

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: P596031

Luminaire Tested: **MSA-SA1A-AMB-U-5MQ**

Issue Date: 4/29/2022

**Test Information**

Test Method: LM-79-08  
Report Number: P596031  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2109-400-6)  
Test Lab: INNOVATIONS CENTER  
Issue Date: 4/29/2022  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: MSA-SA1A-AMB-U-5MQ  
Description: POST TOP DECORATIVE LUMINAIRE. (1) LIGHTSQUARES WITH 16 LEDS EACH  
AND TYPE V MEDIUM OPTICS.  
Light Source: (16) 1549K CCT, -21.5 CRI LEDS  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 964 lumens  
Efficiency: N/A  
Efficacy: 47.0 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type V - Short - Full Cutoff  
BUG Rating: B1 - U0 - G0

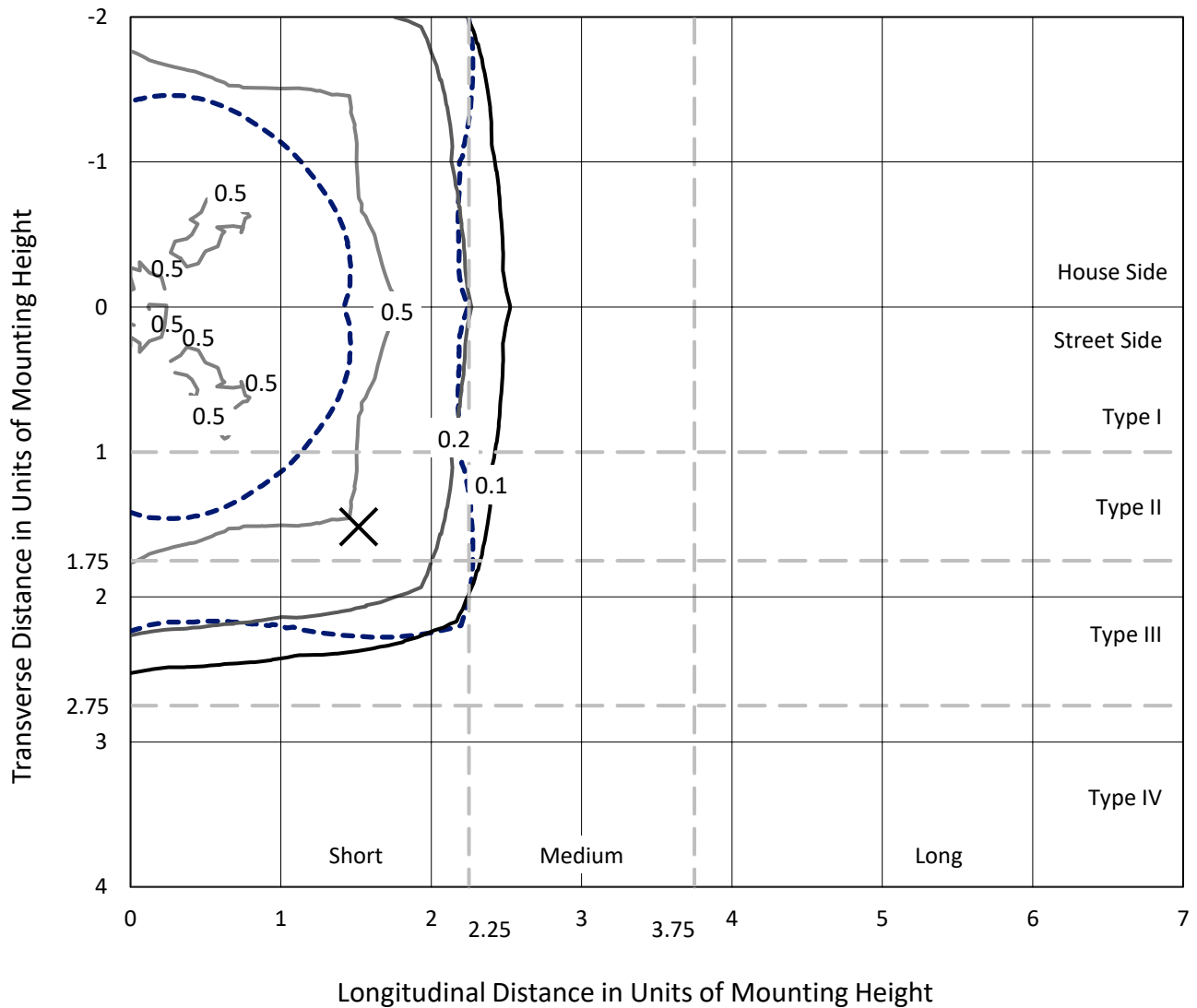
Input Watts (W): 20.5  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

