

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: P597158

Luminaire Tested: **MSA-SA4D-835-U-5NQ**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P597158
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-5)
Test Lab: INNOVATIONS CENTER
Issue Date: 5/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA4D-835-U-5NQ
Description: MESA POST TOP DECORATIVE LUMINAIRE. (4) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE V NARROW OPTICS.
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 22193 lumens
Efficiency: N/A
Efficacy: 85.7 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type V - Short
BUG Rating: B4 - U0 - G2

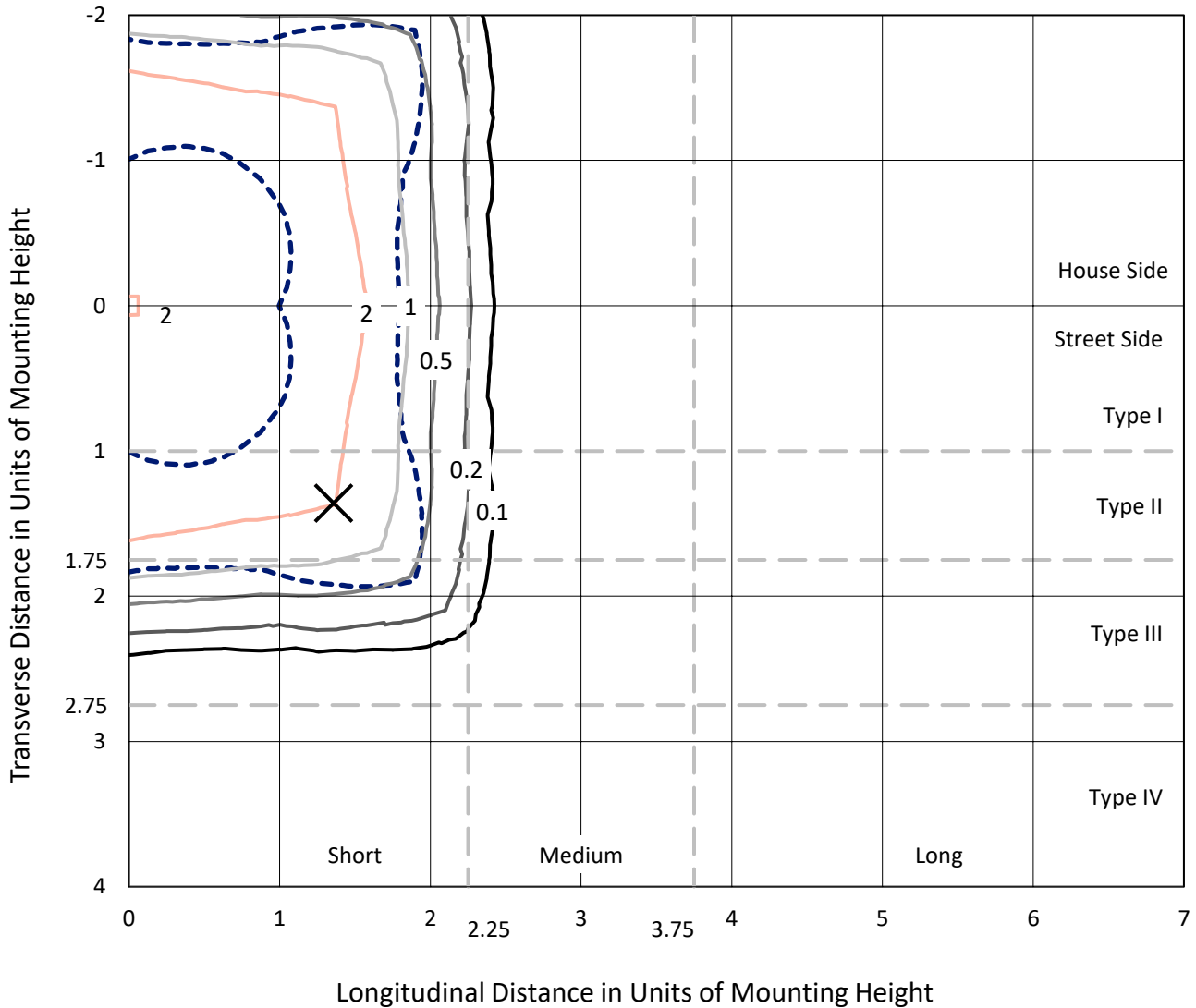
Input Watts (W): 259
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

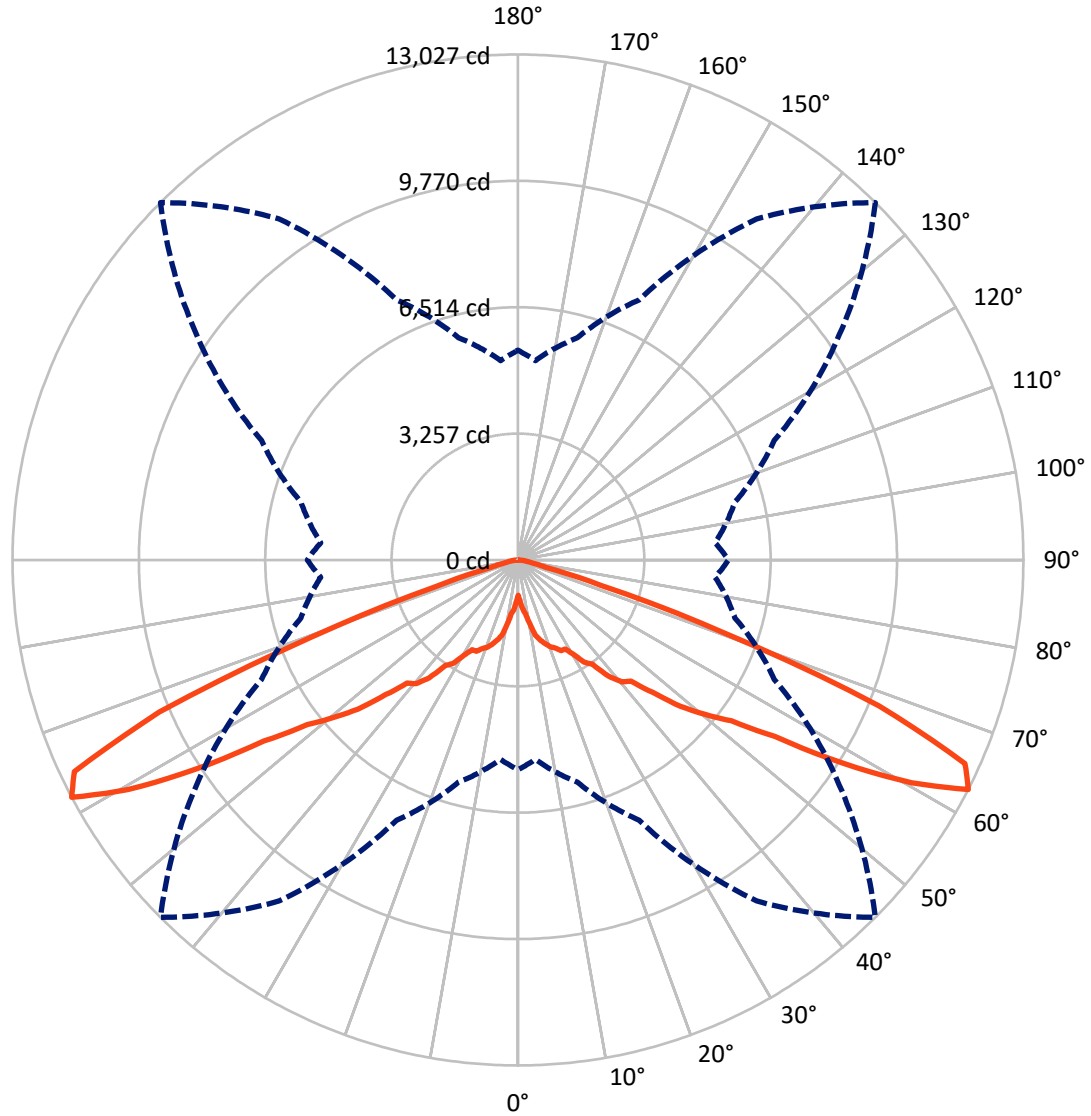
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.8 fc
 Type V - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 62.5-Deg Vertical

