

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: P366843

Luminaire Tested: **MSA-SA1B-830-U-5WQ**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P366843
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-4)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA1B-830-U-5WQ
Description: MESA POST TOP DECORATIVE LUMINAIRE. (1) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE V WIDE OPTICS.
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4317 lumens
Efficiency: N/A
Efficacy: 98.1 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type V - Short
BUG Rating: B3 - U0 - G1

Input Watts (W): 44
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

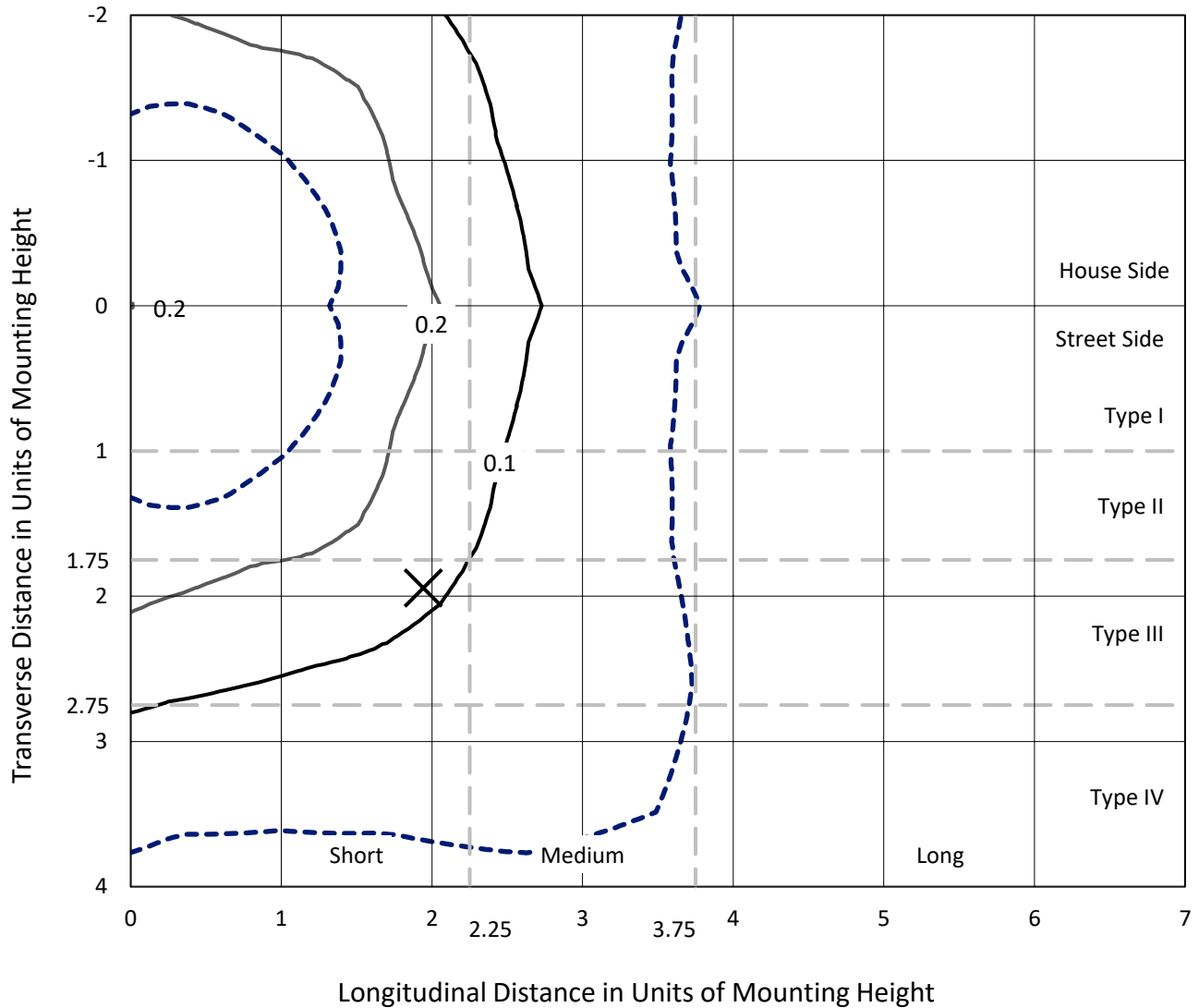




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Iso-Footcandle Lines of Horizontal Illumination