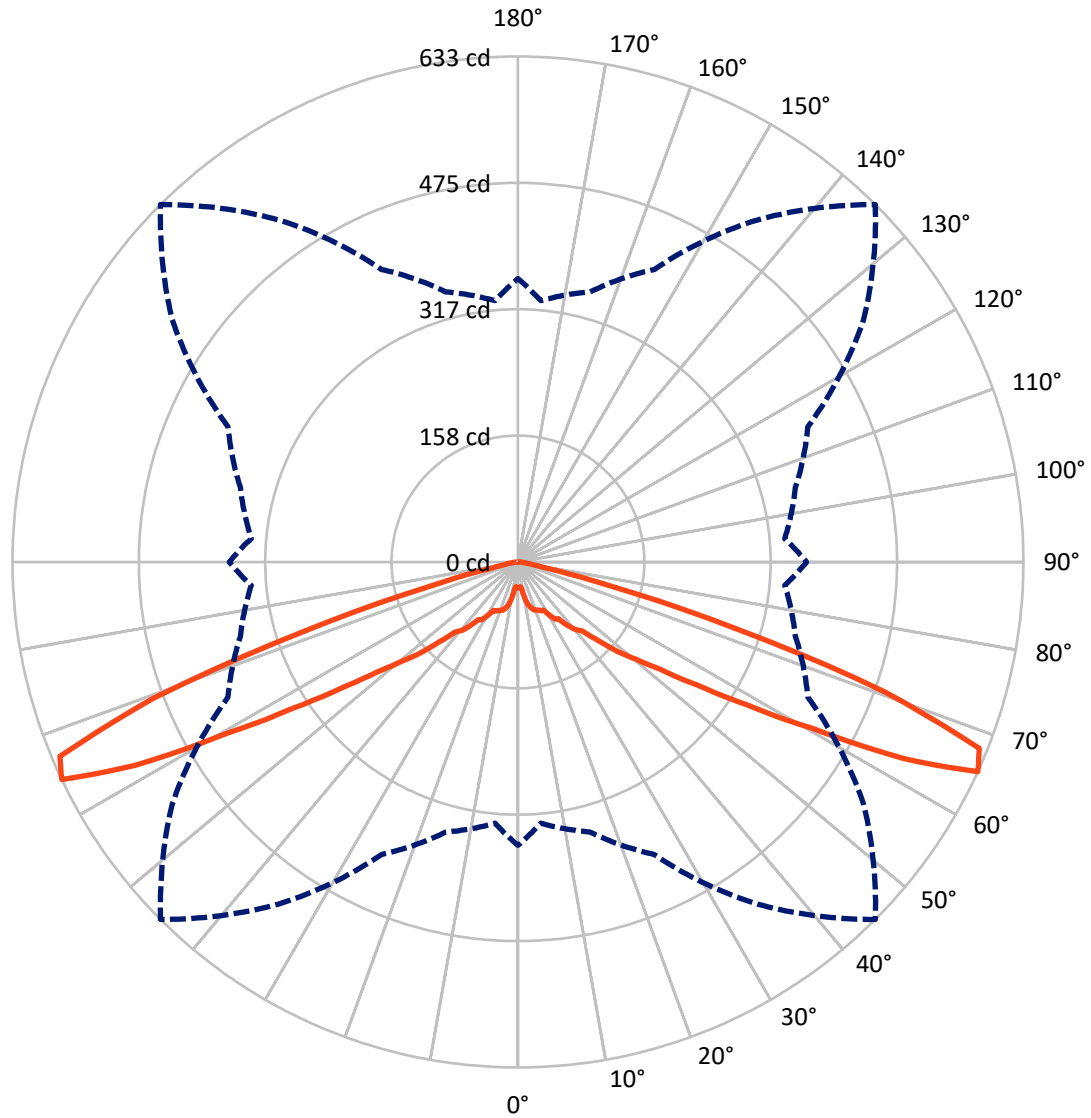
✕ Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 0.6 fc  
 Type V - Short - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral      - - - Horizontal Cone Through 65-Deg Vertical