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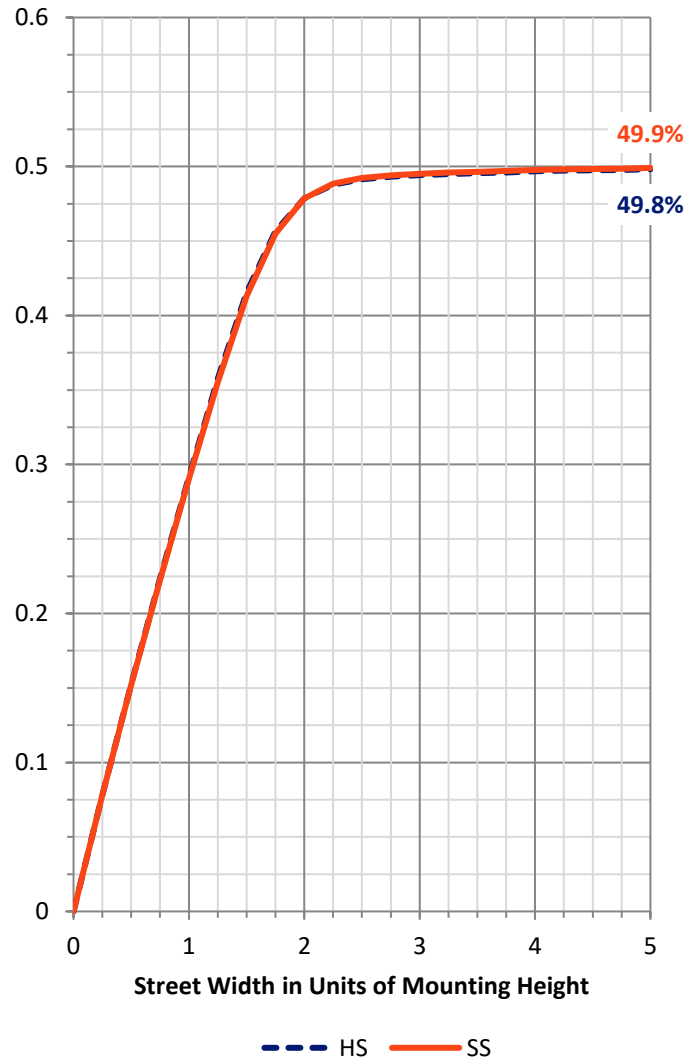
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	11096.5	0.0	11096.5
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	11096.5	0.0	11096.5
	% Fixture	50.0	0.0	50.0
Total	Lumens	22193.0	0.0	22193.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	136.8	0.6
10°-20°	603.0	2.7
20°-30°	1263.9	5.7
30°-40°	2381.3	10.7
40°-50°	4321.9	19.5
50°-60°	7302.6	32.9
60°-70°	5459.2	24.6
70°-80°	610.7	2.8
80°-90°	113.6	0.5
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°	22193.0	100.0
0°-180°	22193.0	100.0



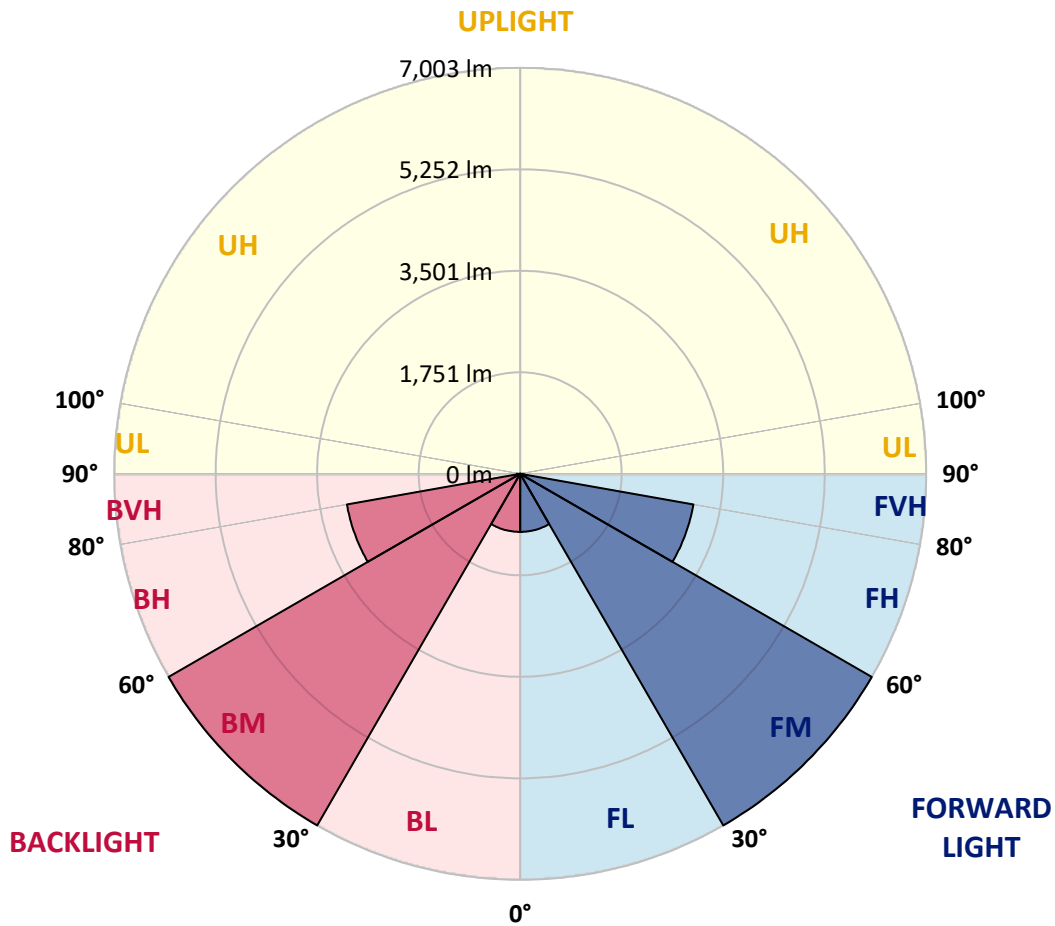
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1001.8	4.5			
FM (30°-60°)	7002.9	31.6			
FH (60°-80°)	3034.9	13.7			G2/5000
FVH (80°-90°)	56.8	0.3			G1/100
BL (0°-30°)	1001.8	4.5	B3/2500		
BM (30°-60°)	7002.9	31.6	B4/8500		
BH (60°-80°)	3034.9	13.7	B4/5000		G2/5000
BVH (80°-90°)	56.8	0.3			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G2

