

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: P596762

Luminaire Tested: **MSA-SA4B-827-U-5NQ**

Issue Date: 5/27/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P596762  
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-SA4B-827-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: 14615 lumens  
Efficiency: N/A  
Efficacy: 85.5 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type V - Short  
BUG Rating: B3 - U0 - G2

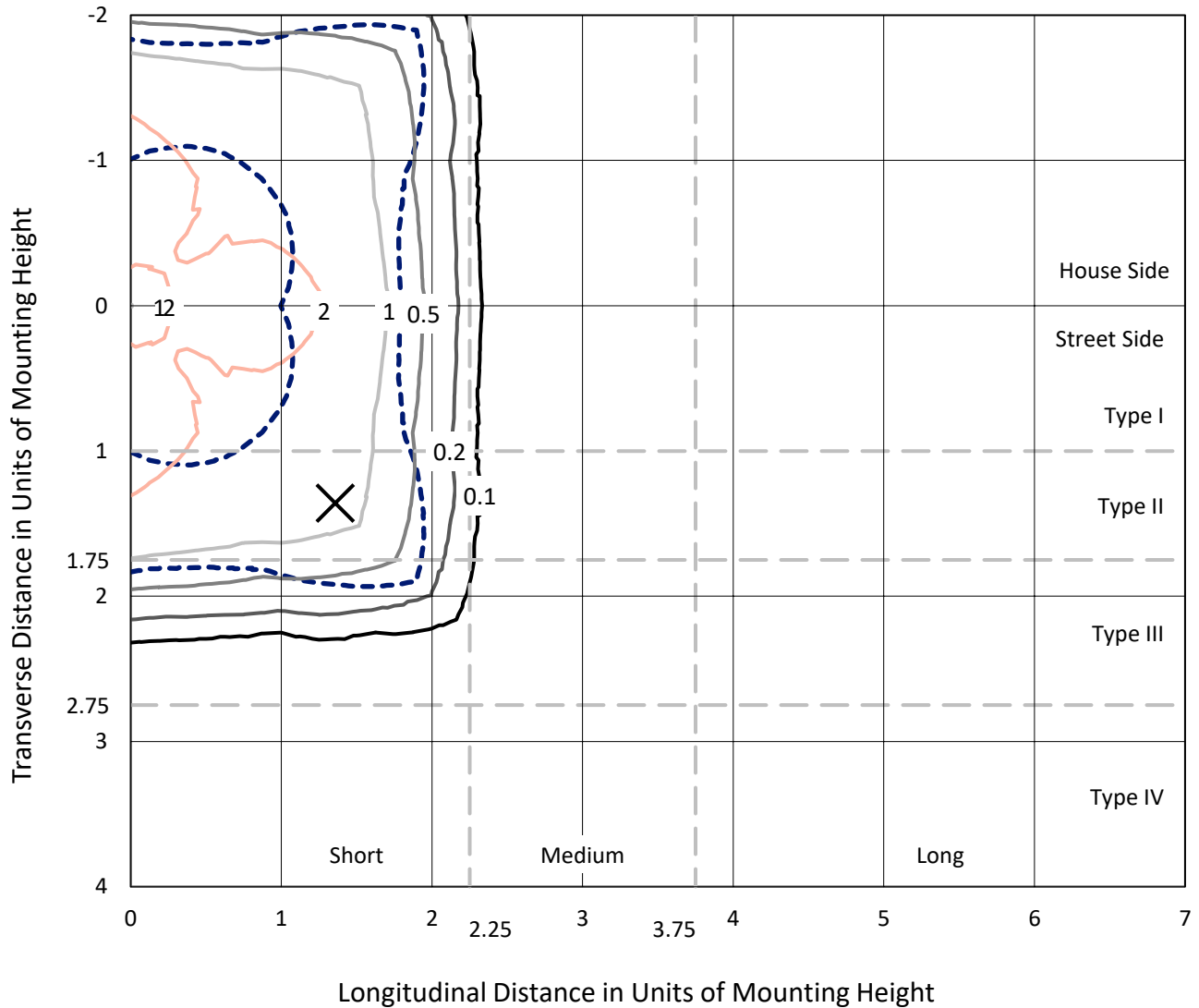
Input Watts (W): 171  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

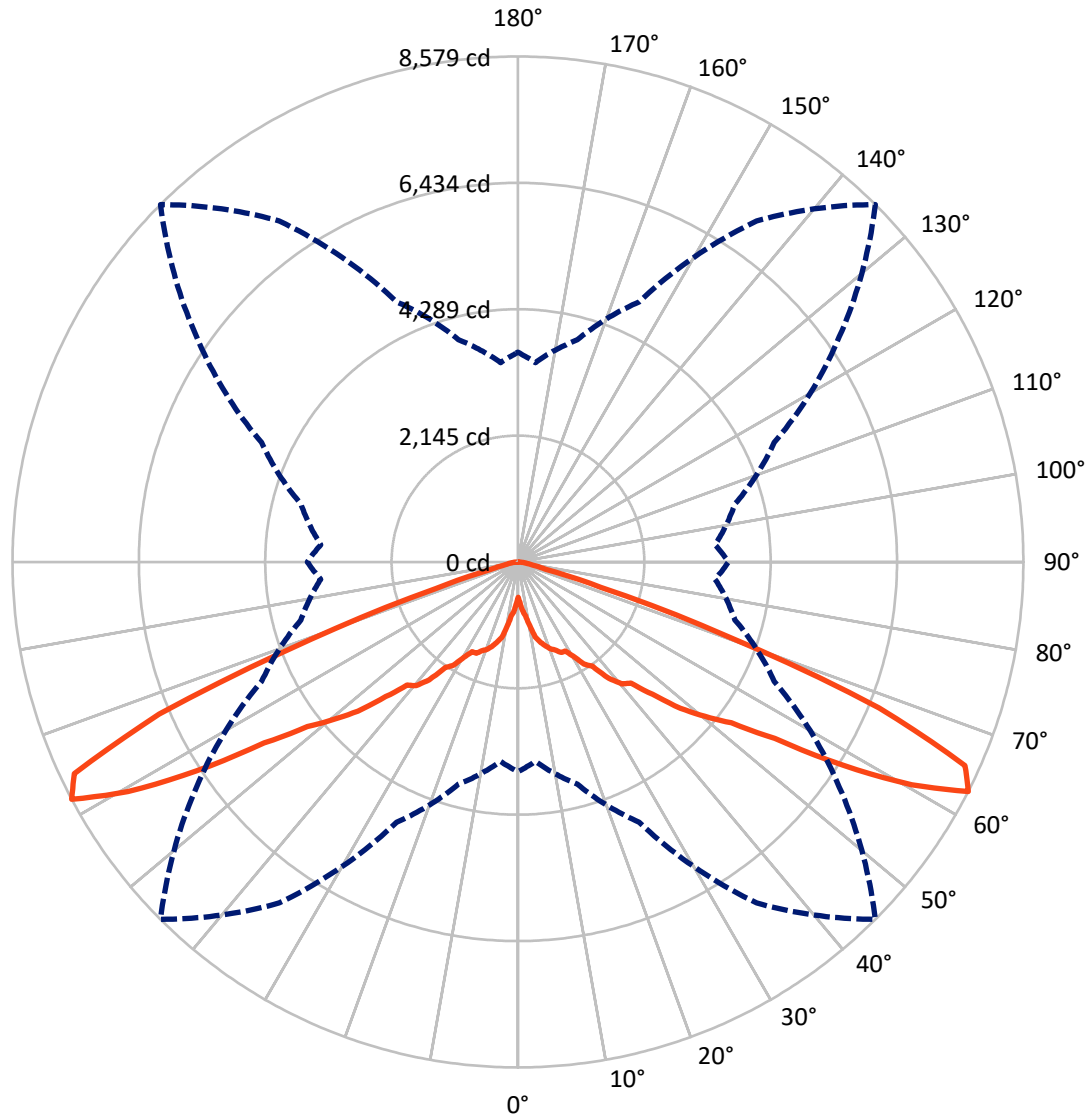
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.5 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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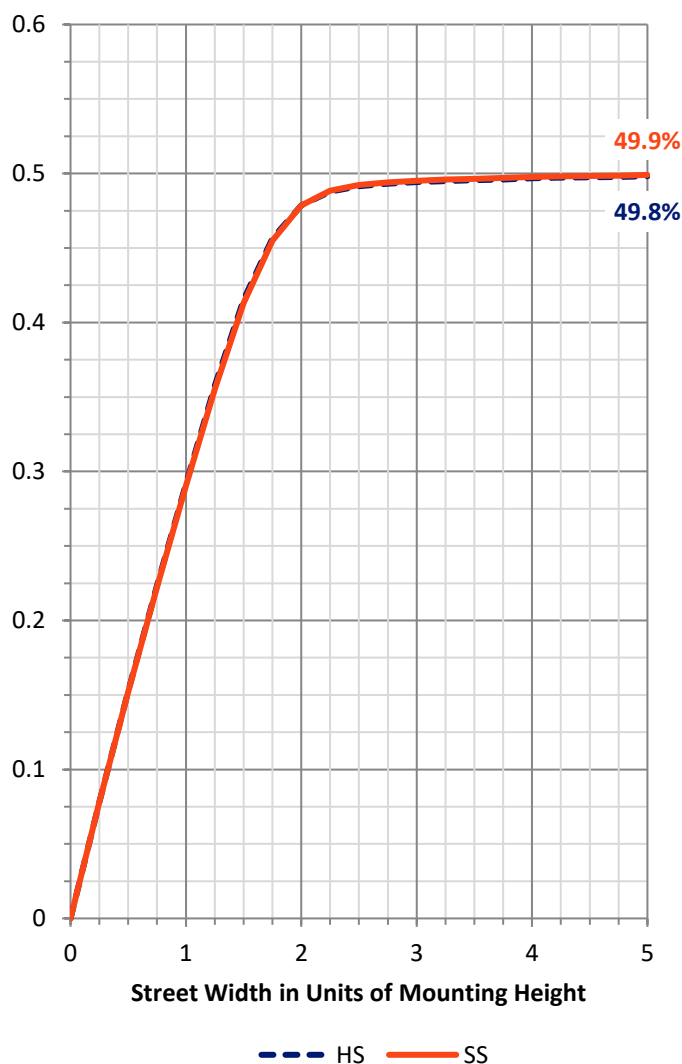
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	7307.5	0.0	7307.5
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	7307.5	0.0	7307.5
