

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: P368294

Luminaire Tested: **MSA-SA4A-830-U-5NQ**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P368294
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-SA4A-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: 12606 lumens
Efficiency: N/A
Efficacy: 97.7 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type V - Short
BUG Rating: B3 - U0 - G1

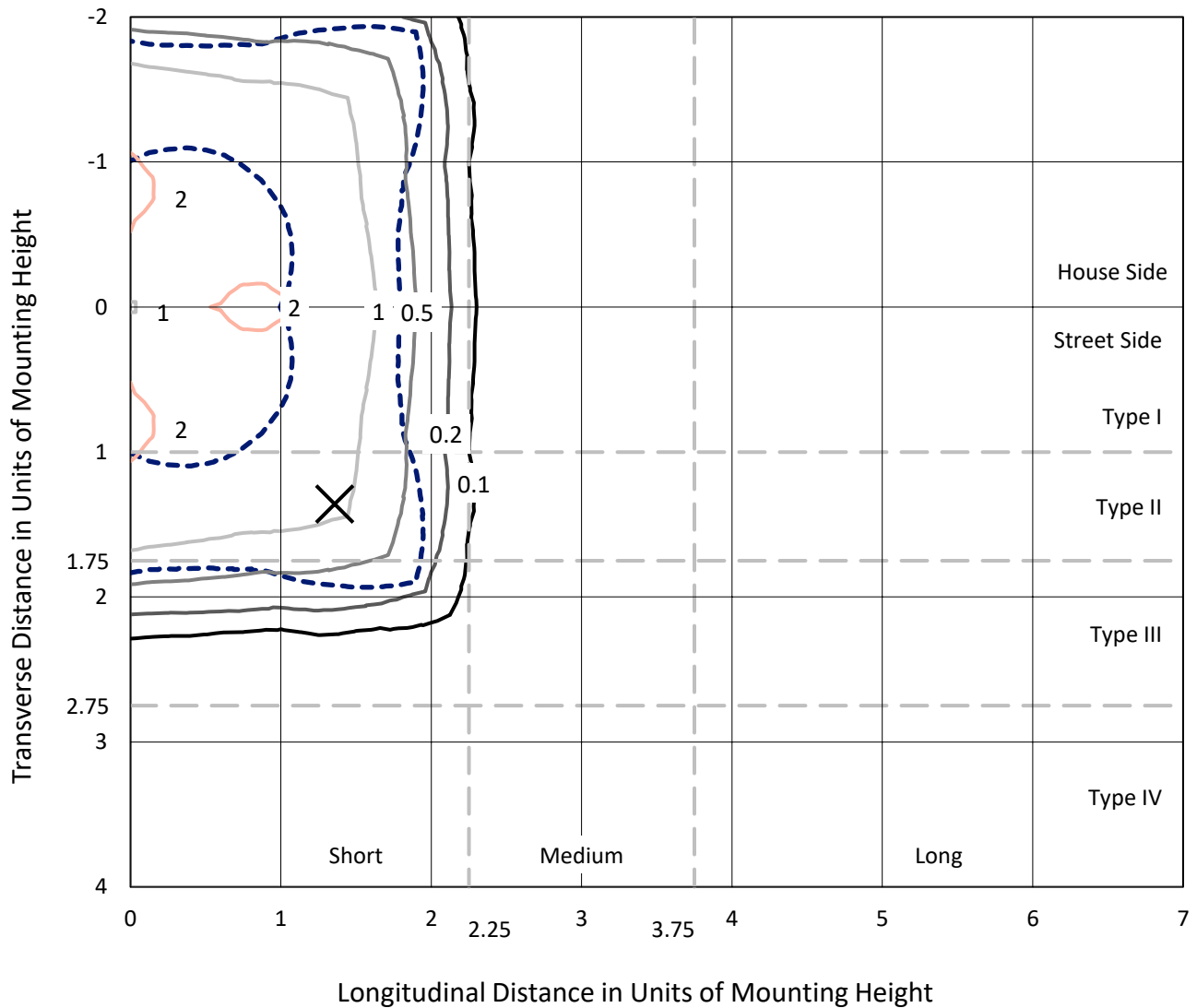
Input Watts (W): 129
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

