

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: P368426

Luminaire Tested: **MSA-SA4B-830-U-5NQ**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P368426
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-SA4B-830-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: 15798 lumens
Efficiency: N/A
Efficacy: 92.4 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type V - Short
BUG Rating: B3 - U0 - G2

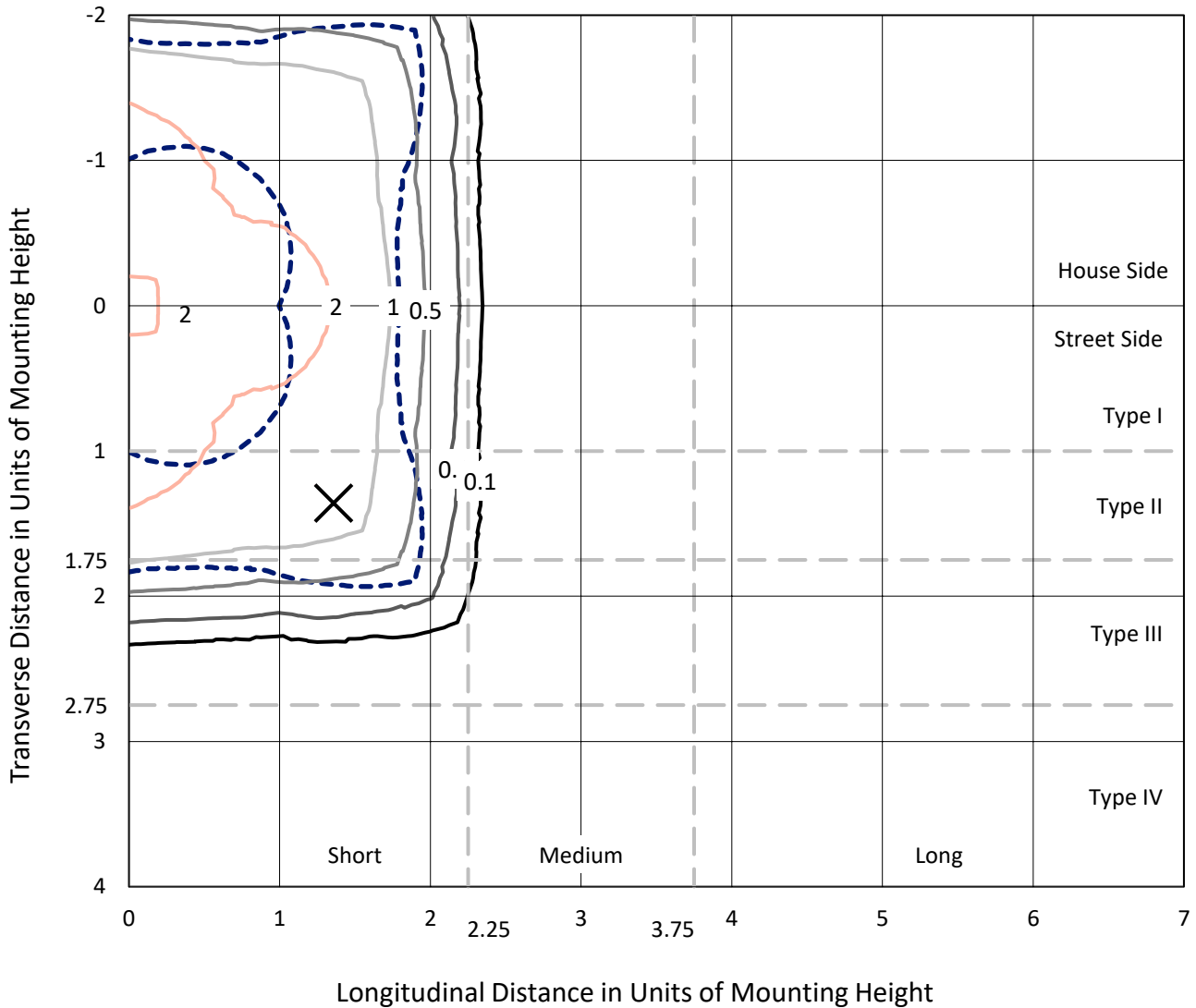
Input Watts (W): 171
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

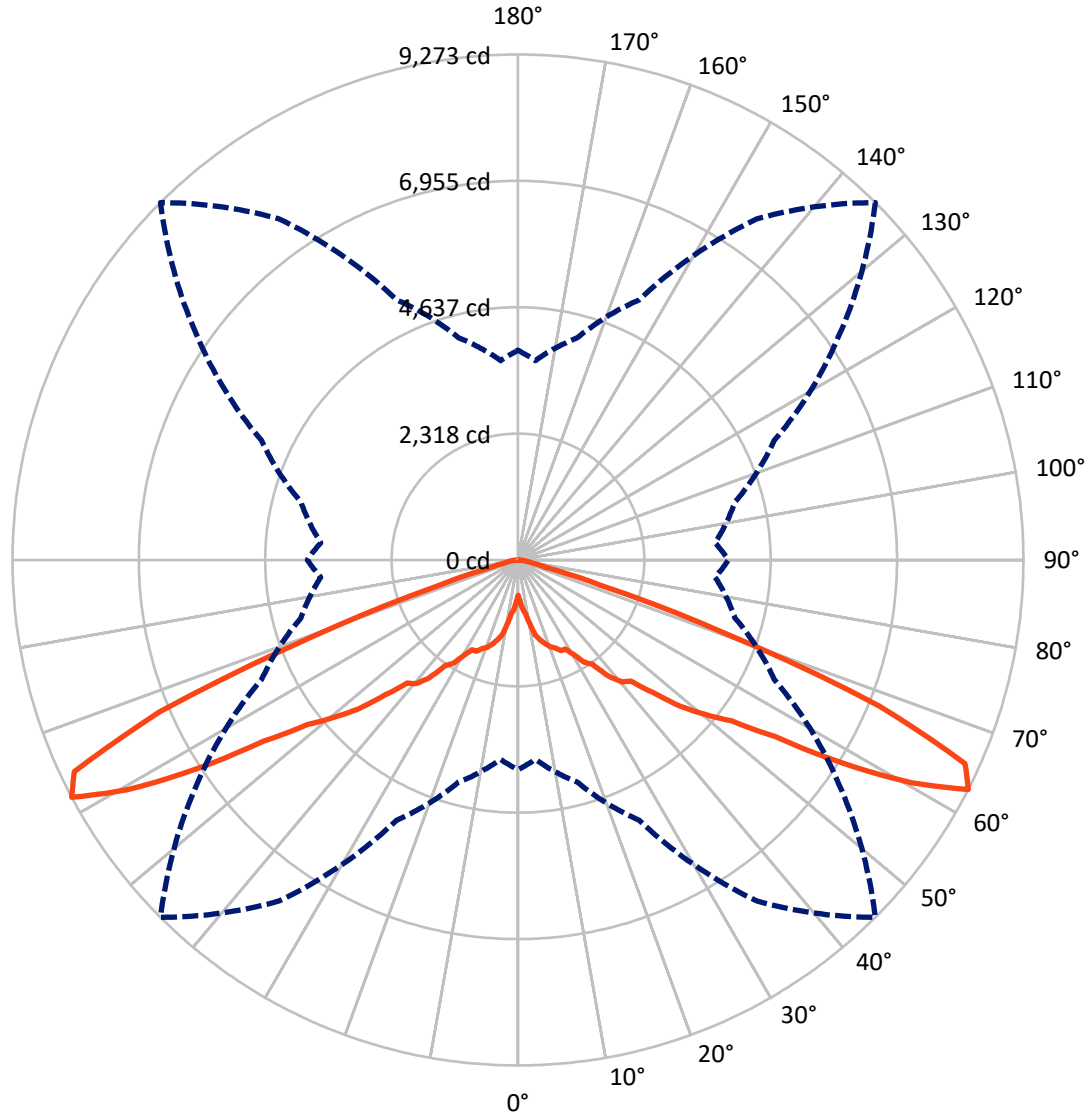
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.7 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	7899.0	0.0	7899.0
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	7899.0	0.0	7899.0
	% Fixture	50.0	0.0	50.0
Total	Lumens	15798.0	0.0	15798.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	97.4	0.6
10°-20°	429.2	2.7
20°-30°	899.7	5.7
30°-40°	1695.1	10.7
40°-50°	3076.6	19.5
50°-60°	5198.3	32.9
60°-70°	3886.1	24.6
70°-80°	434.7	2.8
80°-90°	80.9	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°	15798.0	100.0
