

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: P368030

Luminaire Tested: **MSA-SA3C-830-U-5NQ**

Issue Date: 12/2/2019

**Test Information**

Test Method: LM-79-08  
Report Number: P368030  
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-SA3C-830-U-5NQ  
Description: MESA POST TOP DECORATIVE LUMINAIRE. (3) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE V NARROW OPTICS.  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 14803 lumens  
Efficiency: N/A  
Efficacy: 89.2 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type V - Short  
BUG Rating: B3 - U0 - G2

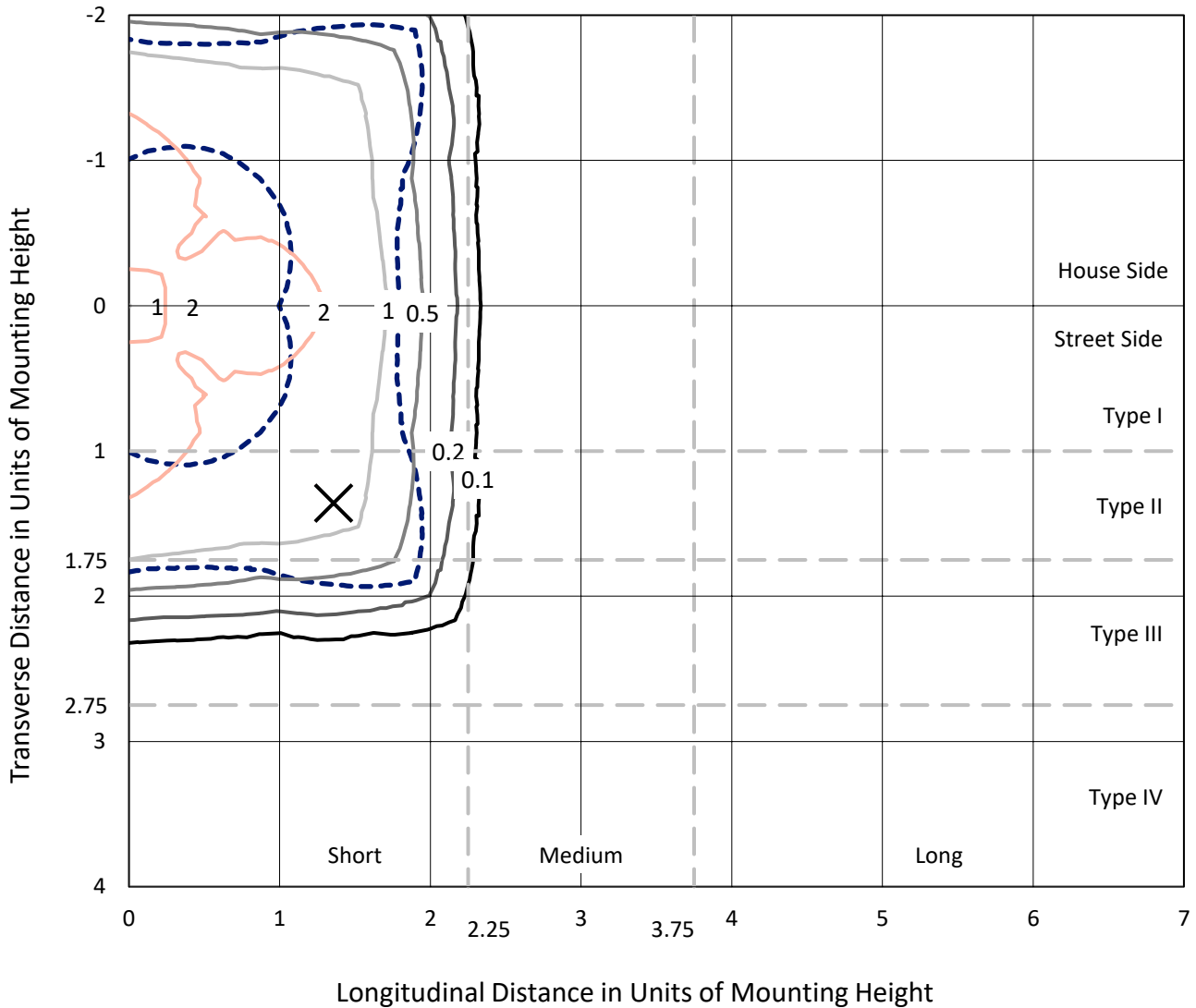
Input Watts (W): 166  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

