

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: P368581

Luminaire Tested: **MSA-SA4D-727-U-5WQ**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P368581
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-727-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: 23601 lumens
Efficiency: N/A
Efficacy: 91.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type V - Short
BUG Rating: B5 - U0 - G3

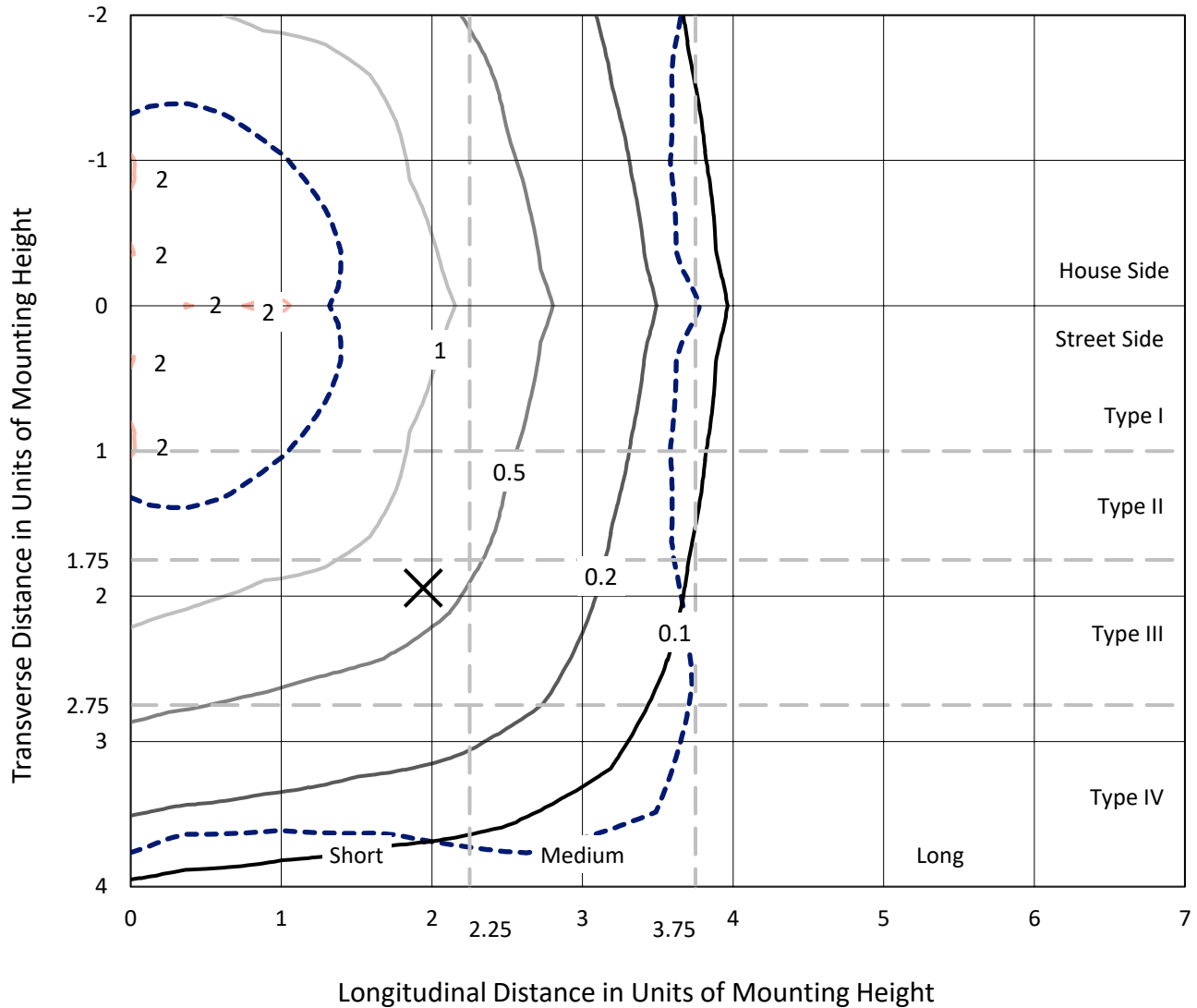
Input Watts (W): 259
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

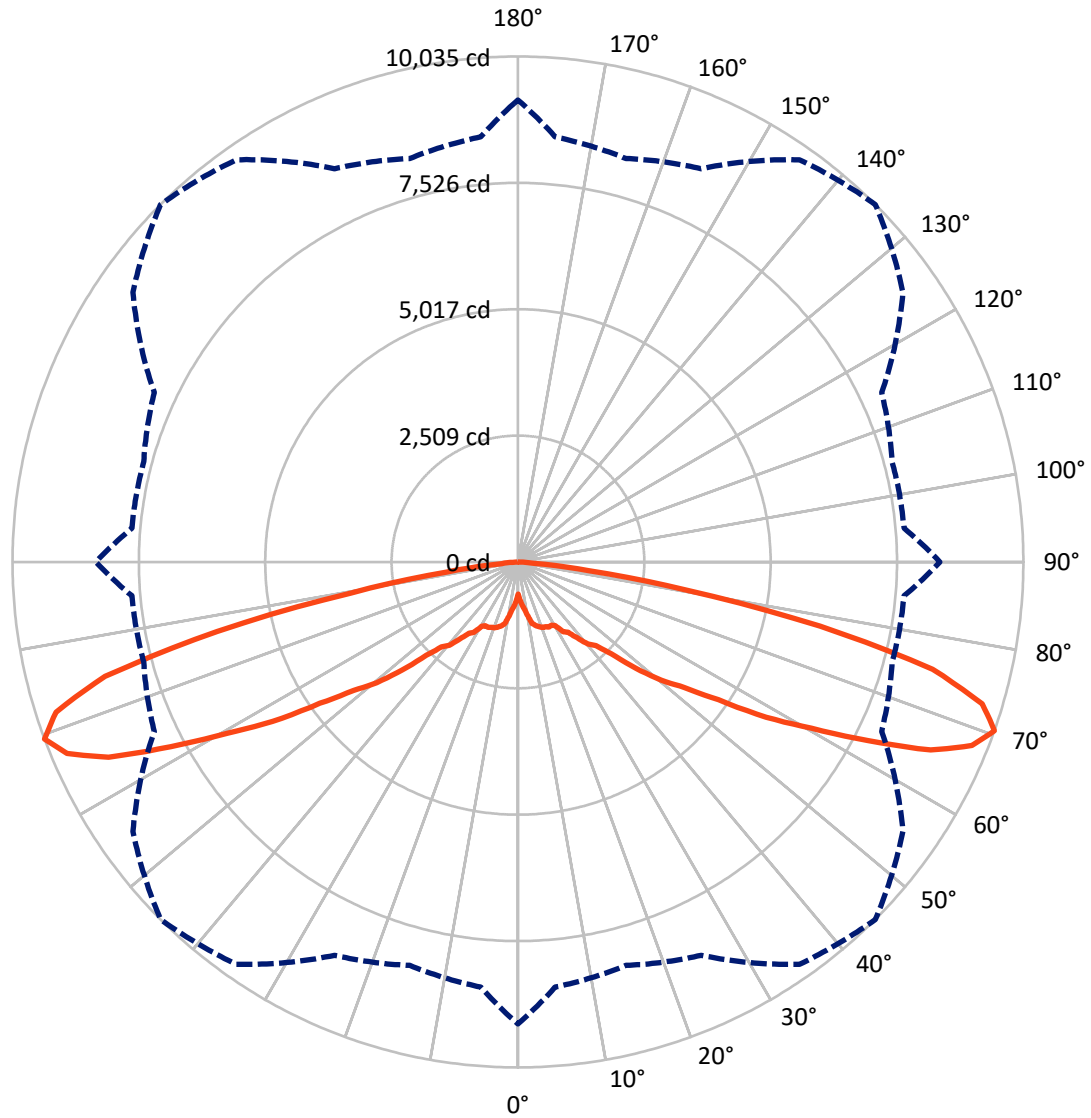
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2 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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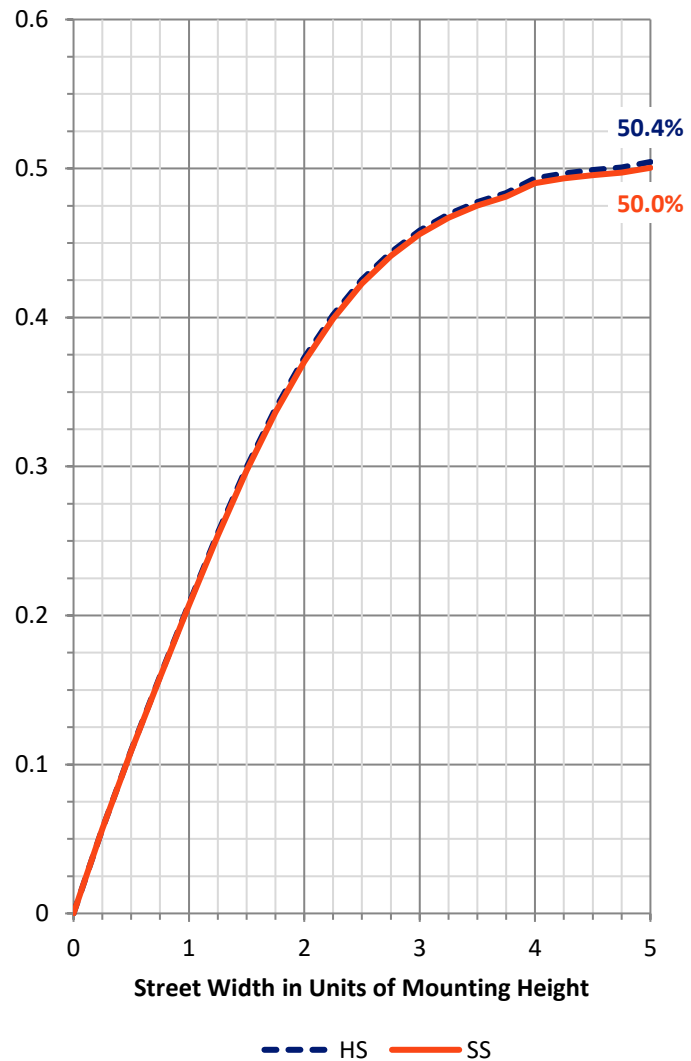
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	11800.5	0.0	11800.5