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	14615.0	0.0	14615.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	90.1	0.6
10°-20°	397.1	2.7
20°-30°	832.3	5.7
30°-40°	1568.2	10.7
40°-50°	2846.2	19.5
50°-60°	4809.1	32.9
60°-70°	3595.1	24.6
70°-80°	402.2	2.8
80°-90°	74.8	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°	14615.0	100.0
0°-180°	14615.0	100.0

**Coefficient of Utilization**

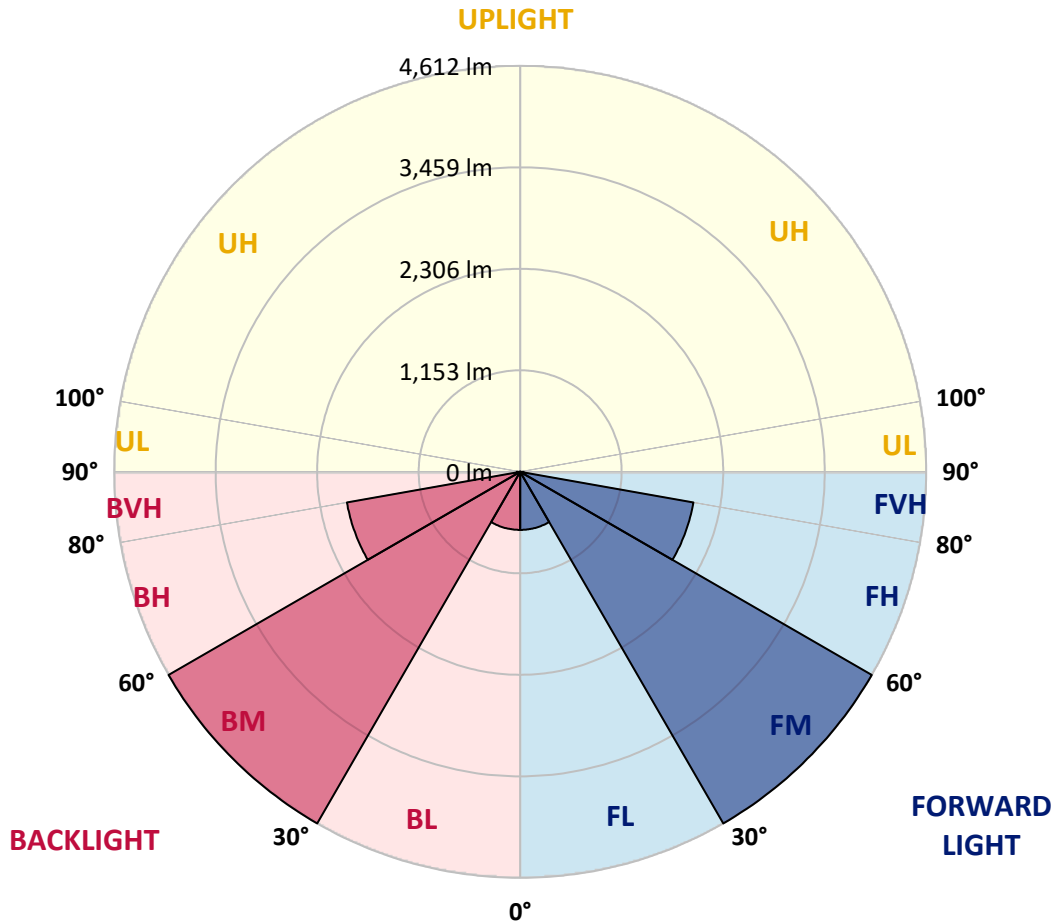


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	659.7	4.5			
FM (30°-60°)	4611.7	31.6			
FH (60°-80°)	1998.6	13.7			G2/5000
FVH (80°-90°)	37.4	0.3			G1/100
BL (0°-30°)	659.7	4.5	B2/1000		
BM (30°-60°)	4611.7	31.6	B3/5000		
BH (60°-80°)	1998.6	13.7	B3/2500		G2/5000
BVH (80°-90°)	37.4	0.3			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G2**  
 Type V Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	597.6	597.6	597.6	597.6	597.6	597.6	597.6	597.6	597.6	597.6	597.6
