

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: P367106

Luminaire Tested: **MSA-SA1D-830-U-5NQ**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P367106
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-SA1D-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: 5576 lumens
Efficiency: N/A
Efficacy: 83.2 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type V - Short
BUG Rating: B2 - U0 - G1

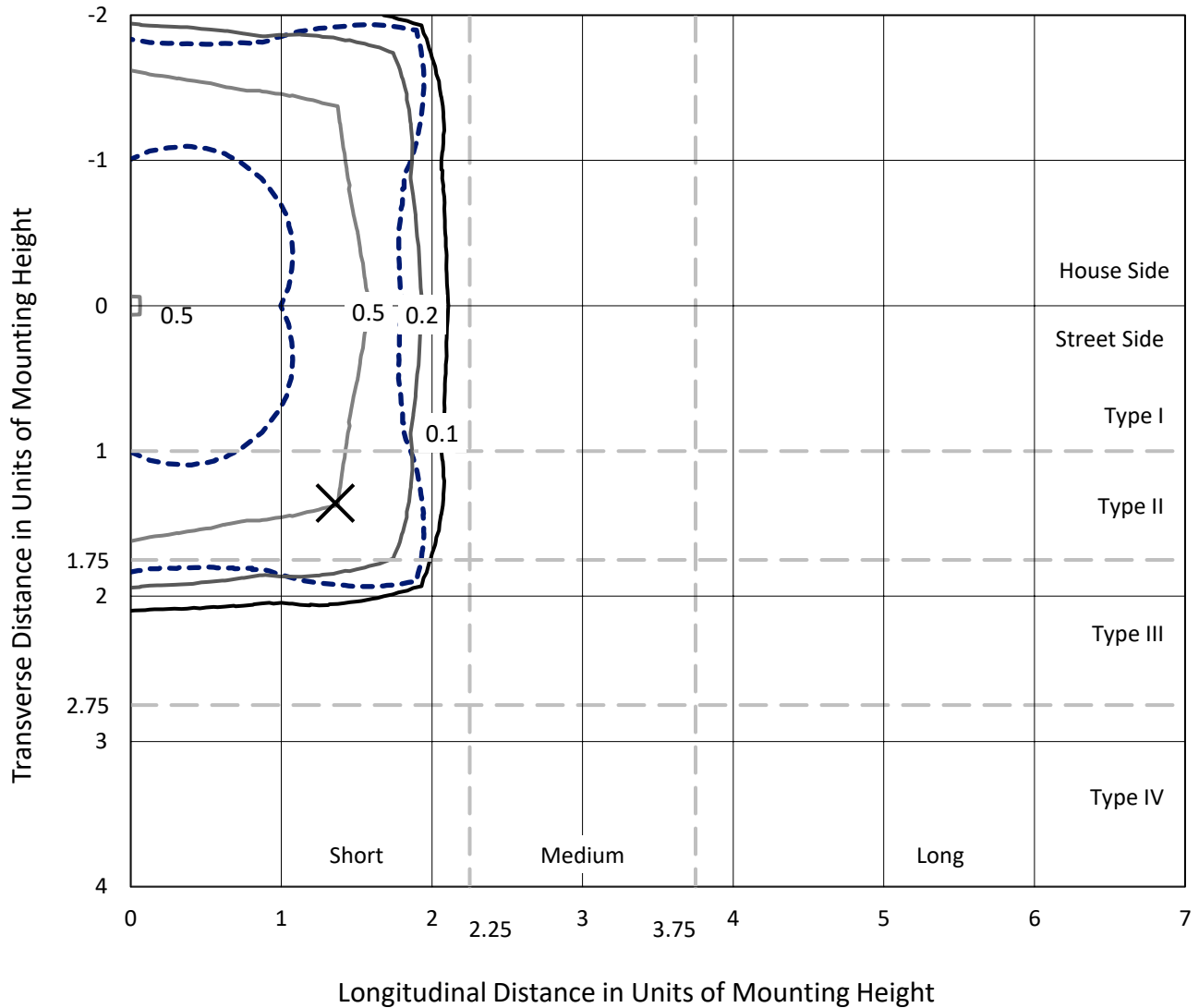
Input Watts (W): 67
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

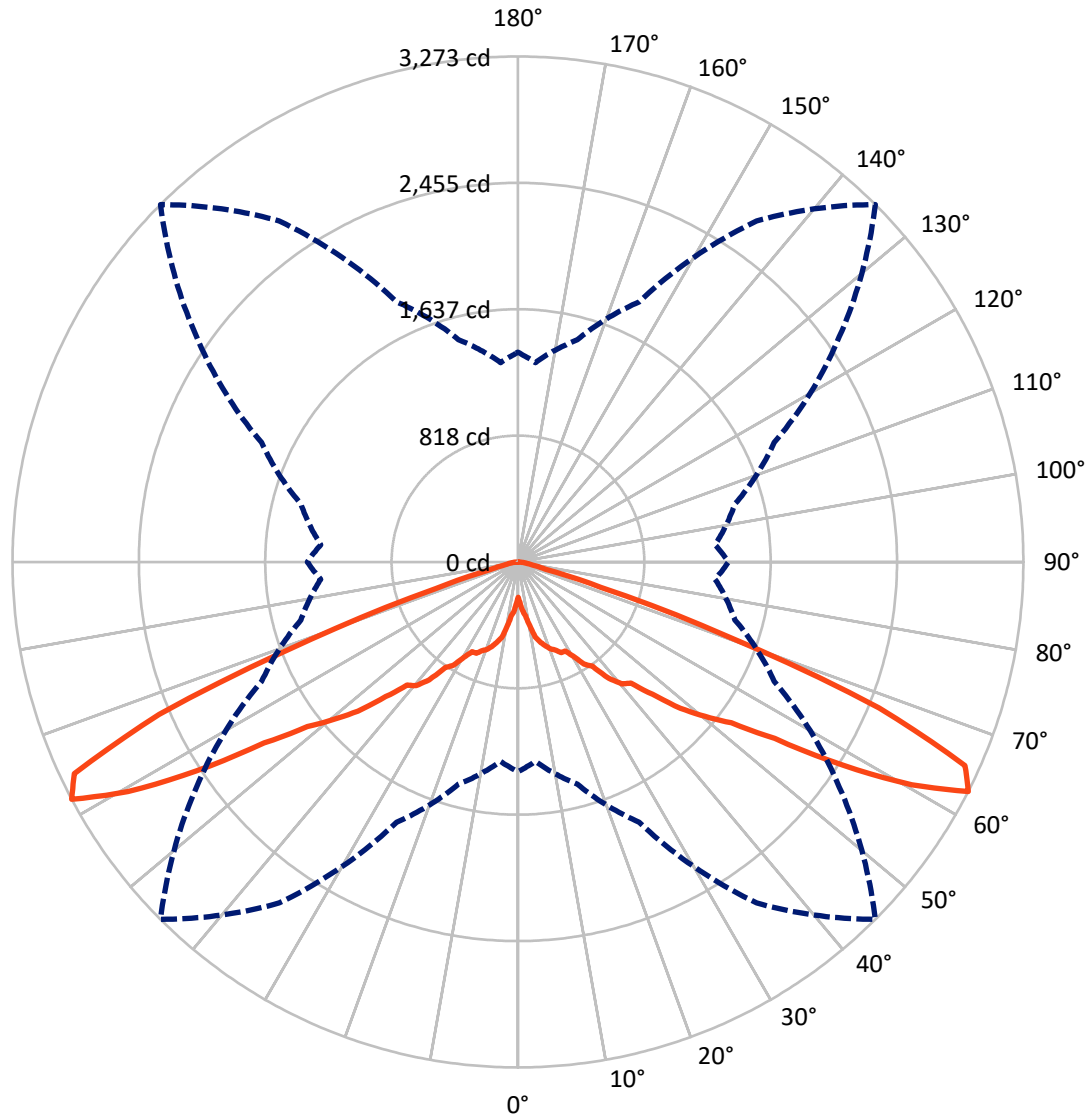
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1 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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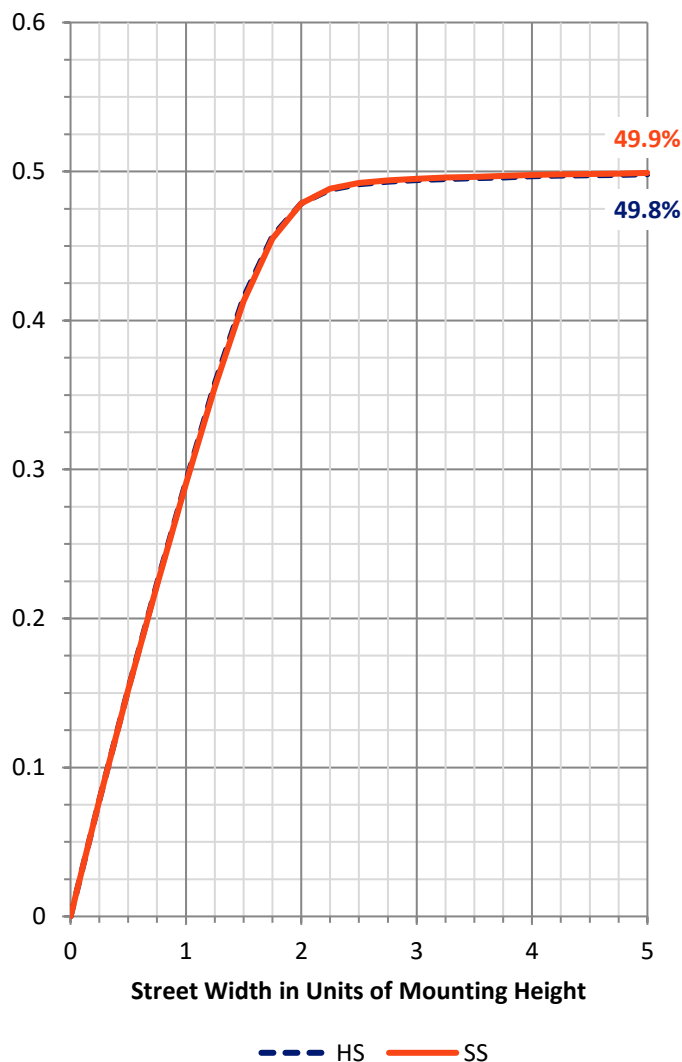
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2788.0	0.0	2788.0
