

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: P368427

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

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P368427
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-SA4B-830-U-5WQ
Description: MESA POST TOP DECORATIVE LUMINAIRE. (4) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE V WIDE OPTICS.
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16562 lumens
Efficiency: N/A
Efficacy: 96.9 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type V - Short
BUG Rating: B4 - U0 - G2

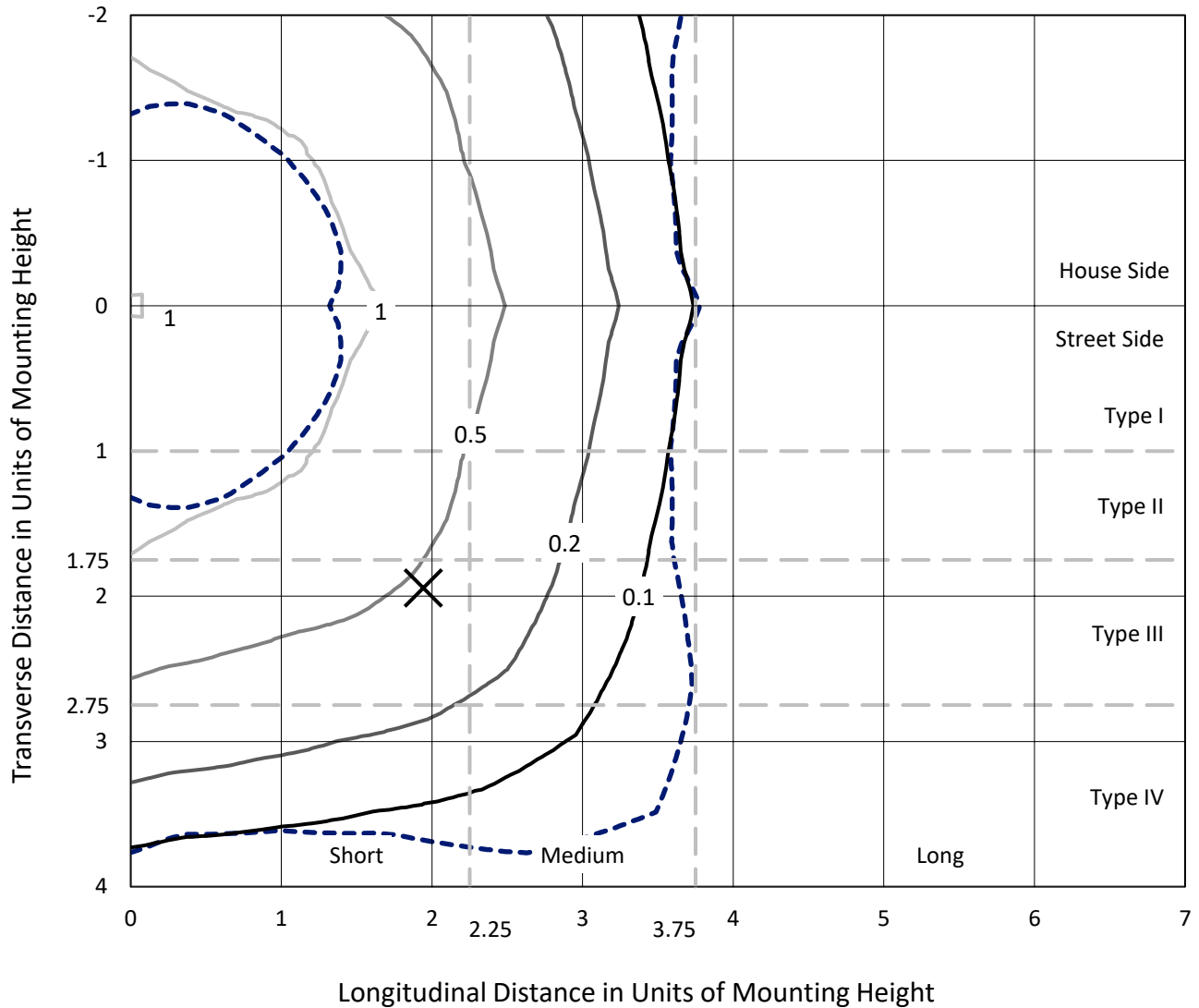
Input Watts (W): 171
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P368427
 CATALOG NUMBER: MSA-SA4B-830-U-5WQ