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	11800.5	0.0	11800.5
	% Fixture	50.0	0.0	50.0
Total	Lumens	23601.0	0.0	23601.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	92.8	0.4
10°-20°	371.5	1.6
20°-30°	702.4	3.0
30°-40°	1223.4	5.2
40°-50°	2338.9	9.9
50°-60°	4535.2	19.2
60°-70°	7941.4	33.6
70°-80°	5968.4	25.3
80°-90°	427.0	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°	23601.0	100.0
0°-180°	23601.0	100.0



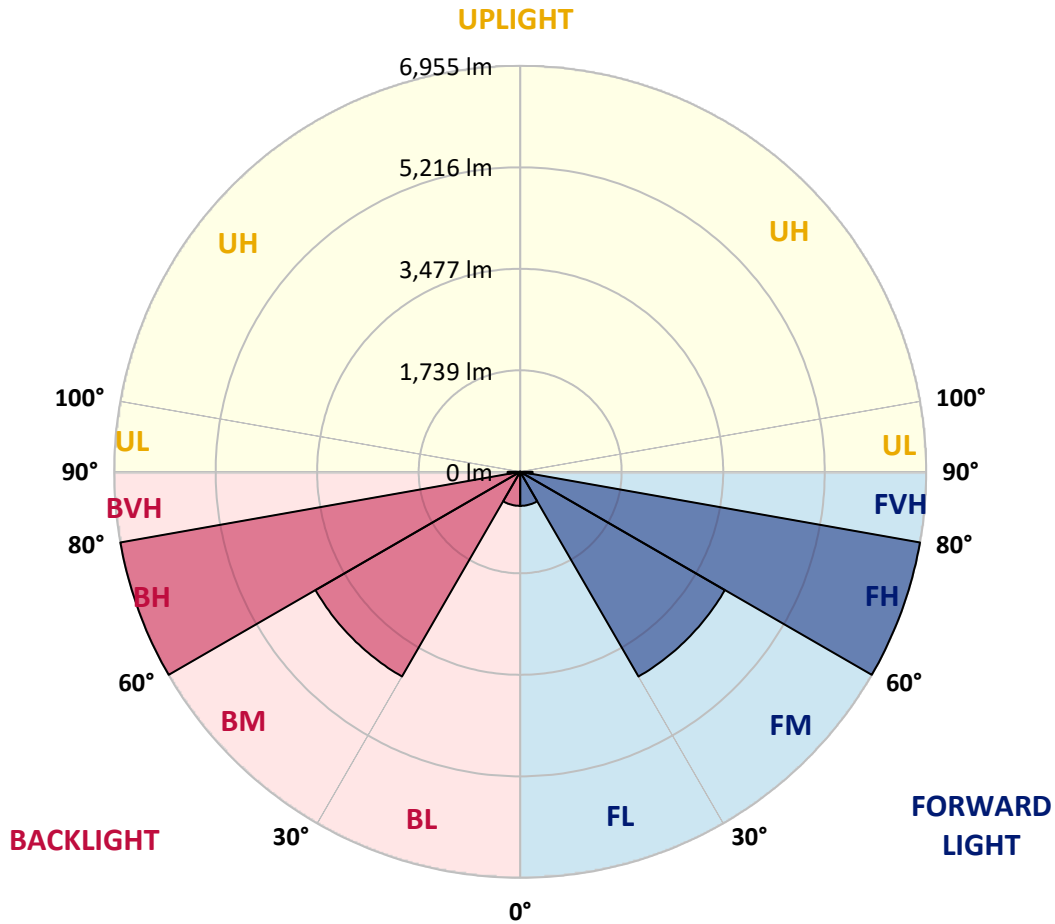
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	583.3	2.5			
FM (30°-60°)	4048.8	17.2			
FH (60°-80°)	6954.9	29.5			G3/7500
FVH (80°-90°)	213.5	0.9			G2/225
BL (0°-30°)	583.3	2.5	B2/1000		
BM (30°-60°)	4048.8	17.2	B3/5000		
BH (60°-80°)	6954.9	29.5	B5		G3/7500
BVH (80°-90°)	213.5	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°	638.2	638.2	638.2	638.2	638.2	638.2	638.2	638.2	638.2	638.2	638.2
