

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: P368691

Luminaire Tested: **MSA-SA4D-830-U-5WQ**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P368691
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-SA4D-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: 22426 lumens
Efficiency: N/A
Efficacy: 86.6 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type V - Short
BUG Rating: B5 - U0 - G3

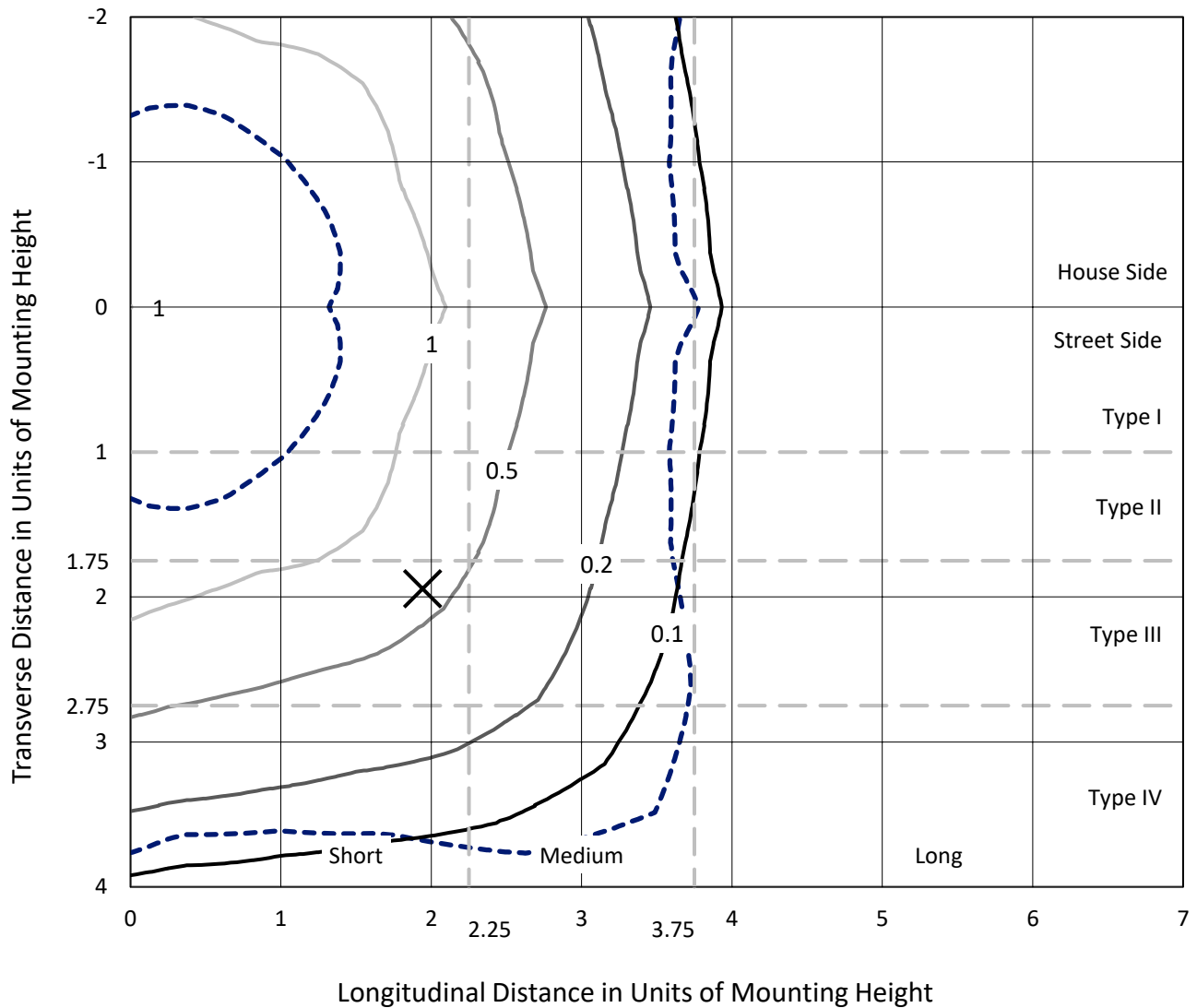
Input Watts (W): 259
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

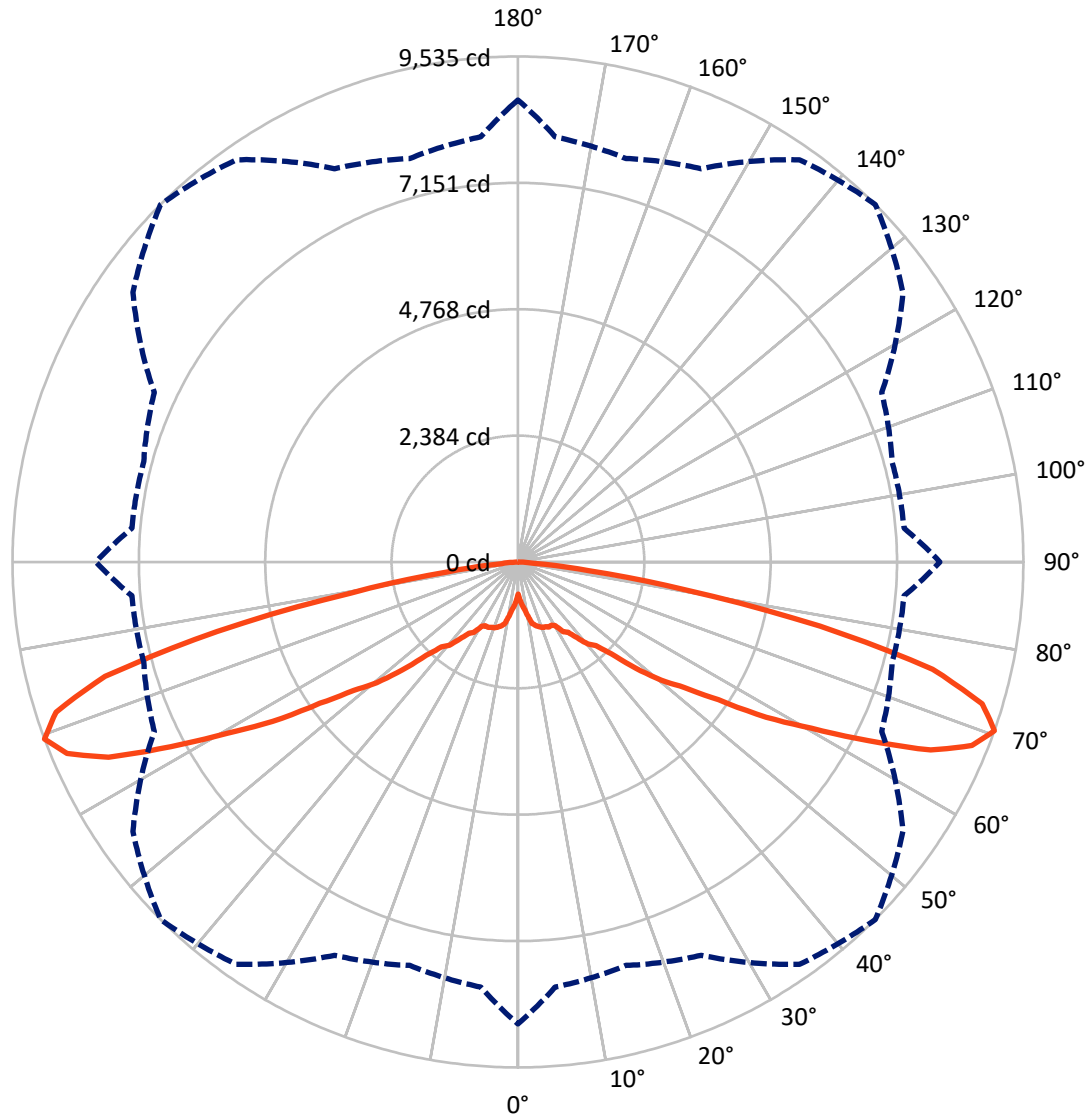
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.9 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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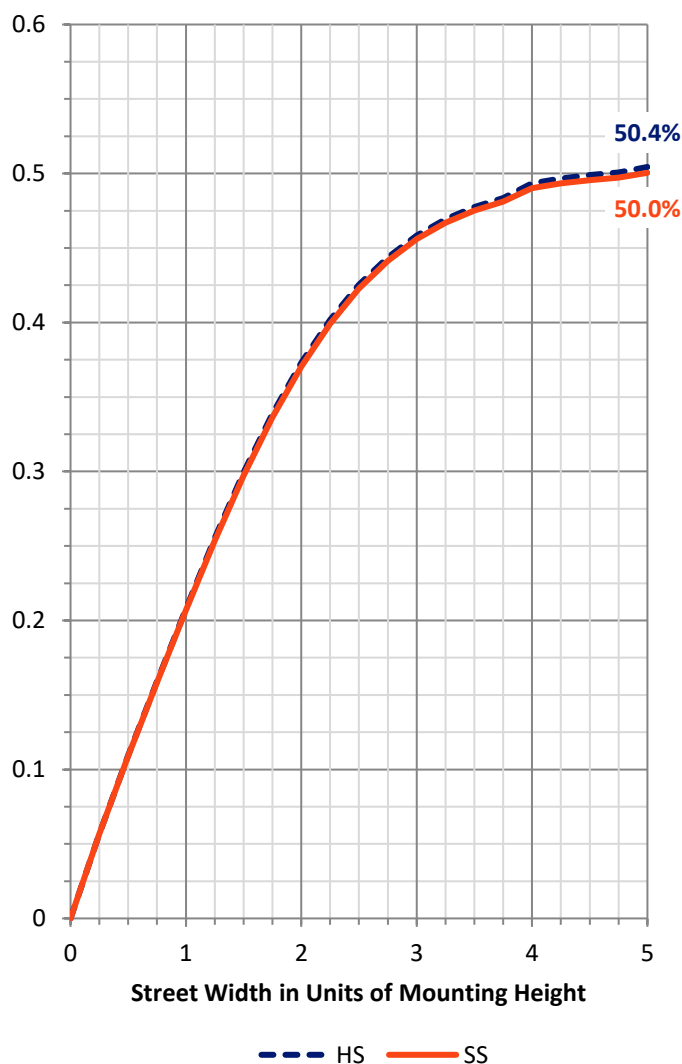
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	11213.0	0.0	11213.0
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	11213.0	0.0	11213.0
