</b>	Lumens	12455.4	0.0	12455.4
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	185.3	1.5
10°-20°	557.3	4.5
20°-30°	958.6	7.7
30°-40°	1449.1	11.6
40°-50°	2118.9	17.0
50°-60°	2706.3	21.7
60°-70°	2700.9	21.7
70°-80°	1583.8	12.7
80°-90°	195.1	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°	12455.4	100.0
0°-180°	12455.4	100.0



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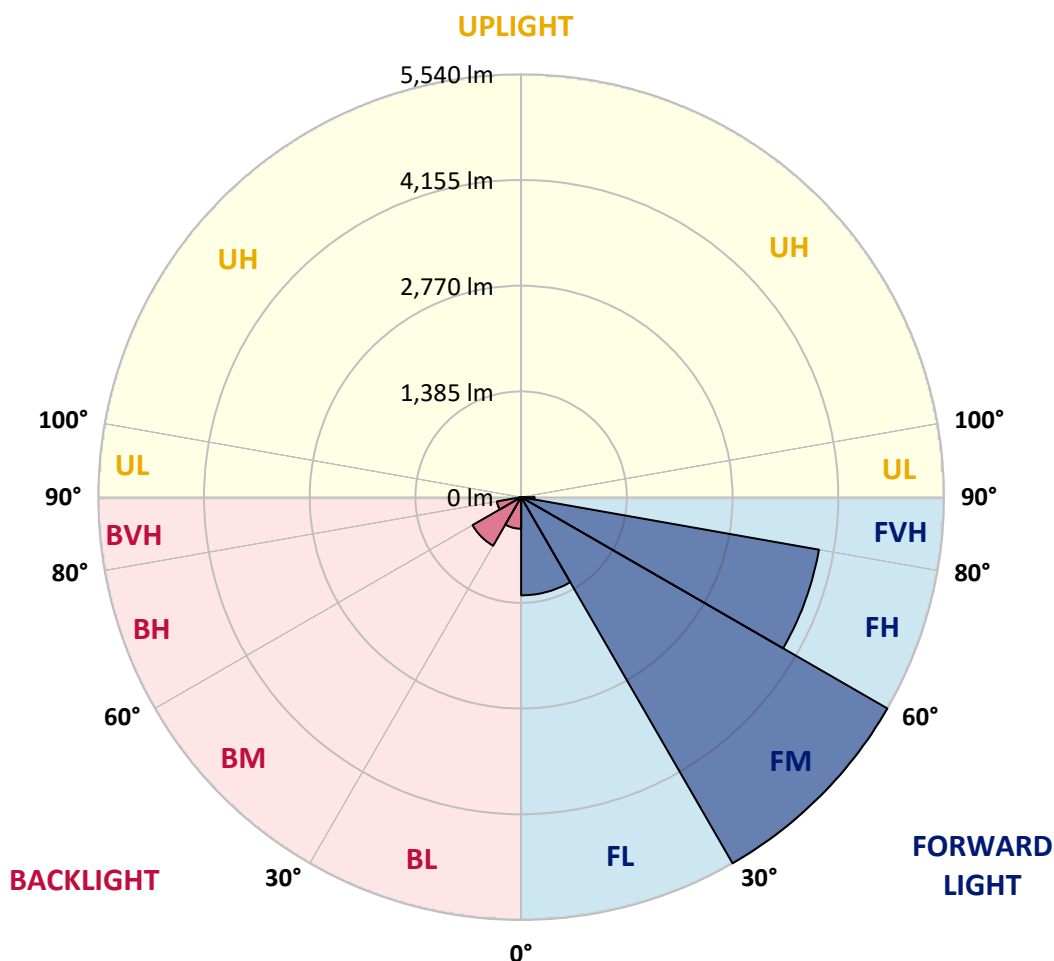
CATALOG NUMBER: EMM2-HTN-SA3B-727-U-T4W-HSS

