

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: P366710

Luminaire Tested: **MSA-SA1A-830-U-5NQ**

Issue Date: 12/2/2019

**Test Information**

Test Method: LM-79-08  
Report Number: P366710  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-5)  
Test Lab: INNOVATION CENTER  
Issue Date: 12/2/2019  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: MSA-SA1A-830-U-5NQ  
Description: MESA POST TOP DECORATIVE LUMINAIRE. (1) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE V NARROW OPTICS.  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3286 lumens  
Efficiency: N/A  
Efficacy: 96.6 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type V - Short  
BUG Rating: B2 - U0 - G0

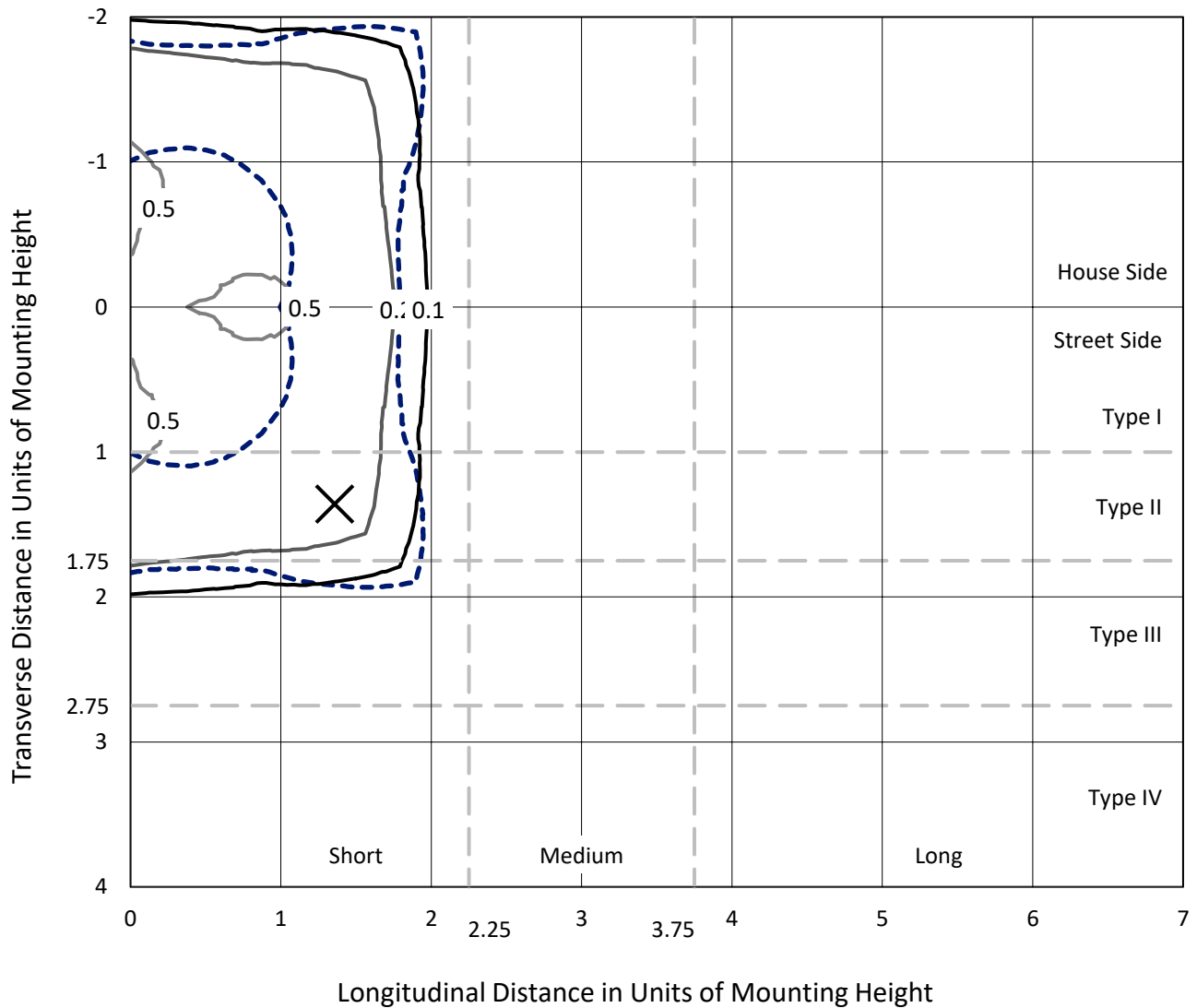
Input Watts (W): 34  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