	% Fixture	50.0	0.0	50.0
Total	Lumens	22426.0	0.0	22426.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	88.2	0.4
10°-20°	353.0	1.6
20°-30°	667.4	3.0
30°-40°	1162.5	5.2
40°-50°	2222.4	9.9
50°-60°	4309.4	19.2
60°-70°	7546.0	33.6
70°-80°	5671.2	25.3
80°-90°	405.8	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°	22426.0	100.0
0°-180°	22426.0	100.0

Coefficient of Utilization

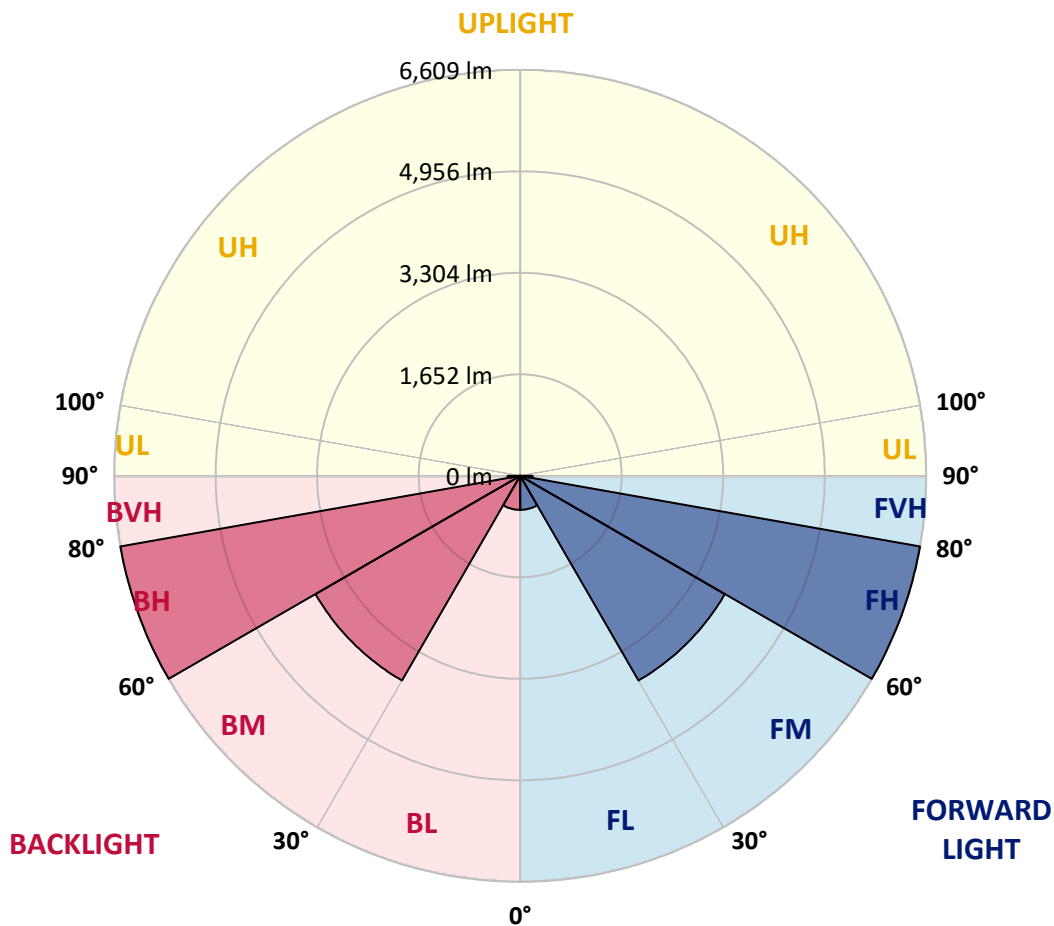


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	554.3	2.5			
FM (30°-60°)	3847.2	17.2			
FH (60°-80°)	6608.6	29.5			G3/7500
FVH (80°-90°)	202.9	0.9			G2/225
BL (0°-30°)	554.3	2.5	B2/1000		
BM (30°-60°)	3847.2	17.2	B3/5000		
BH (60°-80°)	6608.6	29.5	B5		G3/7500
BVH (80°-90°)	202.9	0.9			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B5-U0-G3
 Type V Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	606.4	606.4	606.4	606.4	606.4	606.4	606.4	606.4	606.4	606.4	606.4