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	2788.0	0.0	2788.0
	% Fixture	50.0	0.0	50.0
Total	Lumens	5576.0	0.0	5576.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	34.4	0.6
10°-20°	151.5	2.7
20°-30°	317.5	5.7
30°-40°	598.3	10.7
40°-50°	1085.9	19.5
50°-60°	1834.8	32.9
60°-70°	1371.6	24.6
70°-80°	153.5	2.8
80°-90°	28.6	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°	5576.0	100.0
0°-180°	5576.0	100.0

Coefficient of Utilization



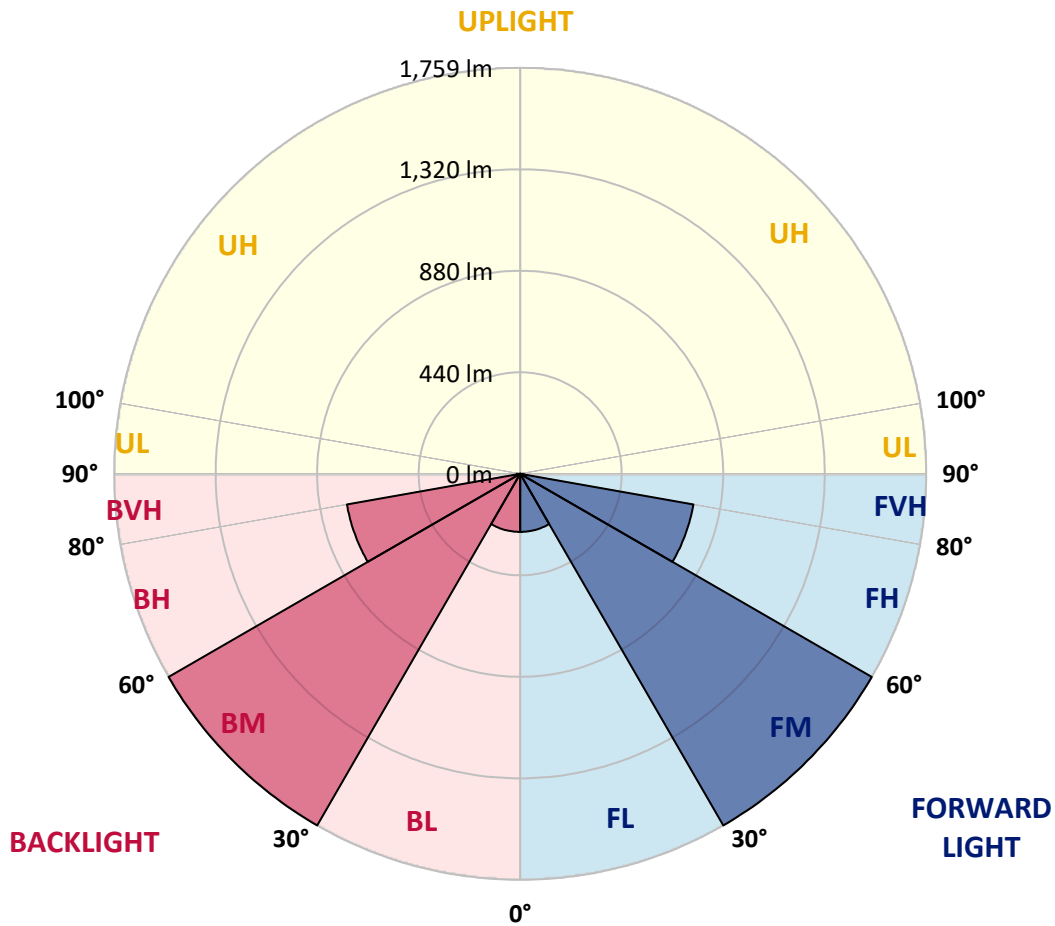
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	251.7	4.5			
FM (30°-60°)	1759.5	31.6			
FH (60°-80°)	762.5	13.7			G1/1800
FVH (80°-90°)	14.3	0.3			G1/100
BL (0°-30°)	251.7	4.5	B1/500		
BM (30°-60°)	1759.5	31.6	B2/2500		
BH (60°-80°)	762.5	13.7	B2/1000		G1/1800
BVH (80°-90°)	14.3	0.3			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G1

Type V Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	228.0	228.0	228.0	228.0	228.0	228.0	228.0	228.0	228.0	228.0	228.0