2.5°	776.4	764.5	727.0	728.8	746.2	748.0	749.9	727.0	721.5	768.2	770.9
5°	986.1	958.6	931.1	920.2	903.7	857.9	908.2	913.7	924.7	960.4	976.9
7.5°	1126.2	1092.3	1054.7	1031.8	987.0	949.4	990.6	1024.5	1046.5	1086.8	1109.7
10°	1152.7	1132.6	1130.7	1090.4	1082.2	1095.9	1093.2	1094.1	1127.1	1128.0	1141.7
12.5°	1236.0	1250.7	1222.3	1208.6	1216.8	1250.7	1223.2	1211.3	1219.5	1257.1	1241.5
15°	1345.0	1362.4	1319.3	1297.4	1275.4	1307.4	1279.1	1300.1	1326.7	1354.1	1340.4
17.5°	1465.8	1466.7	1408.2	1326.7	1345.9	1350.5	1340.4	1323.0	1399.0	1464.9	1458.5
20°	1531.8	1530.8	1430.1	1319.3	1376.1	1386.2	1377.0	1317.5	1432.0	1522.6	1519.9
22.5°	1599.5	1579.4	1458.5	1368.8	1389.8	1398.1	1377.0	1371.5	1458.5	1584.9	1583.9
25°	1636.1	1653.5	1520.8	1464.9	1447.5	1428.3	1446.6	1455.8	1539.1	1662.7	1627.0
27.5°	1750.6	1722.2	1539.1	1533.6	1497.0	1421.0	1484.1	1529.0	1533.6	1733.2	1769.8