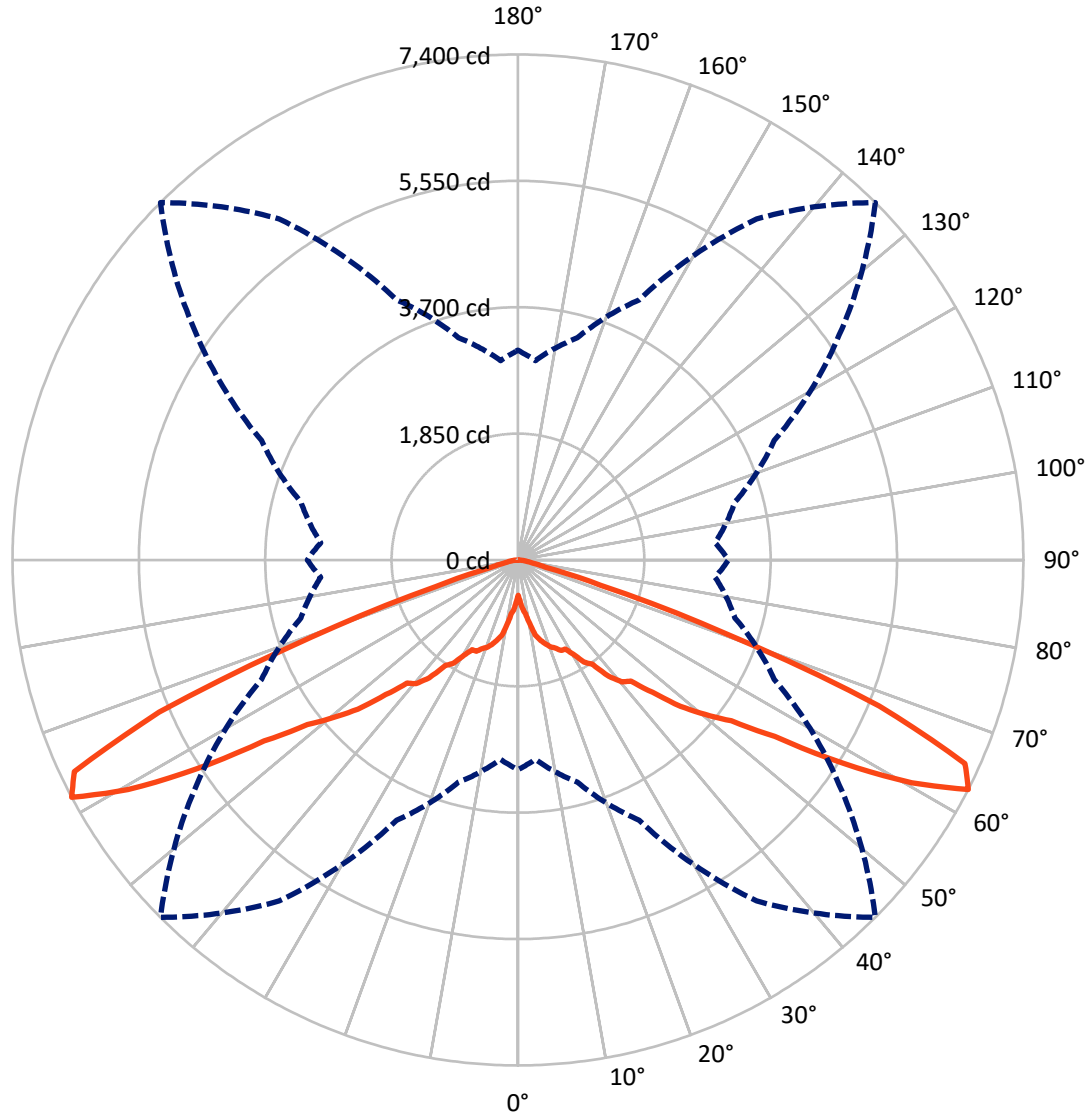
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.2 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	6303.0	0.0	6303.0
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	6303.0	0.0	6303.0
	% Fixture	50.0	0.0	50.0
Total	Lumens	12606.0	0.0	12606.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	77.7	0.6
10°-20°	342.5	2.7
20°-30°	717.9	5.7
30°-40°	1352.6	10.7
40°-50°	2454.9	19.5
50°-60°	4148.0	32.9
60°-70°	3100.9	24.6
70°-80°	346.9	2.8
80°-90°	64.5	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°	12606.0	100.0
0°-180°	12606.0	100.0