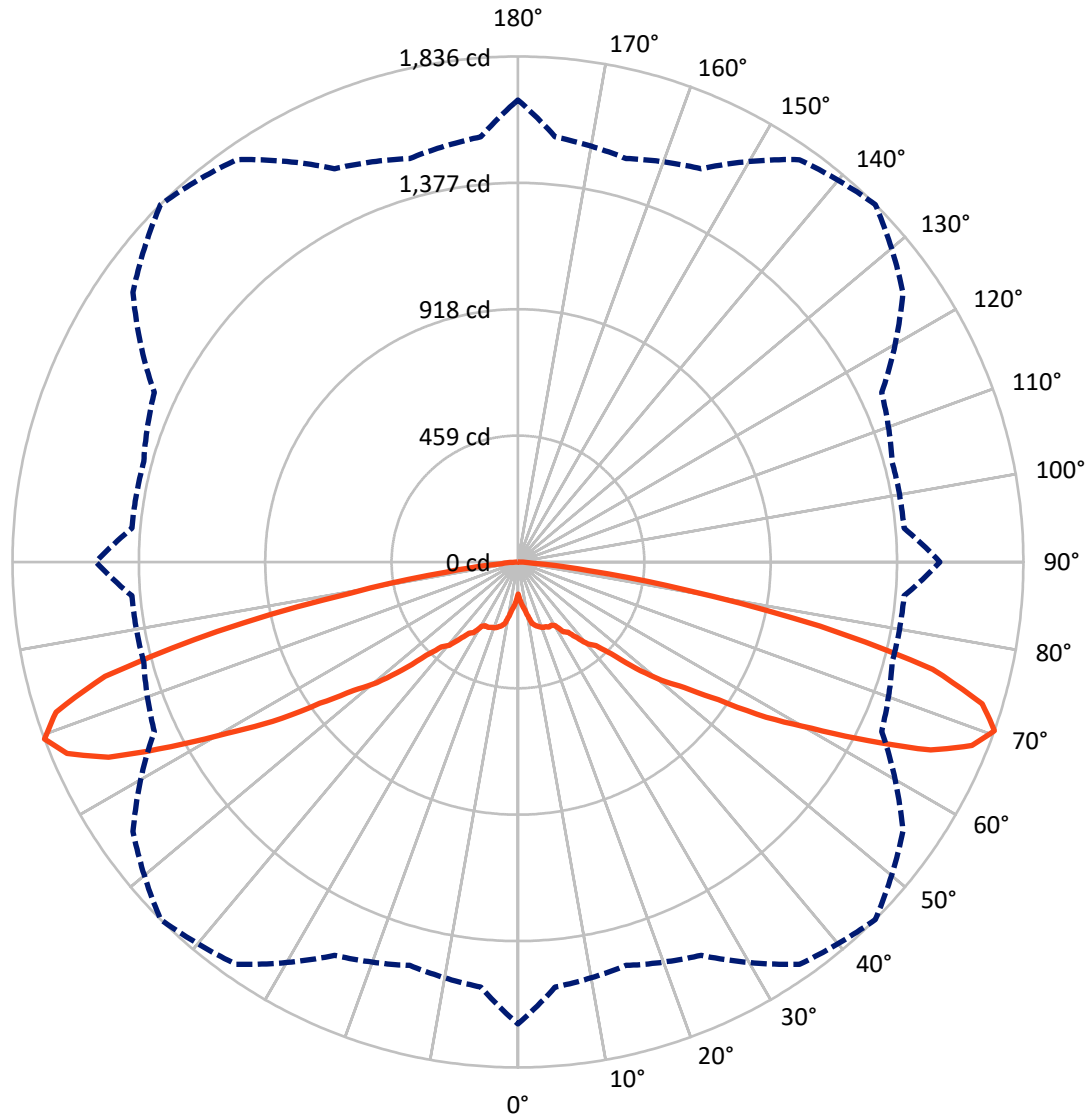
x Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 0.4 fc
 Type V - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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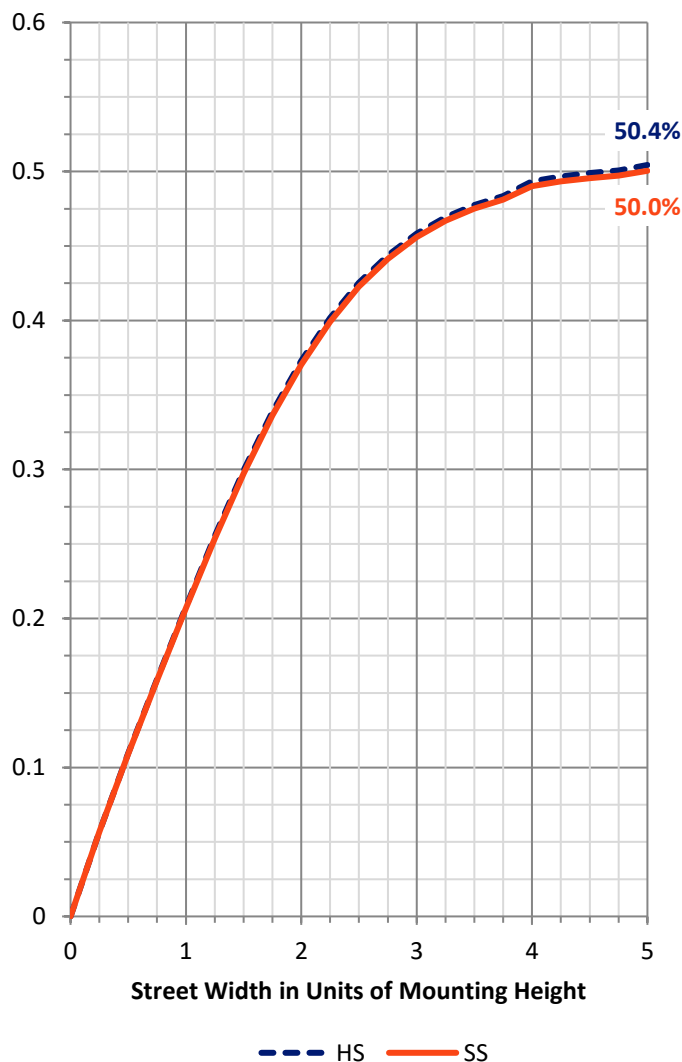
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2158.5	0.0	2158.5
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	2158.5	0.0	2158.5
	% Fixture	50.0	0.0	50.0
Total	Lumens	4317.0	0.0	4317.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	17.0	0.4
10°-20°	68.0	1.6
20°-30°	128.5	3.0
30°-40°	223.8	5.2
40°-50°	427.8	9.9
50°-60°	829.6	19.2
60°-70°	1452.6	33.6
70°-80°	1091.7	25.3
80°-90°	78.1	1.8
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°	4317.0	100.0
0°-180°	4317.0	100.0