2.5°	737.8	726.4	690.8	692.5	709.0	710.8	712.5	690.8	685.6	729.9	732.5
5°	937.0	910.9	884.8	874.3	858.7	815.2	863.0	868.2	878.7	912.6	928.3
7.5°	1070.1	1037.9	1002.2	980.5	937.8	902.2	941.3	973.5	994.4	1032.7	1054.4
10°	1095.3	1076.2	1074.4	1036.2	1028.3	1041.4	1038.8	1039.6	1071.0	1071.8	1084.9
12.5°	1174.5	1188.4	1161.4	1148.4	1156.2	1188.4	1162.3	1151.0	1158.8	1194.5	1179.7
15°	1278.0	1294.5	1253.7	1232.8	1211.9	1242.3	1215.4	1235.4	1260.6	1286.7	1273.7
17.5°	1392.9	1393.7	1338.0	1260.6	1278.9	1283.2	1273.7	1257.1	1329.3	1392.0	1385.9
20°	1455.5	1454.6	1358.9	1253.7	1307.6	1317.2	1308.5	1251.9	1360.7	1446.8	1444.2
22.5°	1519.9	1500.7	1385.9	1300.6	1320.6	1328.5	1308.5	1303.2	1385.9	1506.0	1505.1
25°	1554.7	1571.2	1445.1	1392.0	1375.5	1357.2	1374.6	1383.3	1462.5	1579.9	1546.0
27.5°	1663.4	1636.5	1462.5	1457.2	1422.4	1350.2	1410.3	1452.9	1457.2	1646.9	1681.7
30°	1761.7	1772.2	1540.8	1548.6	1485.1	1393.7	1486.8	1554.7	1567.7	1773.9	1770.4