0°-180°	15798.0	100.0

Coefficient of Utilization



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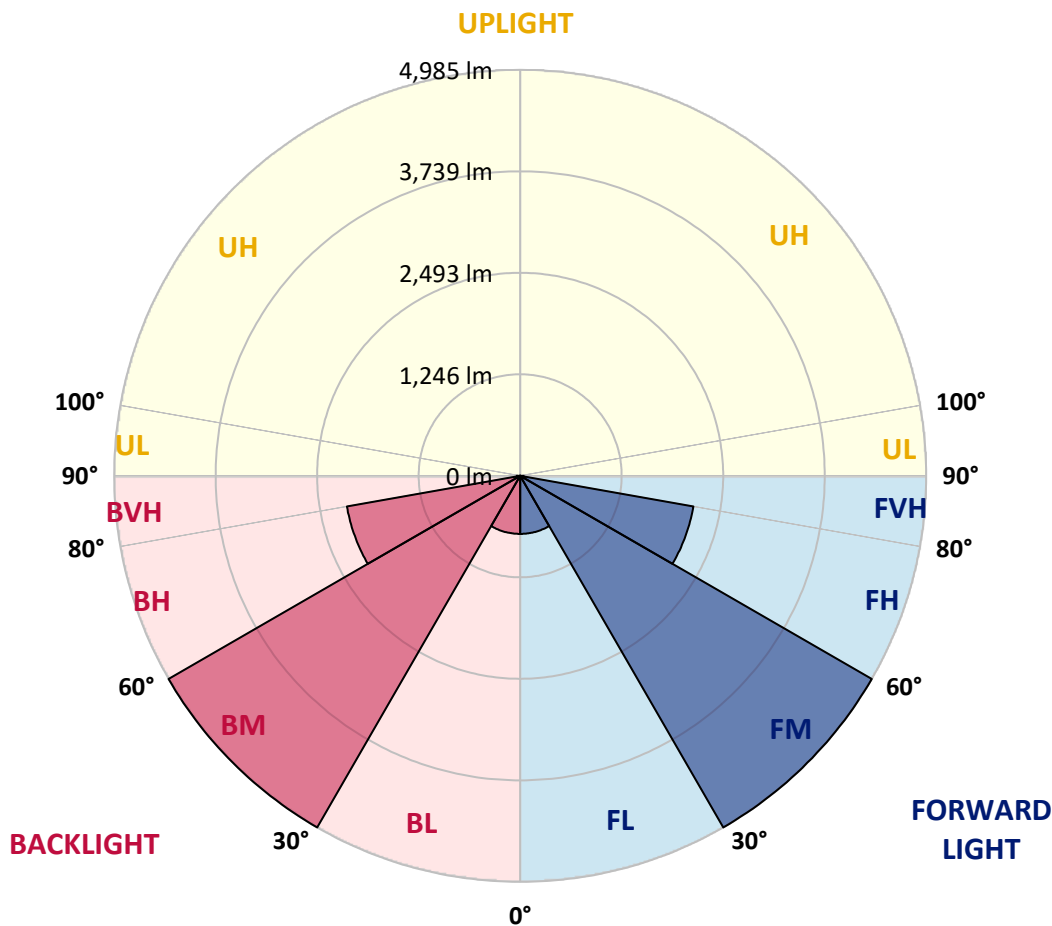
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	713.1	4.5			
FM (30°-60°)	4985.0	31.6			
FH (60°-80°)	2160.4	13.7			G2/5000
FVH (80°-90°)	40.4	0.3			G1/100
BL (0°-30°)	713.1	4.5	B2/1000		
BM (30°-60°)	4985.0	31.6	B3/5000		
BH (60°-80°)	2160.4	13.7	B3/2500		G2/5000
BVH (80°-90°)	40.4	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°	645.9	645.9	645.9	645.9	645.9	645.9	645.9	645.9	645.9	645.9	645.9
2.5°	785.4	771.3	721.8	739.1	757.1	754.6	750.1	736.6	724.4	775.1	785.4
5°	1001.4	969.2	951.9	937.7	934.5	899.8	947.4	942.2	958.3	985.3	1011.6
7.5°	1173.6	1143.4	1097.8	1088.1	1036.1	997.5	1038.6	1089.4	1105.5	1155.0	1184.5
10°	1236.6	1210.3	1218.6	1175.5	1173.0	1183.9	1174.9	1186.5	1228.9	1223.1	1245.0
12.5°	1378.0	1382.5	1355.5	1344.6	1366.4	1414.0	1373.5	1359.4	1349.1	1392.8	1406.3
15°	1510.4	1536.8	1492.4	1485.3	1476.3	1520.7	1477.0	1498.2	1516.8	1525.8	1520.7
17.5°	1698.1	1699.4	1649.9	1570.8	1600.4	1614.5	1595.2	1558.6	1646.7	1691.0	1693.6