Type V Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	907.4	907.4	907.4	907.4	907.4	907.4	907.4	907.4	907.4	907.4	907.4
2.5°	1103.3	1083.5	1014.0	1038.3	1063.6	1060.0	1053.7	1034.7	1017.6	1088.9	1103.3
5°	1406.7	1361.6	1337.2	1317.3	1312.8	1264.1	1330.9	1323.6	1346.2	1384.1	1421.2
7.5°	1648.7	1606.3	1542.1	1528.6	1455.5	1401.3	1459.1	1530.4	1553.0	1622.5	1664.0
10°	1737.2	1700.2	1711.9	1651.4	1647.8	1663.1	1650.5	1666.7	1726.3	1718.2	1748.9
12.5°	1935.8	1942.1	1904.2	1888.9	1919.6	1986.4	1929.5	1909.6	1895.2	1956.6	1975.5
15°	2121.8	2158.8	2096.5	2086.6	2074.0	2136.3	2074.9	2104.7	2130.8	2143.5	2136.3
17.5°	2385.5	2387.3	2317.7	2206.7	2248.2	2268.1	2241.0	2189.5	2313.2	2375.5	2379.1
20°	2558.8	2565.1	2427.9	2254.5	2371.9	2390.0	2376.4	2269.0	2433.3	2537.1	2532.6
22.5°	2745.7	2724.0	2538.0	2411.6	2453.2	2464.0	2435.1	2421.6	2537.1	2725.8	2697.9
25°	2871.2	2910.9	2725.8	2644.6	2609.4	2584.1	2621.1	2628.3	2746.6	2918.2	2823.4
27.5°	3171.0	3102.4	2812.5	2843.2	2768.3	2597.6	2760.2	2849.5	2824.3	3116.8	3188.1