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1286.5	10.3			
FM (30°-60°)	5539.6	44.5			
FH (60°-80°)	3961.9	31.8			G2/5000
FVH (80°-90°)	176.3	1.4			G2/225
BL (0°-30°)	414.8	3.3	B1/500		
BM (30°-60°)	734.8	5.9	B1/1000		
BH (60°-80°)	322.9	2.6	B1/500		G1/500
BVH (80°-90°)	18.8	0.2			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 IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	1979.9	1979.9	1979.9	1979.9	1979.9	1979.9	1979.9	1979.9	1979.9	1979.9	1979.9
2.5°	2309.9	2299.3	2278.3	2260.7	2236.1	2215.1	2194.0	2155.4	2106.3	2064.1	2011.5
5°	2538.0	2520.5	2506.5	2485.4	2443.3	2425.7	2411.7	2330.9	2246.7	2158.9	2043.1
7.5°	2699.5	2713.6	2685.5	2653.9	2601.2	2580.2	2559.1	2478.4	2373.1	2246.7	2081.7
10°	2885.6	2889.1	2854.0	2815.4	2759.2	2717.1	2689.0	2590.7	2474.9	2334.4	2123.8
12.5°	3064.6	3064.6	3043.5	2987.4	2913.7	2875.0	2825.9	2713.6	2573.2	2408.2	2173.0
15°	3208.5	3215.6	3198.0	3155.9	3075.1	3022.5	2973.3	2843.5	2664.4	2492.4	2211.6
17.5°	3338.4	3334.9	3324.4	3285.8	3208.5	3166.4	3117.3	2973.3	2769.7	2559.1	2271.3
20°	3426.2	3426.2	3422.7	3401.6	3345.4	3313.9	3254.2	3103.2	2885.6	2657.4	2334.4
22.5°	3492.9	3489.4	3489.4	3492.9	3461.3	3429.7	3405.1	3254.2	3004.9	2741.7	2397.6
25°	3549.1	3545.5	3556.1	3563.1	3549.1	3542.0	3513.9	3398.1	3152.4	2839.9	2460.8
27.5°	3622.8	3633.3	3629.8	3629.8	3626.3	3633.3	3629.8	3531.5	3296.3	2945.3	2527.5
30°	3738.6	3756.2	3745.6	3731.6	3731.6	3735.1	3752.7	3689.5	3464.8	3075.1	2601.2
32.5°	4008.9	3991.4	3917.6	3868.5	3875.5	3879.0	3896.6	3861.5	3633.3	3222.6	2678.5
35°	4317.8	4296.8	4216.0	4103.7	4065.1	4051.0	4047.5	4026.5	3815.8	3380.6	2769.7
37.5°	4718.0	4725.0	4605.7	4444.2	4328.4	4240.6	4223.1	4177.4	3973.8	3524.5	2864.5
40°	5125.2	5097.2	4995.4	4837.4	4609.2	4447.7	4395.1	4331.9	4152.8	3675.4	2955.8
42.5°	5518.4	5465.8	5332.4	5160.3	4893.5	4718.0	4598.7	4517.9	4317.8	3840.4	3043.5
45°	6030.9	5880.0	5641.3	5486.8	5153.3	5009.4	4900.6	4721.5	4514.4	4005.4	3148.9
47.5°	6434.6	6143.3	5925.6	5858.9	5423.6	5290.2	5191.9	4942.7	4714.5	4191.5	3257.7
50°	6360.9	6181.9	6129.2	6069.5	5627.2	5546.5	5455.2	5195.4	4918.1	4388.0	3363.0
52.5°	6171.3	6192.4	6259.1	6157.3	5806.3	5750.1	5690.4	5465.8	5121.7	4549.5	3457.8
55°	6020.4	6062.5	6241.6	6210.0	6020.4	5957.2	5915.1	5732.5	5318.3	4697.0	3538.5
57.5°	5746.6	5711.5	5936.1	6301.2	6248.6	6199.4	6157.3	6013.4	5518.4	4802.3	3591.2
60°	5314.8	5184.9	5486.8	6188.9	6406.5	6413.6	6389.0	6224.0	5679.9	4802.3	3563.1
62.5°	4707.5	4584.6	4956.7	5813.3	6490.8	6557.5	6543.5	6297.7	5750.1	4697.0	3454.3
65°	3798.3	3826.4	4307.3	5388.5	6589.1	6754.1	6666.3	6178.4	5662.3	4493.4	3208.5
67.5°	3033.0	3117.3	3549.1	4837.4	6543.5	6750.6	6627.7	5841.4	5286.7	4209.0	2832.9
70°	2394.1	2450.3	2808.4	4093.2	6143.3	6360.9	6206.5	5325.3	4651.3	3770.2	2355.5
72.5°	1871.1	1923.7	2229.1	3275.2	5448.2	5701.0	5507.9	4630.3	3858.0	3198.0	1871.1
75°	1421.7	1460.3	1688.5	2524.0	4338.9	4654.8	4514.4	3707.0	3012.0	2531.0	1432.3
77.5°	916.2	968.9	1225.1	1769.3	3064.6	3443.7	3461.3	2769.7	2165.9	1828.9	1053.1