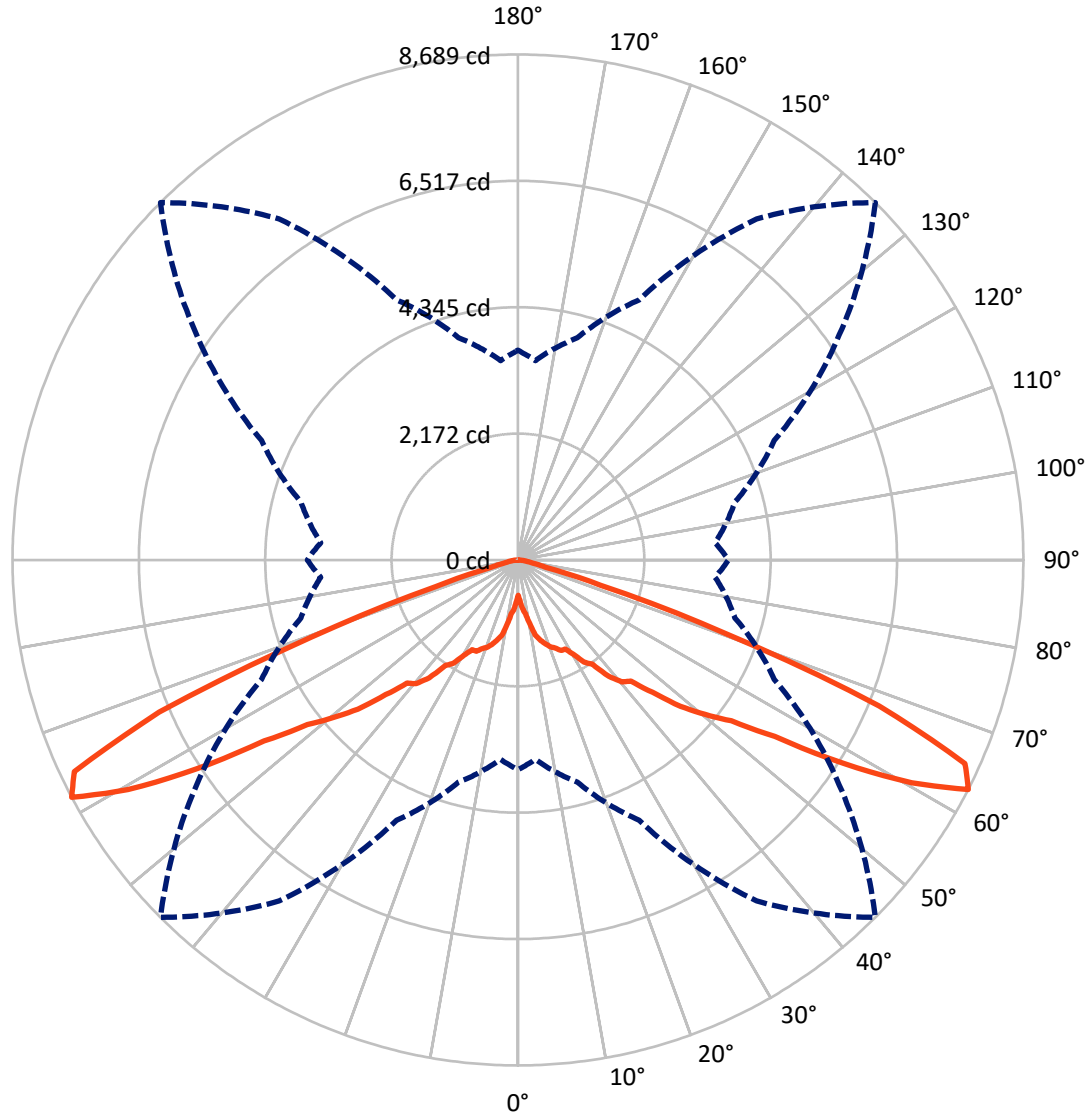
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.6 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	7401.5	0.0	7401.5
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	7401.5	0.0	7401.5
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	14803.0	0.0	14803.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	91.2	0.6
10°-20°	402.2	2.7
20°-30°	843.0	5.7
30°-40°	1588.3	10.7
40°-50°	2882.8	19.5
50°-60°	4870.9	32.9
60°-70°	3641.3	24.6
70°-80°	407.4	2.8
80°-90°	75.8	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°	14803.0	100.0
0°-180°	14803.0	100.0