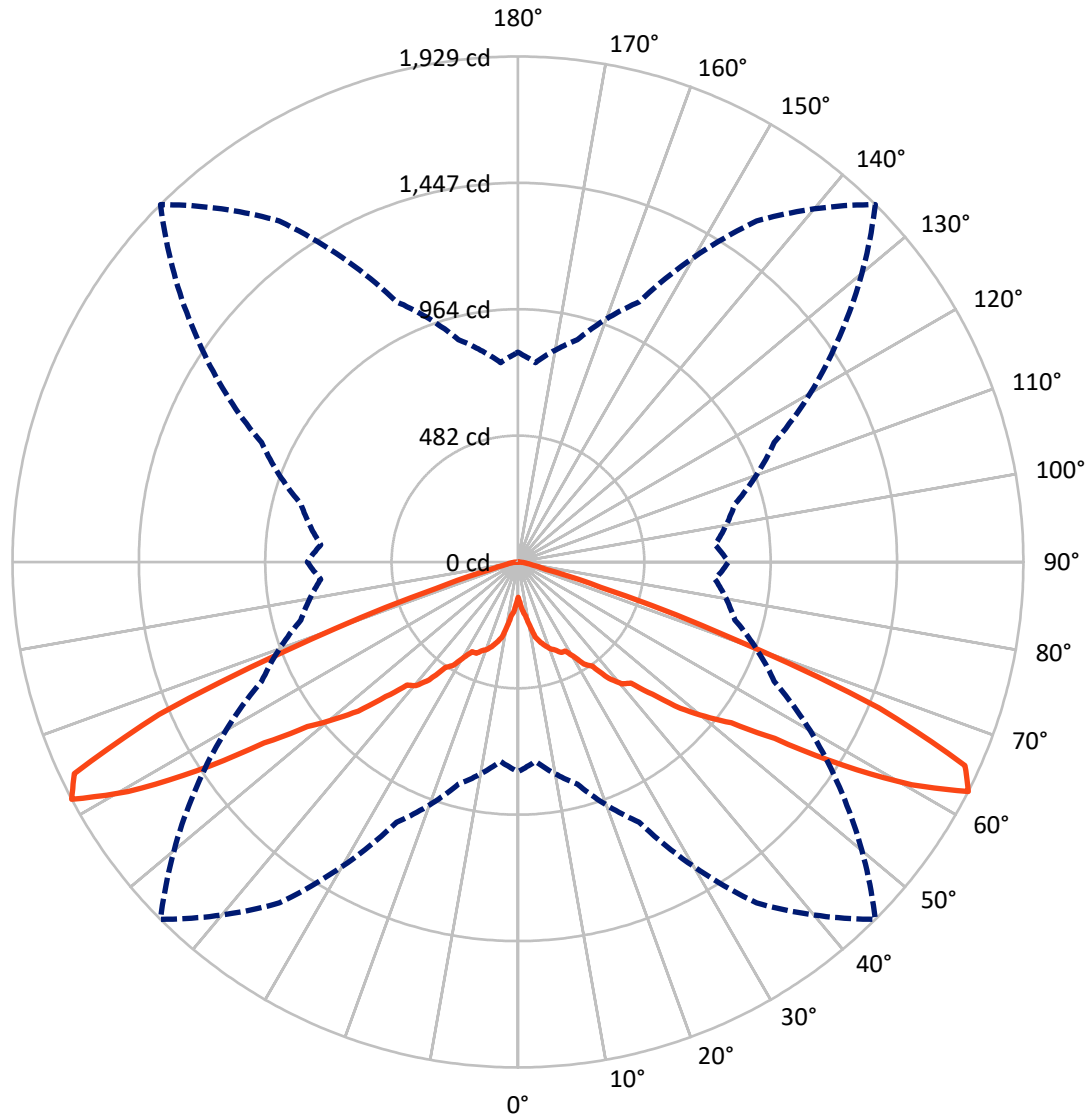
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 0.6 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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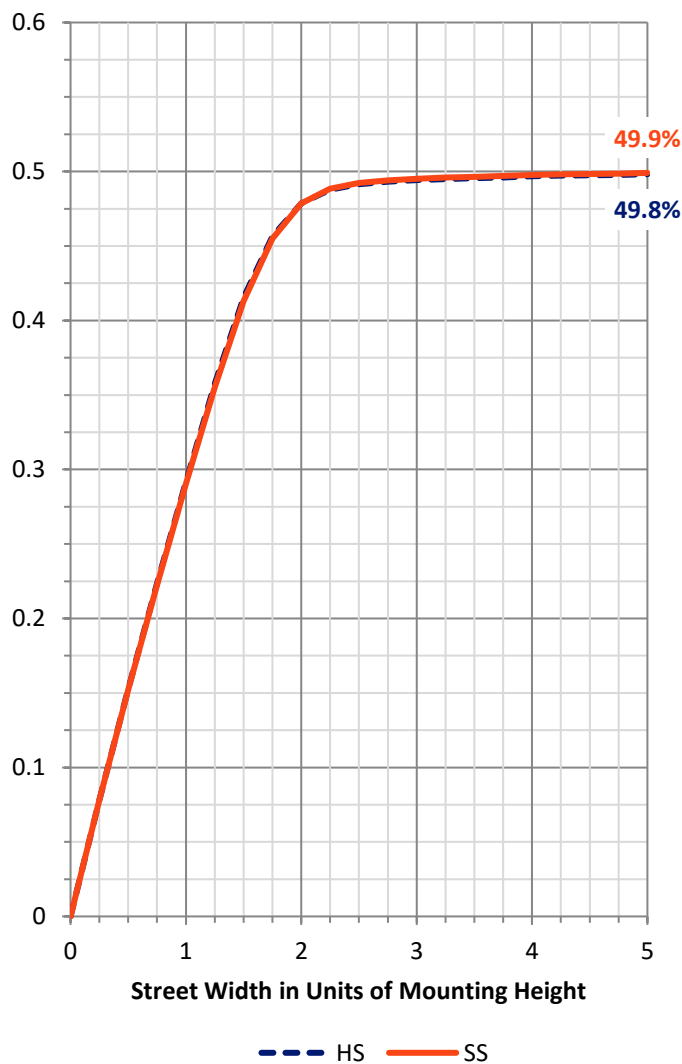
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1643.0	0.0	1643.0
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	1643.0	0.0	1643.0
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	3286.0	0.0	3286.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	20.2	0.6
10°-20°	89.3	2.7
20°-30°	187.1	5.7
30°-40°	352.6	10.7
40°-50°	639.9	19.5
50°-60°	1081.3	32.9
60°-70°	808.3	24.6
70°-80°	90.4	2.8
80°-90°	16.8	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°	3286.0	100.0
0°-180°	3286.0	100.0