Iso-Footcandle Lines of Horizontal Illumination

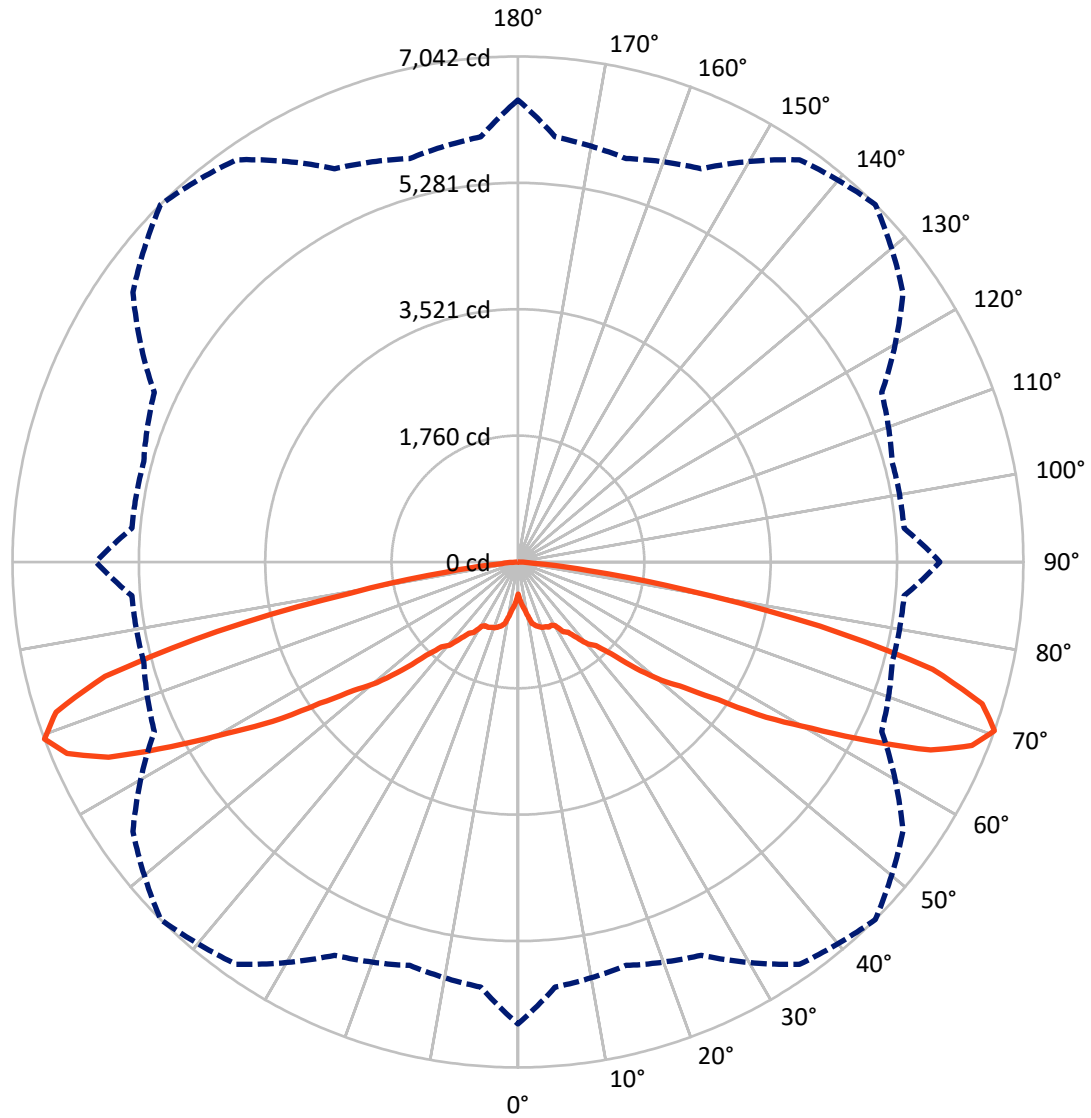
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.4 fc
 Type V - Short - N/A