32.5°	1866.1	1870.5	1679.9	1599.0	1572.1	1568.6	1532.9	1592.1	1694.7	1860.0	1867.0
35°	2024.5	2060.1	1804.4	1695.6	1661.7	1626.9	1658.2	1711.3	1807.0	2054.9	2037.5
37.5°	2387.3	2330.7	2074.9	1849.6	1827.0	1813.1	1838.3	1876.6	2072.3	2336.8	2417.7
40°	2640.4	2613.4	2265.5	2104.5	1961.8	2036.6	1977.5	2125.4	2287.2	2615.2	2667.4
42.5°	3032.8	2912.7	2555.2	2355.9	2208.0	2155.0	2188.0	2381.2	2587.3	2952.7	3055.4
45°	3409.5	3224.2	2917.9	2742.2	2517.7	2462.1	2506.4	2733.5	2971.9	3260.7	3441.7
47.5°	3794.0	3602.6	3265.9	3011.9	2828.3	2994.5	2849.2	3065.0	3302.5	3638.3	3799.2
50°	4193.3	3981.1	3648.7	3372.1	3356.4	3503.4	3329.5	3439.9	3660.0	4008.0	4197.7
52.5°	4651.8	4423.0	4090.7	3903.6	3940.2	3930.6	3895.8	3875.8	4092.4	4434.3	4659.7
55°	5197.3	4950.2	4684.9	4598.8	4699.7	4590.9	4642.3	4635.3	4666.6	4911.1	5174.7
57.5°	5856.8	5577.5	5311.3	5292.1	5421.8	5524.4	5433.1	5301.7	5246.9	5484.4	5786.3
60°	6687.6	6344.8	6052.5	5992.5	6362.2	6361.4	6278.7	5984.7	5963.8	6232.6	6596.3