80°	607.3	628.4	786.3	1151.4	1885.1	2180.0	2281.8	1871.1	1383.1	1165.5	758.3
82.5°	252.8	280.8	375.6	579.2	944.3	947.8	1084.7	789.8	561.7	495.0	319.4
85°	7.0	14.0	10.5	28.1	24.6	38.6	45.6	63.2	45.6	49.1	49.1
87.5°	0.0	0.0	3.5	3.5	7.0	7.0	7.0	7.0	7.0	10.5	7.0
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°	1979.9	1979.9	1979.9	1979.9	1979.9	1979.9	1979.9	1979.9	1979.9	1979.9	1979.9
2.5°	1986.9	1955.3	1892.1	1843.0	1790.3	1751.7	1716.6	1678.0	1653.4	1656.9	1632.4
5°	1986.9	1927.2	1800.9	1688.5	1586.7	1513.0	1432.3	1369.1	1323.4	1316.4	1337.5
7.5°	1997.4	1899.1	1709.6	1541.1	1400.7	1284.8	1200.6	1137.4	1105.8	1084.7	1081.2
10°	2008.0	1878.1	1625.3	1411.2	1235.7	1109.3	1035.6	965.4	930.3	926.8	916.2
12.5°	2015.0	1853.5	1548.1	1281.3	1098.8	979.4	905.7	849.5	821.4	821.4	817.9
15°	2039.6	1846.5	1467.4	1183.0	993.5	877.6	814.4	768.8	751.2	740.7	737.2
17.5°	2060.6	1832.4	1397.2	1084.7	898.7	796.9	737.2	705.6	688.0	681.0	677.5
20°	2092.2	1825.4	1330.5	1004.0	828.5	730.2	684.5	656.5	645.9	638.9	638.9
22.5°	2123.8	1818.4	1263.8	933.8	768.8	681.0	638.9	614.3	603.8	600.3	596.8
25°	2162.4	1814.9	1207.6	874.1	716.1	642.4	603.8	582.7	568.7	561.7	561.7
27.5°	2201.0	1818.4	1151.4	814.4	670.5	607.3	568.7	544.1	533.6	519.5	523.1
30°	2253.7	1821.9	1105.8	765.3	631.9	572.2	537.1	505.5	491.5	484.4	484.4
32.5°	2306.4	1836.0	1060.2	719.6	593.3	544.1	502.0	473.9	456.4	452.8	449.3
35°	2362.5	1846.5	1018.0	681.0	561.7	512.5	470.4	442.3	428.3	424.8	424.8
37.5°	2425.7	1864.0	986.4	645.9	530.1	480.9	442.3	414.2	403.7	400.2	400.2
40°	2492.4	1892.1	961.9	614.3	505.5	452.8	417.7	393.2	386.1	382.6	382.6
42.5°	2559.1	1916.7	940.8	589.8	480.9	428.3	400.2	375.6	365.1	365.1	365.1
45°	2622.3	1934.3	919.7	565.2	456.4	410.7	379.1	358.1	347.5	347.5	347.5
47.5°	2678.5	1951.8	888.1	540.6	431.8	386.1	361.6	340.5	330.0	330.0	330.0
50°	2738.1	1962.3	853.0	509.0	407.2	368.6	344.0	319.4	312.4	308.9	308.9
52.5°	2787.3	1962.3	807.4	477.4	379.1	344.0	323.0	301.9	291.4	284.3	284.3
55°	2822.4	1962.3	758.3	438.8	351.0	323.0	301.9	280.8	266.8	256.3	256.3
57.5°	2843.5	1951.8	702.1	393.2	323.0	294.9	280.8	256.3	228.2	207.1	200.1
60°	2825.9	1920.2	642.4	344.0	291.4	270.3	259.8	228.2	189.6	179.0	179.0
62.5°	2752.2	1846.5	582.7	301.9	266.8	245.7	235.2	200.1	172.0	161.5	161.5
65°	2545.1	1667.5	509.0	263.3	238.7	224.7	210.6	179.0	154.5	140.4	140.4
67.5°	2243.2	1439.3	424.8	231.7	214.1	203.6	193.1	161.5	136.9	122.9	122.9
70°	1818.4	1162.0	361.6	203.6	189.6	182.5	172.0	147.4	119.4	108.8	108.8
72.5°	1428.7	912.7	301.9	182.5	175.5	161.5	154.5	129.9	108.8	98.3	98.3
75°	1063.7	681.0	266.8	161.5	161.5	143.9	140.4	115.8	94.8	87.8	87.8
77.5°	782.8	505.5	231.7	140.4	140.4	126.4	119.4	101.8	87.8	80.7	80.7
80°	530.1	344.0	172.0	105.3	105.3	101.8	94.8	87.8	73.7	66.7	63.2
82.5°	224.7	143.9	84.3	52.7	49.1	38.6	31.6	24.6	24.6	21.1	21.1
85°	38.6	17.6	17.6	14.0	10.5	10.5	10.5	7.0	7.0	7.0	7.0
87.5°	7.0	7.0	7.0	7.0	7.0	7.0	3.5	3.5	3.5	3.5	3.5
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