REPORT NUMBER: P368427
CATALOG NUMBER: MSA-SA4B-830-U-5WQ

Luminous Intensity Polar Plot



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

REPORT NUMBER: P368427
 CATALOG NUMBER: MSA-SA4B-830-U-5WQ

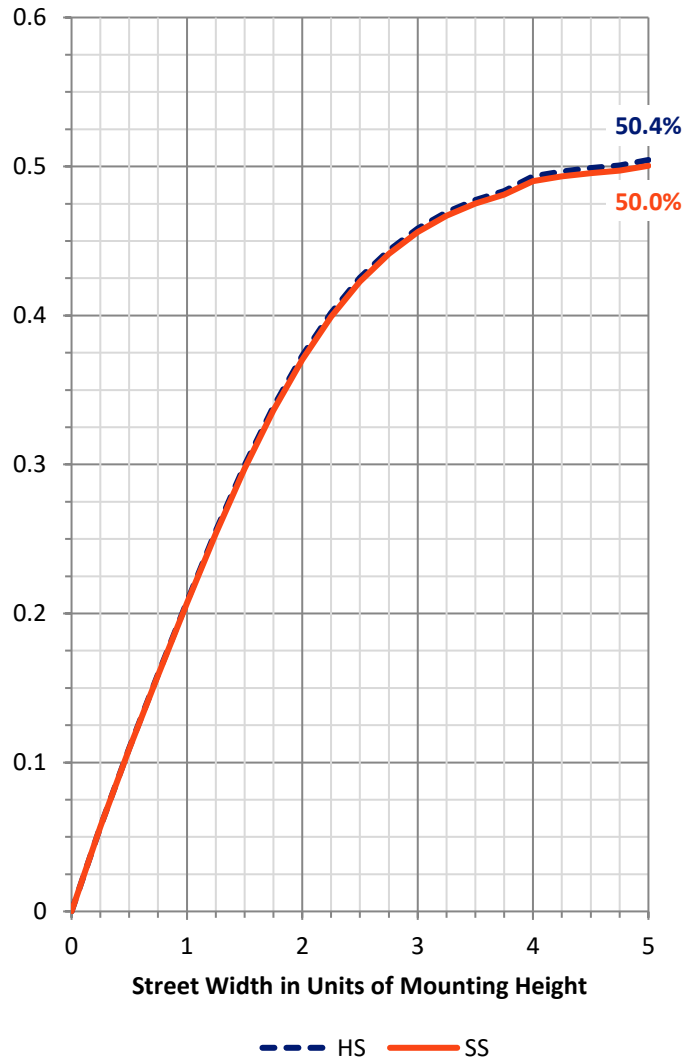
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	8281.0	0.0	8281.0
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	8281.0	0.0	8281.0
	% Fixture	50.0	0.0	50.0
Total	Lumens	16562.0	0.0	16562.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	65.1	0.4
10°-20°	260.7	1.6
20°-30°	492.9	3.0
30°-40°	858.6	5.2
40°-50°	1641.3	9.9
50°-60°	3182.6	19.2
60°-70°	5572.9	33.6
70°-80°	4188.3	25.3
80°-90°	299.7	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°	16562.0	100.0
0°-180°	16562.0	100.0