2.5°	726.6	713.5	667.7	683.8	700.4	698.1	693.9	681.4	670.1	717.1	726.6
5°	926.4	896.6	880.6	867.5	864.5	832.4	876.4	871.7	886.5	911.5	935.9
7.5°	1085.7	1057.8	1015.6	1006.7	958.5	922.8	960.9	1007.8	1022.7	1068.5	1095.8
10°	1144.0	1119.6	1127.4	1087.5	1085.1	1095.2	1086.9	1097.6	1136.9	1131.5	1151.7
12.5°	1274.8	1279.0	1254.0	1243.9	1264.1	1308.1	1270.7	1257.6	1248.1	1288.5	1301.0
15°	1397.3	1421.7	1380.7	1374.1	1365.8	1406.8	1366.4	1386.0	1403.2	1411.6	1406.8
17.5°	1570.9	1572.1	1526.3	1453.2	1480.5	1493.6	1475.8	1441.9	1523.4	1564.4	1566.8
20°	1685.1	1689.2	1598.9	1484.7	1562.0	1573.9	1565.0	1494.2	1602.4	1670.8	1667.8
22.5°	1808.2	1793.9	1671.4	1588.2	1615.5	1622.7	1603.6	1594.7	1670.8	1795.1	1776.7
25°	1890.8	1917.0	1795.1	1741.6	1718.4	1701.7	1726.1	1730.9	1808.8	1921.7	1859.3
27.5°	2088.2	2043.0	1852.2	1872.4	1823.0	1710.7	1817.7	1876.5	1859.9	2052.5	2099.5