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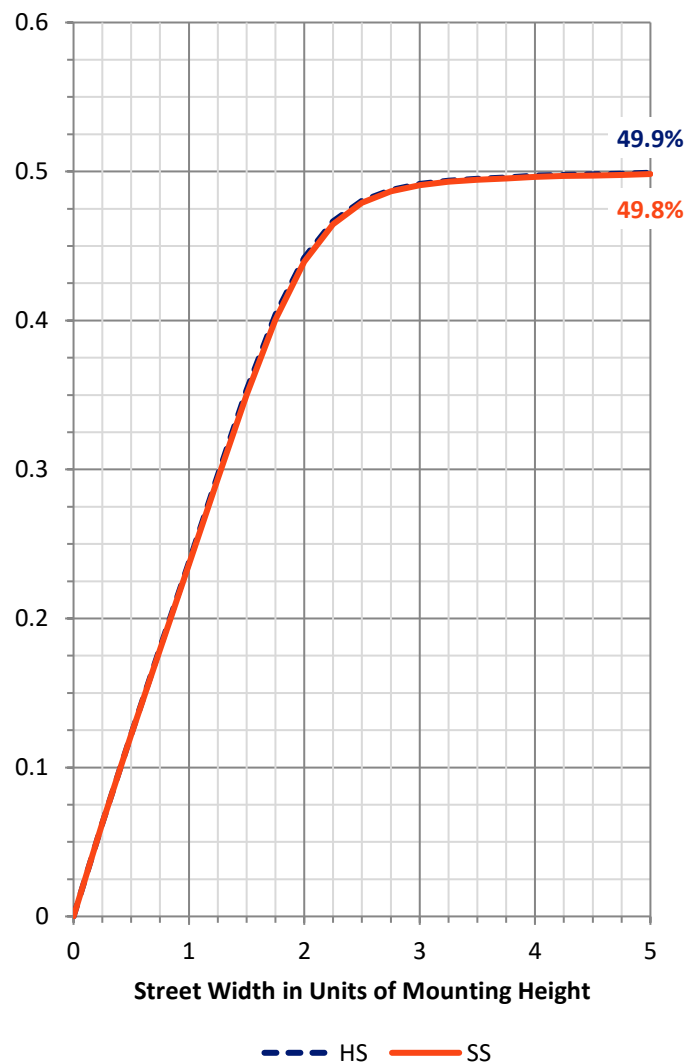
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	482.0	0.0	482.0
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	482.0	0.0	482.0
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	964.0	0.0	964.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	4.0	0.4
10°-20°	16.2	1.7
20°-30°	32.6	3.4
30°-40°	61.6	6.4
40°-50°	122.8	12.7
50°-60°	263.1	27.3
60°-70°	379.9	39.4
70°-80°	77.6	8.0
80°-90°	6.4	0.7
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°	964.0	100.0
0°-180°	964.0	100.0