2.5°	277.2	272.2	254.8	260.9	267.2	266.3	264.7	260.0	255.7	273.6	277.2
5°	353.4	342.1	336.0	331.0	329.8	317.6	334.4	332.6	338.2	347.8	357.1
7.5°	414.2	403.6	387.5	384.1	365.7	352.1	366.6	384.5	390.2	407.7	418.1
10°	436.5	427.2	430.1	414.9	414.0	417.9	414.7	418.8	433.7	431.7	439.4
12.5°	486.4	488.0	478.4	474.6	482.3	499.1	484.8	479.8	476.2	491.6	496.4
15°	533.1	542.4	526.8	524.3	521.1	536.7	521.3	528.8	535.4	538.6	536.7
17.5°	599.3	599.8	582.3	554.4	564.9	569.9	563.1	550.1	581.2	596.9	597.8
20°	642.9	644.5	610.0	566.5	595.9	600.5	597.1	570.1	611.4	637.5	636.3
22.5°	689.9	684.4	637.7	605.9	616.4	619.1	611.8	608.4	637.5	684.9	677.8
25°	721.4	731.4	684.9	664.5	655.6	649.3	658.6	660.4	690.1	733.2	709.4
27.5°	796.7	779.5	706.6	714.4	695.5	652.7	693.5	715.9	709.6	783.1	801.0
30°	863.6	864.1	762.0	776.7	741.8	707.1	751.3	783.8	775.8	870.0	853.0