30°	2263.6	2264.8	1997.2	2035.9	1944.3	1853.4	1969.3	2054.3	2033.5	2280.3	2235.7
32.5°	2487.8	2496.1	2247.6	2144.1	2082.3	2065.0	2050.8	2144.7	2274.3	2474.1	2478.3
35°	2729.8	2801.1	2463.4	2354.6	2249.4	2173.2	2255.3	2385.5	2469.9	2789.2	2732.8
37.5°	3201.3	3081.2	2804.7	2600.2	2533.0	2502.7	2546.1	2621.6	2804.1	3079.4	3176.3
40°	3480.2	3446.9	3070.5	2899.2	2640.0	2720.9	2697.1	2904.0	3055.0	3465.9	3474.8
42.5°	3906.5	3738.8	3400.5	3182.9	2949.8	2809.5	2958.1	3235.8	3418.3	3765.6	3929.7
45°	4243.6	4028.4	3767.4	3602.1	3307.7	3203.7	3257.2	3612.8	3841.7	4080.1	4296.0
47.5°	4616.4	4383.4	4122.3	3828.6	3541.4	3710.9	3616.3	3929.1	4152.7	4494.5	4696.7
50°	5085.0	4826.9	4492.8	4250.2	4059.9	4119.4	4104.5	4327.5	4603.4	4914.9	5144.4
52.5°	5601.1	5309.1	4986.9	4761.5	4681.2	4533.8	4726.4	4818.0	5021.4	5306.8	5576.1
55°	5962.0	5670.1	5475.0	5547.6	5526.2	5289.5	5458.4	5467.9	5369.8	5472.7	5743.8
57.5°	5906.1	5627.3	5600.5	5874.6	6284.3	6513.2	6252.2	5690.9	5323.4	5275.3	5562.4