**Coefficient of Utilization**



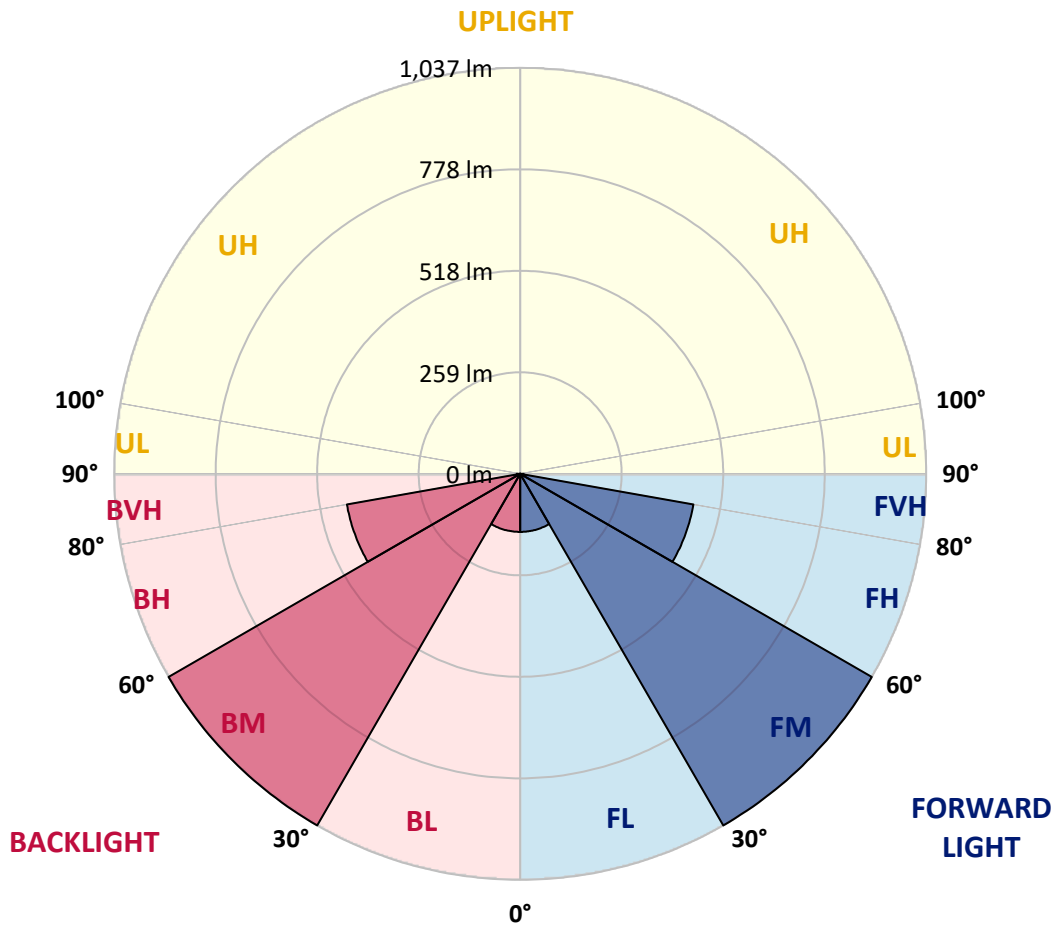
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	148.3	4.5			
FM (30°-60°)	1036.9	31.6			
FH (60°-80°)	449.4	13.7			G0/660
FVH (80°-90°)	8.4	0.3			G0/10
BL (0°-30°)	148.3	4.5	B1/500		
BM (30°-60°)	1036.9	31.6	B2/2500		
BH (60°-80°)	449.4	13.7	B1/500		G0/660
BVH (80°-90°)	8.4	0.3			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G0**