30°	3437.3	3439.1	3032.8	3091.5	2952.5	2814.3	2990.4	3119.5	3087.9	3462.6	3394.9
32.5°	3777.7	3790.4	3413.0	3255.9	3161.9	3135.8	3114.1	3256.8	3453.6	3757.0	3763.3
35°	4145.2	4253.6	3740.7	3575.5	3415.7	3300.1	3424.7	3622.4	3750.6	4235.5	4149.7
37.5°	4861.2	4678.8	4259.0	3948.4	3846.3	3800.3	3866.2	3980.9	4258.1	4676.1	4823.3
40°	5284.7	5234.1	4662.6	4402.5	4008.9	4131.7	4095.5	4409.8	4639.1	5263.0	5276.5
42.5°	5932.0	5677.4	5163.7	4833.2	4479.3	4266.2	4491.9	4913.6	5190.8	5718.1	5967.3
45°	6444.0	6117.1	5720.8	5469.8	5022.8	4864.8	4946.1	5486.0	5833.6	6195.7	6523.4
47.5°	7010.1	6656.2	6259.8	5813.8	5377.7	5635.0	5491.4	5966.4	6305.8	6825.0	7132.0
50°	7721.6	7329.7	6822.3	6453.9	6165.0	6255.3	6232.7	6571.3	6990.2	7463.4	7811.9
52.5°	8505.3	8062.0	7572.6	7230.4	7108.5	6884.6	7177.1	7316.2	7625.0	8058.4	8467.4
55°	9053.4	8610.0	8313.9	8424.0	8391.5	8032.2	8288.6	8303.1	8154.1	8310.3	8722.0
57.5°	8968.5	8545.0	8504.4	8920.6	9542.7	9890.3	9494.0	8641.6	8083.6	8010.5	8446.6