20°	1821.5	1826.0	1728.3	1604.9	1688.4	1701.3	1691.7	1615.2	1732.1	1806.1	1802.8
22.5°	1954.5	1939.1	1806.7	1716.7	1746.3	1754.0	1733.4	1723.8	1806.1	1940.4	1920.5
25°	2043.9	2072.1	1940.4	1882.5	1857.5	1839.5	1865.8	1871.0	1955.2	2077.3	2009.8
27.5°	2257.2	2208.4	2002.1	2023.9	1970.6	1849.1	1964.8	2028.4	2010.4	2218.7	2269.5
30°	2446.9	2448.1	2158.9	2200.7	2101.7	2003.4	2128.7	2220.6	2198.1	2464.8	2416.6
32.5°	2689.2	2698.2	2429.5	2317.7	2250.8	2232.2	2216.8	2318.3	2458.4	2674.4	2678.9
35°	2950.7	3027.9	2662.8	2545.2	2431.4	2349.2	2437.9	2578.6	2669.9	3015.0	2954.0
37.5°	3460.4	3330.6	3031.7	2810.6	2738.0	2705.2	2752.1	2833.8	3031.1	3328.7	3433.4
40°	3761.9	3725.9	3319.0	3133.9	2853.7	2941.1	2915.4	3139.1	3302.3	3746.4	3756.1
42.5°	4222.7	4041.5	3675.7	3440.5	3188.6	3036.9	3197.6	3497.7	3695.0	4070.4	4247.8
45°	4587.1	4354.5	4072.3	3893.6	3575.5	3463.0	3520.8	3905.2	4152.6	4410.4	4643.7
47.5°	4990.1	4738.2	4456.0	4138.5	3828.1	4011.2	3909.1	4247.1	4488.8	4858.4	5076.9
50°	5496.6	5217.6	4856.4	4594.2	4388.5	4452.8	4436.7	4677.7	4976.0	5312.8	5560.9
52.5°	6054.5	5738.9	5390.5	5146.9	5060.2	4900.8	5109.0	5208.0	5427.8	5736.3	6027.5