**Coefficient of Utilization**



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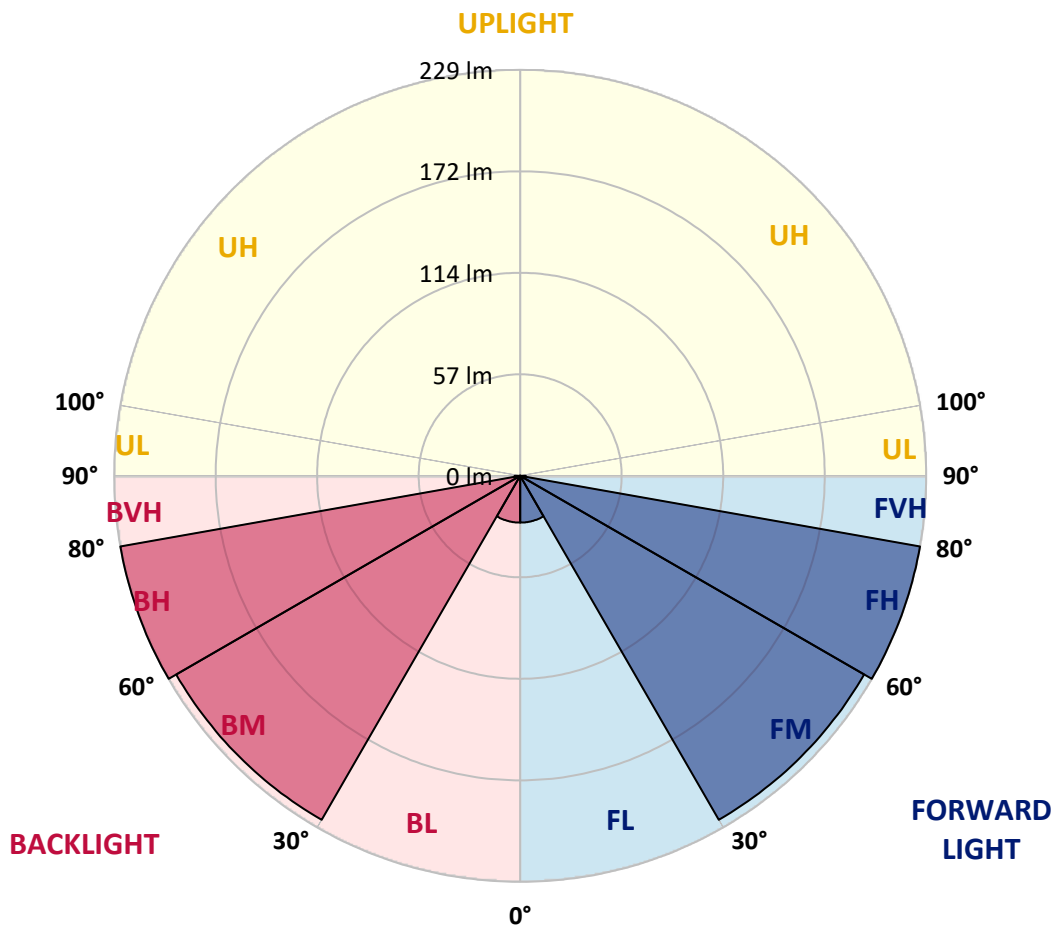
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	26.4	2.7			
FM (30°-60°)	223.8	23.2			
FH (60°-80°)	228.7	23.7			G0/660
FVH (80°-90°)	3.2	0.3			G0/10
BL (0°-30°)	26.4	2.7	B0/110		
BM (30°-60°)	223.8	23.2	B1/1000		
BH (60°-80°)	228.7	23.7	B1/500		G0/660
BVH (80°-90°)	3.2	0.3			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G0**