32.5°	949.2	952.3	857.5	818.0	794.4	787.9	782.4	818.3	867.7	943.9	945.5
35°	1041.5	1068.7	939.9	898.3	858.2	829.1	860.5	910.1	942.3	1064.2	1042.6
37.5°	1221.4	1175.6	1070.1	992.0	966.4	954.8	971.4	1000.2	1069.8	1174.9	1211.9
40°	1327.8	1315.1	1171.5	1106.1	1007.2	1038.1	1029.0	1108.0	1165.6	1322.3	1325.7
42.5°	1490.4	1426.5	1297.4	1214.3	1125.4	1071.9	1128.6	1234.5	1304.2	1436.7	1499.3
45°	1619.1	1536.9	1437.3	1374.3	1262.0	1222.3	1242.7	1378.4	1465.7	1556.7	1639.0
47.5°	1761.3	1672.4	1572.8	1460.7	1351.1	1415.8	1379.7	1499.0	1584.3	1714.8	1791.9
50°	1940.1	1841.6	1714.1	1621.5	1549.0	1571.6	1566.0	1651.0	1756.3	1875.2	1962.7
52.5°	2137.0	2025.6	1902.6	1816.6	1786.0	1729.8	1803.3	1838.2	1915.8	2024.7	2127.4
55°	2274.7	2163.3	2088.9	2116.5	2108.4	2018.1	2082.5	2086.1	2048.7	2088.0	2191.4
57.5°	2253.3	2146.9	2136.7	2241.3	2397.6	2485.0	2385.4	2171.2	2031.0	2012.6	2122.2