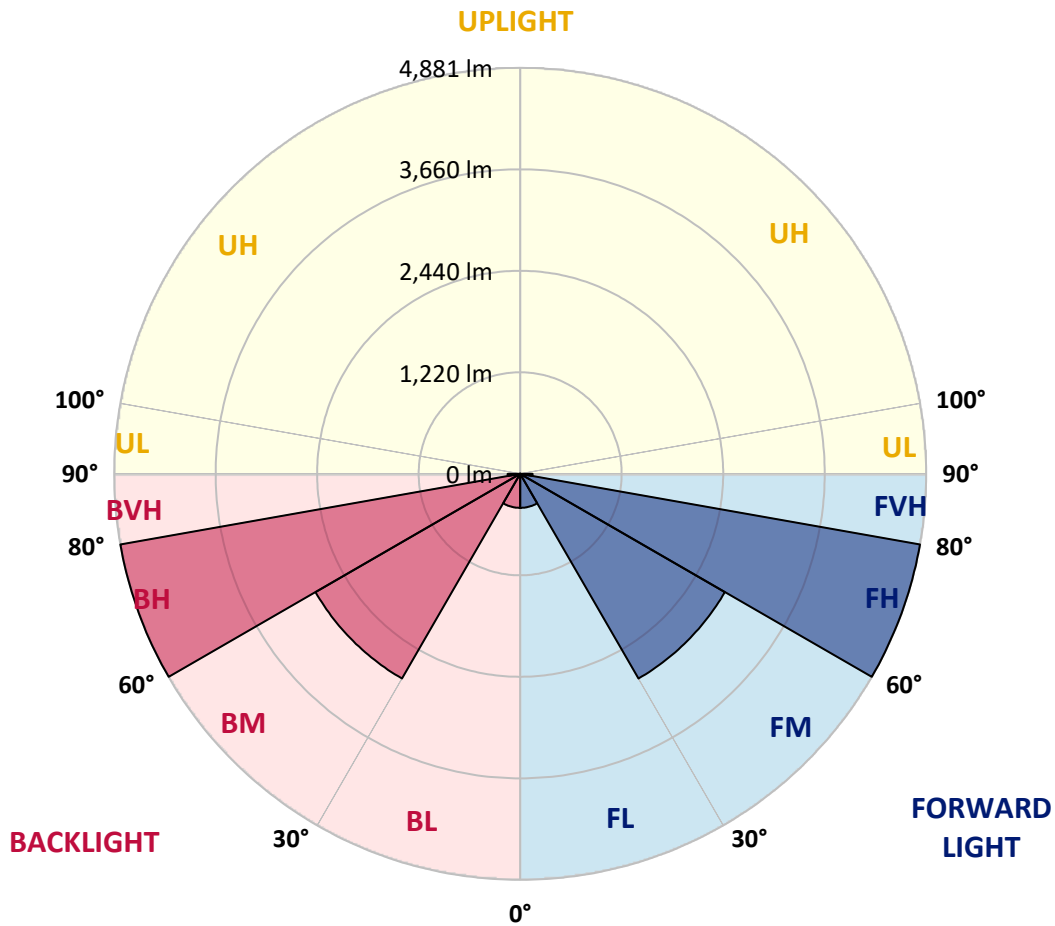
REPORT NUMBER: P368427
 CATALOG NUMBER: MSA-SA4B-830-U-5WQ

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	409.4	2.5			
FM (30°-60°)	2841.2	17.2			
FH (60°-80°)	4880.6	29.5			G2/5000
FVH (80°-90°)	149.8	0.9			G2/225
BL (0°-30°)	409.4	2.5	B1/500		
BM (30°-60°)	2841.2	17.2	B3/5000		
BH (60°-80°)	4880.6	29.5	B4/5000		G2/5000
BVH (80°-90°)	149.8	0.9			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G2