Coefficient of Utilization



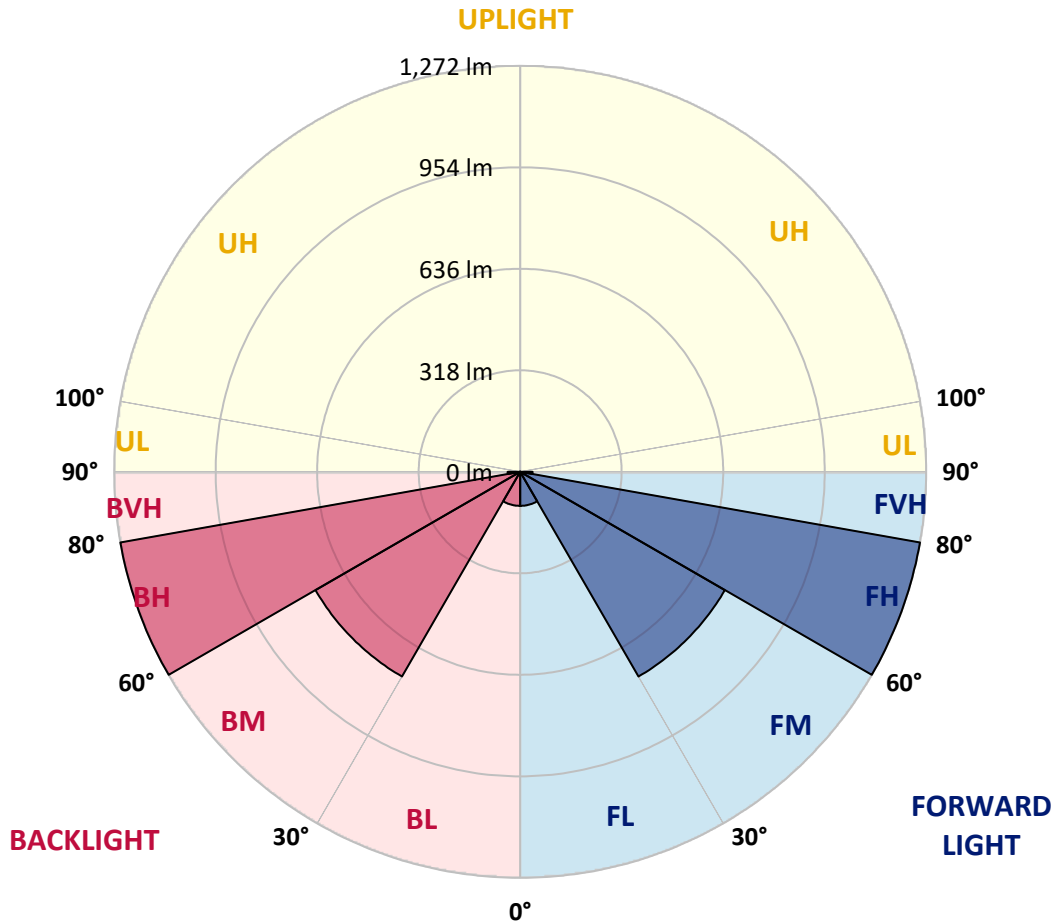
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	106.7	2.5			
FM (30°-60°)	740.6	17.2			
FH (60°-80°)	1272.2	29.5			G1/1800
FVH (80°-90°)	39.1	0.9			G1/100
BL (0°-30°)	106.7	2.5	B0/110		
BM (30°-60°)	740.6	17.2	B1/1000		
BH (60°-80°)	1272.2	29.5	B3/2500		G1/1800
BVH (80°-90°)	39.1	0.9			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G1