REPORT NUMBER: SP1-2407-157-3

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**

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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**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

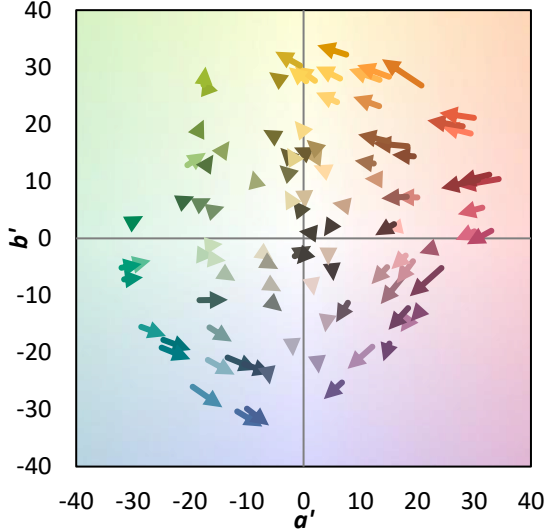
λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)
360	0	NR	490	103	NR	620	846	NR	750	20	NR	880	0	NR
365	0	NR	495	130	NR	625	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**



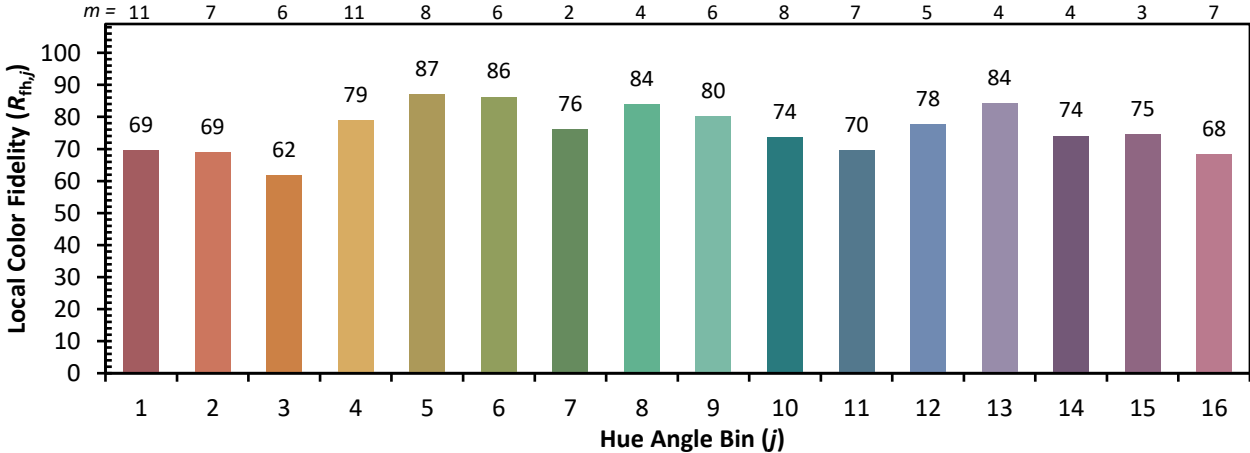


**Individual Sample Fidelity Index ( $R_{f,i}$ )**

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)