Type V Short





REPORT NUMBER: P368427
 CATALOG NUMBER: MSA-SA4B-830-U-5WQ

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	447.8	447.8	447.8	447.8	447.8	447.8	447.8	447.8	447.8	447.8	447.8
2.5°	544.8	536.5	510.1	511.4	523.6	524.9	526.2	510.1	506.3	539.1	541.0
5°	692.0	672.7	653.4	645.7	634.2	602.0	637.4	641.2	648.9	674.0	685.6
7.5°	790.3	766.5	740.2	724.1	692.6	666.3	695.2	719.0	734.4	762.7	778.7
10°	808.9	794.8	793.5	765.2	759.4	769.1	767.1	767.8	790.9	791.6	801.2
12.5°	867.4	877.7	857.7	848.1	853.9	877.7	858.4	850.0	855.8	882.2	871.2
15°	943.8	956.0	925.8	910.4	895.0	917.5	897.6	912.4	931.0	950.3	940.6
17.5°	1028.6	1029.3	988.2	931.0	944.5	947.7	940.6	928.4	981.7	1028.0	1023.5
20°	1074.9	1074.3	1003.6	925.8	965.7	972.7	966.3	924.6	1004.9	1068.5	1066.6
22.5°	1122.5	1108.3	1023.5	960.5	975.3	981.1	966.3	962.5	1023.5	1112.2	1111.5
25°	1148.2	1160.4	1067.2	1028.0	1015.8	1002.3	1015.2	1021.6	1080.0	1166.8	1141.7
27.5°	1228.5	1208.5	1080.0	1076.2	1050.5	997.2	1041.5	1073.0	1076.2	1216.3	1242.0
30°	1301.1	1308.8	1137.9	1143.7	1096.8	1029.3	1098.0	1148.2	1157.8	1310.1	1307.5
32.5°	1378.2	1381.4	1240.7	1180.9	1161.0	1158.4	1132.1	1175.8	1251.6	1373.7	1378.8
35°	1495.1	1521.4	1332.6	1252.2	1227.2	1201.5	1224.6	1263.8	1334.5	1517.6	1504.7
37.5°	1763.0	1721.3	1532.4	1366.0	1349.3	1339.0	1357.6	1385.9	1530.4	1725.8	1785.5
40°	1950.0	1930.1	1673.1	1554.2	1448.8	1504.1	1460.4	1569.6	1689.1	1931.4	1969.9
42.5°	2239.8	2151.1	1887.0	1739.9	1630.7	1591.5	1615.9	1758.5	1910.8	2180.7	2256.5
45°	2518.0	2381.1	2155.0	2025.2	1859.4	1818.3	1851.1	2018.7	2194.8	2408.1	2541.7
47.5°	2802.0	2660.6	2412.0	2224.3	2088.8	2211.5	2104.2	2263.5	2438.9	2686.9	2805.8
50°	3096.9	2940.1	2694.7	2490.3	2478.8	2587.4	2458.9	2540.5	2703.0	2960.0	3100.1
52.5°	3435.5	3266.5	3021.0	2882.9	2909.9	2902.8	2877.1	2862.3	3022.3	3274.8	3441.2
55°	3838.3	3655.8	3459.9	3396.3	3470.8	3390.5	3428.4	3423.3	3446.4	3626.9	3821.6
57.5°	4325.3	4119.1	3922.5	3908.3	4004.1	4079.9	4012.4	3915.4	3874.9	4050.3	4273.3
60°	4938.9	4685.8	4469.9	4425.6	4698.6	4698.0	4636.9	4419.8	4404.4	4602.9	4871.5
62.5°	5616.8	5308.4	5072.6	5001.9	5429.8	5478.0	5287.8	4898.4	4978.1	5138.1	5456.8
65°	6192.4	5821.7	5602.0	5582.7	6105.7	6318.4	5898.2	5365.5	5391.2	5524.2	5869.3
67.5°	6567.7	6121.1	5946.4	6039.5	6689.7	6822.7	6432.1	5677.8	5586.6	5641.8	6054.3
70°	6436.0	5945.1	5819.1	6045.3	6840.7	7041.8	6547.1	5590.4	5396.4	5399.0	5878.3
72.5°	5438.1	4971.0	5030.8	5445.9	6483.5	6765.6	6015.1	5049.4	4652.4	4642.7	5077.7
75°	3596.1	3283.8	3519.6	4166.6	5390.0	5966.9	4983.9	3957.8	3459.9	3298.0	3634.0
77.5°	1572.8	1533.0	1731.5	2462.7	3674.5	4300.3	3570.4	2585.4	1881.9	1565.1	1709.7
80°	421.5	412.5	517.9	934.2	1788.7	2368.3	1932.0	1031.2	538.4	391.9	415.7
82.5°	153.6	157.4	192.1	261.5	589.2	997.2	641.9	301.3	203.7	167.1	167.1
85°	66.8	64.9	93.2	104.7	160.6	225.5	184.4	127.9	102.8	77.1	73.9
87.5°	18.0	22.5	31.5	32.8	41.8	34.1	48.8	45.0	38.6	27.0	21.8
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)