Type V Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1
2.5°	39.6	35.1	34.8	32.1	31.5	32.4	31.5	31.5	35.1	35.4	39.3
5°	48.0	43.8	43.2	38.1	33.0	31.2	33.3	37.2	43.2	44.4	48.9
7.5°	53.7	49.8	48.0	42.9	37.5	34.2	37.5	42.9	48.0	49.2	52.8
10°	51.6	50.1	48.3	43.8	44.4	45.0	44.1	44.4	49.5	50.1	51.6
12.5°	51.6	51.6	52.2	51.0	51.9	53.7	52.8	51.3	53.1	52.8	54.6
15°	55.2	55.5	55.8	55.8	57.0	59.1	57.9	56.7	57.3	56.1	56.1
17.5°	59.7	60.9	59.7	59.7	61.5	62.7	61.5	60.3	60.0	61.8	60.6
20°	64.8	65.1	62.4	60.9	63.6	64.5	64.2	61.5	63.3	64.5	64.2
22.5°	69.8	69.2	65.1	62.4	64.5	65.4	63.6	62.7	66.0	69.8	69.8
25°	72.2	73.7	69.8	68.0	67.1	67.7	68.0	68.0	69.8	73.7	74.0
27.5°	78.8	78.2	71.3	73.1	71.6	68.3	71.9	73.4	71.3	78.2	80.0
30°	85.7	86.6	76.7	78.8	78.2	77.0	78.8	78.8	77.9	87.5	84.5
32.5°	95.6	93.8	86.3	83.9	83.9	85.1	82.7	84.2	88.4	96.5	97.4
35°	103.4	105.2	94.7	92.0	90.8	87.5	91.1	92.3	96.5	106.7	105.8
37.5°	122.6	117.2	106.4	102.2	99.8	100.7	101.9	103.7	108.2	121.1	123.2
40°	135.2	133.4	120.2	115.4	107.3	111.5	109.7	116.9	123.8	138.2	142.4
42.5°	156.2	152.3	138.2	132.5	124.4	118.1	124.1	132.5	143.0	158.9	162.5
45°	179.0	169.4	157.7	151.1	141.2	139.7	142.4	153.5	158.6	175.1	182.6
47.5°	203.2	192.8	179.9	170.9	160.1	167.3	163.7	174.2	184.1	195.8	207.4
50°	229.6	218.5	205.9	195.5	190.1	191.3	192.5	198.8	209.8	222.4	233.5
52.5°	265.0	250.6	235.0	228.1	231.7	223.6	233.5	229.6	238.0	253.9	266.5
55°	318.4	304.0	284.8	277.6	277.3	272.2	279.4	273.1	277.9	295.9	314.5
57.5°	374.7	352.2	337.2	334.0	338.4	336.9	337.5	334.9	340.8	357.0	377.4
60°	416.7	392.1	388.5	391.2	415.2	423.3	413.1	393.0	393.0	400.5	427.2
62.5°	417.6	391.8	397.2	416.7	492.8	542.6	491.6	423.0	404.4	396.3	425.7
65°	355.2	328.6	350.4	404.4	523.4	633.4	528.8	400.8	360.0	335.5	361.8
67.5°	241.0	221.8	249.4	320.2	470.0	623.5	472.1	316.6	250.0	214.0	239.5
70°	122.6	111.8	136.7	187.7	325.0	487.1	324.1	189.8	135.2	112.4	125.6
72.5°	52.8	49.2	59.7	86.9	170.3	285.7	173.3	85.1	54.3	46.8	51.9
75°	23.7	22.8	25.8	32.4	62.7	116.3	62.4	29.1	24.0	23.1	25.8
77.5°	16.8	16.2	17.4	18.6	23.1	32.1	24.0	18.6	16.8	16.5	17.4
80°	11.7	11.4	12.6	14.1	14.7	15.6	15.3	14.7	13.2	11.4	12.0
82.5°	5.7	6.0	9.0	9.9	10.5	9.9	11.1	10.5	9.3	6.6	6.6
85°	3.0	3.3	5.7	6.0	6.3	4.8	6.0	6.3	6.0	3.9	3.6
87.5°	1.2	1.8	2.1	2.1	2.1	1.2	2.1	2.7	2.4	2.1	1.2
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)