**Coefficient of Utilization**



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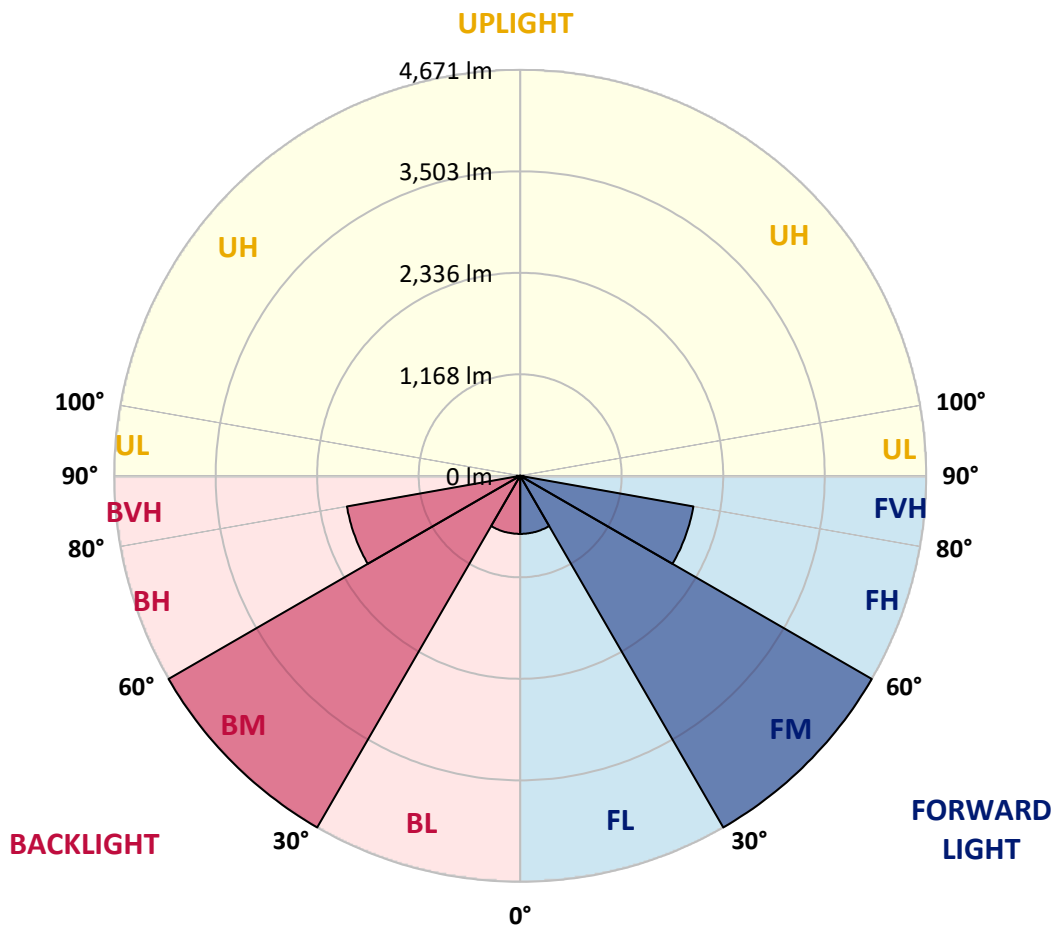
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	668.2	4.5			
FM (30°-60°)	4671.0	31.6			
FH (60°-80°)	2024.3	13.7			G2/5000
FVH (80°-90°)	37.9	0.3			G1/100
BL (0°-30°)	668.2	4.5	B2/1000		
BM (30°-60°)	4671.0	31.6	B3/5000		
BH (60°-80°)	2024.3	13.7	B3/2500		G2/5000
BVH (80°-90°)	37.9	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°	605.3	605.3	605.3	605.3	605.3	605.3	605.3	605.3	605.3	605.3	605.3
2.5°	735.9	722.7	676.3	692.6	709.4	707.0	702.8	690.2	678.7	726.3	735.9
5°	938.3	908.2	891.9	878.7	875.7	843.1	887.7	882.9	897.9	923.2	947.9
7.5°	1099.7	1071.4	1028.6	1019.6	970.8	934.7	973.2	1020.8	1035.9	1082.2	1109.9
10°	1158.7	1134.0	1141.9	1101.5	1099.1	1109.3	1100.9	1111.7	1151.5	1146.1	1166.5
12.5°	1291.2	1295.4	1270.1	1259.9	1280.4	1324.9	1287.0	1273.7	1264.1	1305.1	1317.7
15°	1415.3	1440.0	1398.4	1391.8	1383.4	1424.9	1384.0	1403.8	1421.3	1429.7	1424.9
17.5°	1591.1	1592.3	1546.0	1471.9	1499.6	1512.8	1494.8	1460.4	1542.9	1584.5	1586.9
20°	1706.8	1711.0	1619.4	1503.8	1582.1	1594.1	1585.1	1513.4	1623.0	1692.3	1689.3
22.5°	1831.4	1817.0	1692.9	1608.6	1636.3	1643.5	1624.3	1615.2	1692.3	1818.2	1799.5
25°	1915.1	1941.6	1818.2	1764.0	1740.5	1723.6	1748.3	1753.1	1832.0	1946.5	1883.2
27.5°	2115.1	2069.3	1876.0	1896.5	1846.5	1732.7	1841.1	1900.7	1883.8	2078.9	2126.5
30°	2292.7	2293.9	2022.9	2062.1	1969.3	1877.2	1994.6	2080.8	2059.7	2309.6	2264.4
32.5°	2519.8	2528.2	2276.5	2171.7	2109.1	2091.6	2077.1	2172.3	2303.6	2505.9	2510.2
35°	2764.9	2837.2	2495.1	2384.9	2278.3	2201.2	2284.3	2416.2	2501.7	2825.1	2767.9