Type V Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	116.7	116.7	116.7	116.7	116.7	116.7	116.7	116.7	116.7	116.7	116.7
2.5°	142.0	139.8	133.0	133.3	136.5	136.8	137.2	133.0	132.0	140.5	141.0
5°	180.4	175.3	170.3	168.3	165.3	156.9	166.1	167.1	169.1	175.7	178.7
7.5°	206.0	199.8	192.9	188.7	180.5	173.7	181.2	187.4	191.4	198.8	203.0
10°	210.8	207.2	206.8	199.5	198.0	200.5	200.0	200.1	206.2	206.3	208.8
12.5°	226.1	228.8	223.6	221.1	222.6	228.8	223.7	221.6	223.1	229.9	227.1
15°	246.0	249.2	241.3	237.3	233.3	239.2	234.0	237.8	242.7	247.7	245.2
17.5°	268.1	268.3	257.6	242.7	246.2	247.0	245.2	242.0	255.9	268.0	266.8
20°	280.2	280.0	261.6	241.3	251.7	253.6	251.9	241.0	261.9	278.5	278.0
22.5°	292.6	288.9	266.8	250.4	254.2	255.7	251.9	250.9	266.8	289.9	289.7
25°	299.3	302.5	278.2	268.0	264.8	261.3	264.6	266.3	281.5	304.1	297.6
27.5°	320.2	315.0	281.5	280.5	273.8	259.9	271.5	279.7	280.5	317.0	323.7
30°	339.1	341.1	296.6	298.1	285.9	268.3	286.2	299.3	301.8	341.5	340.8
32.5°	359.2	360.1	323.4	307.8	302.6	302.0	295.1	306.5	326.2	358.1	359.4
35°	389.7	396.6	347.3	326.4	319.9	313.2	319.2	329.4	347.8	395.6	392.2
37.5°	459.5	448.7	399.4	356.0	351.7	349.0	353.9	361.2	398.9	449.8	465.4
40°	508.3	503.1	436.1	405.1	377.7	392.1	380.7	409.1	440.3	503.4	513.5
42.5°	583.8	560.7	491.9	453.5	425.0	414.8	421.2	458.4	498.1	568.4	588.2
45°	656.3	620.7	561.7	527.9	484.7	473.9	482.5	526.2	572.1	627.7	662.5
47.5°	730.3	693.5	628.7	579.8	544.5	576.4	548.5	590.0	635.7	700.4	731.4
50°	807.2	766.4	702.4	649.1	646.1	674.4	640.9	662.2	704.6	771.5	808.1
52.5°	895.5	851.4	787.5	751.5	758.5	756.6	749.9	746.1	787.8	853.6	897.0
55°	1000.5	952.9	901.8	885.3	904.7	883.8	893.6	892.3	898.3	945.4	996.1
57.5°	1127.4	1073.7	1022.4	1018.7	1043.7	1063.5	1045.9	1020.6	1010.0	1055.7	1113.9
60°	1287.4	1221.4	1165.1	1153.6	1224.7	1224.6	1208.7	1152.0	1148.0	1199.8	1269.8
62.5°	1464.0	1383.7	1322.2	1303.8	1415.3	1427.9	1378.3	1276.8	1297.6	1339.3	1422.3
65°	1614.1	1517.5	1460.2	1455.2	1591.5	1646.9	1537.4	1398.6	1405.3	1439.9	1529.9
67.5°	1711.9	1595.5	1550.0	1574.2	1743.7	1778.4	1676.6	1480.0	1456.2	1470.6	1578.1
70°	1677.6	1549.6	1516.8	1575.8	1783.1	1835.5	1706.5	1457.2	1406.6	1407.3	1532.2
72.5°	1417.5	1295.7	1311.3	1419.5	1690.0	1763.5	1567.9	1316.2	1212.7	1210.2	1323.5
75°	937.3	856.0	917.4	1086.1	1404.9	1555.3	1299.1	1031.6	901.8	859.6	947.2
77.5°	410.0	399.6	451.3	641.9	957.8	1120.9	930.6	673.9	490.5	408.0	445.6
80°	109.9	107.5	135.0	243.5	466.2	617.3	503.6	268.8	140.3	102.2	108.4
82.5°	40.0	41.0	50.1	68.2	153.6	259.9	167.3	78.5	53.1	43.5	43.5
85°	17.4	16.9	24.3	27.3	41.9	58.8	48.1	33.3	26.8	20.1	19.3
87.5°	4.7	5.9	8.2	8.5	10.9	8.9	12.7	11.7	10.0	7.0	5.7
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)