60°	5164.1	4925.6	5170.6	5789.0	6982.3	7679.2	6674.3	5522.6	4917.3	4667.0	4944.1
62.5°	3558.7	3397.5	3905.3	4872.1	7066.2	8578.8	6658.9	4799.0	3813.7	3359.5	3574.7
65°	1686.9	1628.6	2057.3	3088.9	5885.9	8338.6	5817.5	3247.1	2195.2	1753.5	1802.2
67.5°	634.4	605.3	755.1	1364.6	3707.3	6613.7	3910.7	1601.8	849.1	660.0	682.6
70°	360.3	339.5	359.1	497.7	1492.4	3746.0	1686.9	549.4	360.9	328.8	350.2
72.5°	283.6	267.6	270.5	300.9	514.9	1470.4	545.8	313.4	262.2	249.1	268.2
75°	234.3	220.0	219.4	236.1	300.3	477.5	308.6	239.6	212.3	202.8	218.2
77.5°	186.1	177.8	180.2	193.2	215.2	267.0	223.6	193.8	174.2	162.9	173.6
80°	136.2	135.0	144.5	156.4	160.5	179.6	167.7	156.4	139.1	123.1	127.2
82.5°	89.2	89.8	107.6	117.1	115.4	114.8	120.1	119.5	104.1	81.5	81.5
85°	51.1	52.3	66.0	73.7	72.5	57.7	76.1	76.7	66.6	49.4	47.6
87.5°	16.6	20.8	28.5	30.3	29.1	16.1	29.1	32.1	29.1	20.8	18.4
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)