60°	1970.2	1879.3	1972.7	2208.6	2663.9	2929.8	2546.4	2107.0	1876.1	1780.6	1886.3
62.5°	1357.7	1296.2	1490.0	1858.8	2695.9	3273.0	2540.5	1830.9	1455.0	1281.7	1363.8
65°	643.6	621.4	784.9	1178.5	2245.6	3181.4	2219.5	1238.8	837.5	669.0	687.6
67.5°	242.1	230.9	288.1	520.6	1414.4	2523.3	1492.0	611.1	323.9	251.8	260.4
70°	137.5	129.5	137.0	189.9	569.4	1429.2	643.6	209.6	137.7	125.4	133.6
72.5°	108.2	102.1	103.2	114.8	196.5	561.0	208.3	119.6	100.0	95.1	102.3
75°	89.4	83.9	83.7	90.1	114.6	182.2	117.7	91.4	81.0	77.4	83.3
77.5°	71.0	67.8	68.7	73.7	82.1	101.9	85.3	74.0	66.5	62.2	66.2
80°	51.9	51.5	55.1	59.7	61.3	68.5	64.0	59.7	53.1	47.0	48.5
82.5°	34.0	34.3	41.1	44.7	44.0	43.8	45.8	45.6	39.7	31.1	31.1
85°	19.5	20.0	25.2	28.1	27.7	22.0	29.0	29.3	25.4	18.8	18.1
87.5°	6.4	7.9	10.9	11.6	11.1	6.1	11.1	12.3	11.1	7.9	7.0
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)