Coefficient of Utilization

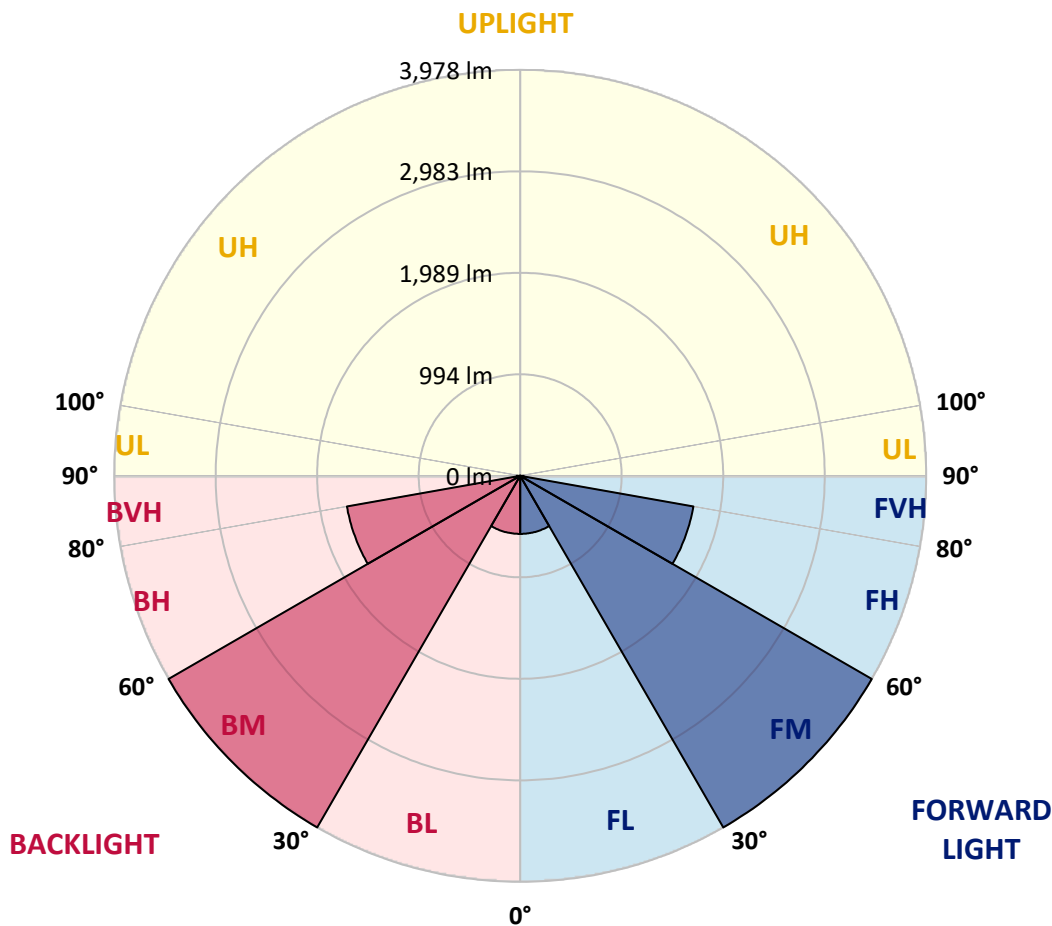


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	569.0	4.5			
FM (30°-60°)	3977.8	31.6			
FH (60°-80°)	1723.9	13.7			G1/1800
FVH (80°-90°)	32.3	0.3			G1/100
BL (0°-30°)	569.0	4.5	B2/1000		
BM (30°-60°)	3977.8	31.6	B3/5000		
BH (60°-80°)	1723.9	13.7	B3/2500		G1/1800
BVH (80°-90°)	32.3	0.3			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: 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°	515.4	515.4	515.4	515.4	515.4	515.4	515.4	515.4	515.4	515.4	515.4
2.5°	626.7	615.4	575.9	589.8	604.2	602.1	598.5	587.7	578.0	618.5	626.7
5°	799.0	773.4	759.5	748.3	745.7	718.0	756.0	751.9	764.7	786.2	807.2
7.5°	936.5	912.4	876.0	868.3	826.7	796.0	828.8	869.3	882.1	921.6	945.2
10°	986.7	965.7	972.4	938.0	936.0	944.7	937.5	946.7	980.6	976.0	993.4
12.5°	1099.6	1103.2	1081.6	1072.9	1090.3	1128.3	1096.0	1084.7	1076.5	1111.4	1122.1
15°	1205.2	1226.3	1190.9	1185.2	1178.0	1213.4	1178.6	1195.5	1210.4	1217.5	1213.4
17.5°	1355.0	1356.0	1316.5	1253.4	1277.0	1288.3	1272.9	1243.7	1314.0	1349.3	1351.4
20°	1453.4	1457.0	1379.1	1280.6	1347.3	1357.5	1349.9	1288.8	1382.2	1441.1	1438.6
22.5°	1559.6	1547.3	1441.7	1369.9	1393.4	1399.6	1383.2	1375.5	1441.1	1548.3	1532.4
25°	1630.9	1653.5	1548.3	1502.2	1482.2	1467.8	1488.8	1492.9	1560.1	1657.6	1603.7
27.5°	1801.2	1762.2	1597.6	1615.0	1572.4	1475.5	1567.8	1618.6	1604.2	1770.4	1810.9
30°	1952.5	1953.5	1722.7	1756.0	1677.1	1598.6	1698.6	1771.9	1754.0	1966.8	1928.4
32.5°	2145.8	2153.0	1938.6	1849.4	1796.0	1781.2	1768.9	1849.9	1961.7	2134.0	2137.6
35°	2354.5	2416.1	2124.8	2030.9	1940.2	1874.5	1945.3	2057.6	2130.4	2405.8	2357.1