55°	6444.6	6129.0	5918.2	5996.6	5973.5	5717.7	5900.2	5910.5	5804.4	5915.6	6208.7
57.5°	6384.2	6082.7	6053.8	6350.1	6793.0	7040.4	6758.2	6151.5	5754.3	5702.3	6012.7
60°	5582.1	5324.3	5589.1	6257.6	7547.5	8300.8	7214.6	5969.6	5315.3	5044.7	5344.3
62.5°	3846.7	3672.5	4221.4	5266.5	7638.1	9273.2	7197.9	5187.4	4122.4	3631.4	3864.1
65°	1823.4	1760.4	2223.8	3339.0	6362.3	9013.6	6288.4	3509.9	2372.9	1895.4	1948.1
67.5°	685.8	654.3	816.3	1475.1	4007.4	7149.0	4227.2	1731.5	917.8	713.4	737.8
70°	389.5	367.0	388.2	538.0	1613.2	4049.2	1823.4	593.9	390.1	355.4	378.6
72.5°	306.6	289.2	292.4	325.2	556.6	1589.5	590.0	338.7	283.4	269.3	289.9
75°	253.2	237.8	237.2	255.2	324.6	516.1	333.6	259.0	229.5	219.2	235.9
77.5°	201.2	192.2	194.7	208.9	232.7	288.6	241.7	209.5	188.3	176.1	187.7
80°	147.2	145.9	156.2	169.0	173.5	194.1	181.2	169.0	150.4	133.0	137.5
82.5°	96.4	97.1	116.3	126.6	124.7	124.0	129.8	129.2	112.5	88.1	88.1
85°	55.3	56.6	71.3	79.7	78.4	62.3	82.3	82.9	72.0	53.3	51.4
87.5°	18.0	22.5	30.9	32.8	31.5	17.4	31.5	34.7	31.5	22.5	19.9
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)