37.5°	3242.5	3120.8	2840.8	2633.6	2565.6	2534.8	2578.8	2655.3	2840.2	3119.0	3217.2
40°	3524.9	3491.2	3110.0	2936.5	2674.0	2755.9	2731.8	2941.4	3094.3	3510.5	3519.5
42.5°	3956.7	3786.9	3444.2	3223.8	2987.7	2845.6	2996.2	3277.4	3462.3	3814.0	3980.2
45°	4298.2	4080.2	3815.8	3648.4	3350.3	3244.9	3299.1	3659.2	3891.1	4132.6	4351.2
47.5°	4675.8	4439.7	4175.4	3877.8	3587.0	3758.6	3662.8	3979.6	4206.1	4552.4	4757.1
50°	5150.4	4889.0	4550.6	4304.8	4112.1	4172.3	4157.3	4383.1	4662.6	4978.1	5210.6
52.5°	5673.1	5377.4	5051.0	4822.8	4741.5	4592.1	4787.2	4880.0	5086.0	5375.0	5647.8
55°	6038.7	5743.0	5545.5	5618.9	5597.3	5357.6	5528.6	5538.2	5438.9	5543.1	5817.7
57.5°	5982.1	5699.6	5672.5	5950.2	6365.1	6597.0	6332.6	5764.1	5391.9	5343.1	5634.0
60°	5230.5	4989.0	5237.1	5863.4	7072.2	7778.0	6760.2	5593.6	4980.6	4727.0	5007.7
62.5°	3604.4	3441.2	3955.5	4934.8	7157.1	8689.2	6744.5	4860.7	3862.8	3402.7	3620.7
65°	1708.6	1649.5	2083.8	3128.7	5961.6	8445.9	5892.4	3288.9	2223.5	1776.0	1825.4
67.5°	642.6	613.1	764.8	1382.1	3755.0	6698.8	3961.0	1622.4	860.0	668.5	691.4
70°	365.0	343.9	363.8	504.1	1511.6	3794.1	1708.6	556.5	365.6	333.0	354.7
72.5°	287.3	271.0	274.0	304.7	521.5	1489.3	552.9	317.4	265.6	252.3	271.6
75°	237.3	222.8	222.2	239.1	304.1	483.6	312.6	242.7	215.0	205.4	221.0
77.5°	188.5	180.1	182.5	195.7	218.0	270.4	226.4	196.3	176.5	165.0	175.9
80°	137.9	136.7	146.3	158.4	162.6	181.9	169.8	158.4	140.9	124.7	128.9
82.5°	90.3	90.9	109.0	118.6	116.8	116.2	121.7	121.1	105.4	82.5	82.5
85°	51.8	53.0	66.8	74.7	73.5	58.4	77.1	77.7	67.5	50.0	48.2
87.5°	16.9	21.1	28.9	30.7	29.5	16.3	29.5	32.5	29.5	21.1	18.7
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)