Type V Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	134.4	134.4	134.4	134.4	134.4	134.4	134.4	134.4	134.4	134.4	134.4
2.5°	163.4	160.4	150.1	153.7	157.5	156.9	156.0	153.2	150.7	161.2	163.4
5°	208.3	201.6	198.0	195.0	194.4	187.2	197.1	196.0	199.3	204.9	210.4
7.5°	244.1	237.8	228.3	226.3	215.5	207.5	216.0	226.6	229.9	240.2	246.4
10°	257.2	251.7	253.5	244.5	244.0	246.3	244.4	246.8	255.6	254.4	259.0
12.5°	286.6	287.6	281.9	279.7	284.2	294.1	285.7	282.7	280.6	289.7	292.5
15°	314.2	319.6	310.4	309.0	307.1	316.3	307.2	311.6	315.5	317.4	316.3
17.5°	353.2	353.5	343.2	326.7	332.9	335.8	331.8	324.2	342.5	351.7	352.3
20°	378.9	379.8	359.5	333.8	351.2	353.9	351.9	336.0	360.3	375.7	375.0
22.5°	406.5	403.3	375.8	357.1	363.2	364.8	360.6	358.5	375.7	403.6	399.5
25°	425.1	431.0	403.6	391.6	386.4	382.6	388.1	389.2	406.7	432.1	418.0
27.5°	469.5	459.3	416.4	421.0	409.9	384.6	408.7	421.9	418.2	461.5	472.0
30°	508.9	509.2	449.1	457.7	437.2	416.7	442.8	461.9	457.2	512.7	502.7
32.5°	559.3	561.2	505.3	482.1	468.2	464.3	461.1	482.2	511.4	556.3	557.2
35°	613.8	629.8	553.9	529.4	505.7	488.6	507.1	536.4	555.3	627.1	614.4
37.5°	719.8	692.8	630.6	584.6	569.5	562.7	572.4	589.4	630.5	692.4	714.2
40°	782.5	775.0	690.4	651.9	593.6	611.8	606.4	652.9	686.9	779.3	781.3
42.5°	878.3	840.6	764.6	715.6	663.2	631.7	665.1	727.5	768.6	846.6	883.5
45°	954.1	905.7	847.0	809.9	743.7	720.3	732.3	812.3	863.8	917.4	965.9
47.5°	1037.9	985.5	926.9	860.8	796.2	834.3	813.1	883.4	933.7	1010.5	1056.0
50°	1143.3	1085.3	1010.1	955.6	912.8	926.2	922.8	973.0	1035.0	1105.1	1156.7
52.5°	1259.3	1193.7	1121.2	1070.6	1052.5	1019.4	1062.7	1083.3	1129.0	1193.2	1253.7
55°	1340.5	1274.8	1231.0	1247.3	1242.5	1189.3	1227.2	1229.4	1207.3	1230.5	1291.4
57.5°	1327.9	1265.2	1259.2	1320.8	1412.9	1464.4	1405.7	1279.5	1196.9	1186.1	1250.6
60°	1161.1	1107.5	1162.5	1301.6	1569.9	1726.6	1500.6	1241.7	1105.6	1049.3	1111.6
62.5°	800.1	763.9	878.1	1095.4	1588.7	1928.8	1497.2	1079.0	857.5	755.3	803.7
65°	379.3	366.2	462.6	694.5	1323.4	1874.8	1308.0	730.1	493.6	394.2	405.2
67.5°	142.6	136.1	169.8	306.8	833.5	1487.0	879.3	360.2	190.9	148.4	153.5
70°	81.0	76.3	80.7	111.9	335.6	842.2	379.3	123.5	81.1	73.9	78.7
72.5°	63.8	60.2	60.8	67.6	115.8	330.6	122.7	70.5	59.0	56.0	60.3
75°	52.7	49.5	49.3	53.1	67.5	107.4	69.4	53.9	47.7	45.6	49.1
77.5°	41.8	40.0	40.5	43.4	48.4	60.0	50.3	43.6	39.2	36.6	39.0
80°	30.6	30.3	32.5	35.2	36.1	40.4	37.7	35.2	31.3	27.7	28.6
82.5°	20.1	20.2	24.2	26.3	25.9	25.8	27.0	26.9	23.4	18.3	18.3
85°	11.5	11.8	14.8	16.6	16.3	13.0	17.1	17.2	15.0	11.1	10.7
87.5°	3.7	4.7	6.4	6.8	6.6	3.6	6.6	7.2	6.6	4.7	4.1
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)