60°	7841.7	7479.6	7851.6	8790.6	10602.7	11660.9	10135.0	8386.1	7467.0	7086.8	7507.6
62.5°	5403.8	5159.2	5930.2	7398.3	10730.0	13027.0	10111.6	7287.3	5791.2	5101.4	5428.2
65°	2561.5	2473.0	3124.0	4690.6	8937.8	12662.2	8834.0	4930.7	3333.5	2662.6	2736.7
67.5°	963.4	919.2	1146.7	2072.2	5629.6	10042.9	5938.4	2432.4	1289.3	1002.2	1036.5
70°	547.2	515.6	545.4	755.7	2266.3	5688.3	2561.5	834.3	548.1	499.3	531.8
72.5°	430.7	406.3	410.8	456.9	781.9	2232.9	828.9	475.8	398.2	378.3	407.2
75°	355.7	334.1	333.2	358.5	456.0	725.0	468.6	363.9	322.3	307.9	331.4
77.5°	282.6	270.0	273.6	293.4	326.8	405.4	339.5	294.3	264.5	247.4	263.6
80°	206.8	205.0	219.4	237.5	243.8	272.7	254.6	237.5	211.3	186.9	193.2
82.5°	135.4	136.3	163.4	177.9	175.2	174.3	182.4	181.5	158.0	123.7	123.7
85°	77.6	79.5	100.2	112.0	110.2	87.6	115.6	116.5	101.1	74.9	72.2
87.5°	25.3	31.6	43.3	46.0	44.2	24.4	44.2	48.8	44.2	31.6	28.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)