62.5°	7605.4	7187.9	6868.6	6772.9	7352.3	7417.5	7160.0	6632.8	6740.7	6957.3	7388.8
65°	8385.0	7883.0	7585.4	7559.3	8267.5	8555.5	7986.5	7265.3	7300.1	7480.2	7947.4
67.5°	8893.0	8288.4	8051.8	8177.9	9058.3	9238.4	8709.5	7688.1	7564.6	7639.4	8197.9
70°	8714.7	8050.0	7879.5	8185.7	9262.8	9535.1	8865.2	7569.8	7307.0	7310.5	7959.5
72.5°	7363.6	6731.1	6812.0	7374.0	8779.1	9161.0	8144.8	6837.2	6299.6	6286.5	6875.5
75°	4869.3	4446.5	4765.8	5641.9	7298.3	8079.6	6748.5	5359.1	4684.9	4465.7	4920.7
77.5°	2129.7	2075.8	2344.6	3334.7	4975.5	5822.8	4834.5	3500.8	2548.2	2119.3	2315.0
80°	570.7	558.5	701.2	1265.0	2422.1	3206.8	2616.1	1396.3	729.1	530.7	562.9
82.5°	207.9	213.1	260.1	354.1	797.8	1350.2	869.1	408.0	275.8	226.2	226.2
85°	90.5	87.9	126.1	141.8	217.5	305.4	249.7	173.1	139.2	104.4	100.0
87.5°	24.4	30.4	42.6	44.4	56.5	46.1	66.1	60.9	52.2	36.5	29.6
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)