37.5°	2761.2	2657.6	2419.2	2242.7	2184.8	2158.6	2196.1	2261.2	2418.7	2656.1	2739.7
40°	3001.8	2973.1	2648.4	2500.7	2277.1	2346.9	2326.3	2504.8	2635.1	2989.5	2997.2
42.5°	3369.5	3224.9	2933.1	2745.3	2544.3	2423.3	2551.5	2791.0	2948.4	3248.0	3389.5
45°	3660.3	3474.6	3249.5	3106.9	2853.0	2763.3	2809.5	3116.1	3313.6	3519.3	3705.4
47.5°	3981.9	3780.8	3555.7	3302.3	3054.6	3200.8	3119.2	3389.0	3581.8	3876.7	4051.1
50°	4386.0	4163.4	3875.2	3665.9	3501.8	3553.1	3540.3	3732.6	3970.6	4239.3	4437.3
52.5°	4831.2	4579.3	4301.4	4107.0	4037.8	3910.6	4076.7	4155.7	4331.1	4577.3	4809.6
55°	5142.5	4890.6	4722.4	4785.0	4766.5	4562.4	4708.1	4716.3	4631.7	4720.4	4954.2
57.5°	5094.3	4853.7	4830.6	5067.1	5420.4	5617.9	5392.7	4908.6	4591.6	4550.1	4797.8
60°	4454.2	4248.5	4459.8	4993.2	6022.5	6623.6	5756.9	4763.5	4241.4	4025.4	4264.4
62.5°	3069.5	2930.5	3368.5	4202.4	6094.8	7399.6	5743.5	4139.3	3289.5	2897.7	3083.3
65°	1455.0	1404.7	1774.5	2664.3	5076.8	7192.4	5017.8	2800.7	1893.5	1512.4	1554.5
67.5°	547.2	522.1	651.3	1177.0	3197.7	5704.6	3373.1	1381.6	732.4	569.3	588.8
70°	310.8	292.8	309.8	429.3	1287.3	3231.0	1455.0	473.9	311.3	283.6	302.1
72.5°	244.6	230.8	233.4	259.5	444.1	1268.3	470.8	270.3	226.2	214.9	231.3
75°	202.1	189.8	189.2	203.6	259.0	411.8	266.2	206.7	183.1	174.9	188.2
77.5°	160.5	153.3	155.4	166.7	185.7	230.3	192.8	167.2	150.3	140.5	149.8
80°	117.4	116.4	124.6	134.9	138.5	154.9	144.6	134.9	120.0	106.2	109.8
82.5°	76.9	77.4	92.8	101.0	99.5	99.0	103.6	103.1	89.8	70.3	70.3
85°	44.1	45.1	56.9	63.6	62.6	49.7	65.6	66.2	57.4	42.6	41.0
87.5°	14.4	18.0	24.6	26.2	25.1	13.8	25.1	27.7	25.1	18.0	15.9
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)