30°	1854.0	1865.0	1621.5	1629.7	1562.9	1466.7	1564.7	1636.1	1649.9	1866.9	1863.2
32.5°	1963.9	1968.5	1768.0	1682.8	1654.4	1650.8	1613.2	1675.5	1783.5	1957.5	1964.8
35°	2130.5	2168.1	1898.9	1784.5	1748.7	1712.1	1745.1	1800.9	1901.6	2162.6	2144.3
37.5°	2512.3	2452.8	2183.6	1946.5	1922.7	1908.1	1934.6	1974.9	2180.9	2459.2	2544.4
40°	2778.8	2750.4	2384.2	2214.8	2064.6	2143.4	2081.1	2236.7	2407.0	2752.2	2807.1
42.5°	3191.7	3065.3	2689.0	2479.4	2323.7	2267.9	2302.7	2505.9	2722.9	3107.5	3215.5
45°	3588.1	3393.1	3070.8	2885.9	2649.7	2591.1	2637.8	2876.7	3127.6	3431.6	3622.0
47.5°	3992.8	3791.4	3437.1	3169.7	2976.5	3151.4	2998.5	3225.6	3475.5	3828.9	3998.3
50°	4413.1	4189.7	3839.9	3548.8	3532.3	3687.0	3503.9	3620.2	3851.8	4218.0	4417.6
52.5°	4895.6	4654.8	4305.0	4108.2	4146.6	4136.6	4099.9	4078.9	4306.9	4666.7	4903.8
55°	5469.6	5209.6	4930.4	4839.7	4945.9	4831.5	4885.5	4878.2	4911.1	5168.4	5445.8
57.5°	6163.6	5869.7	5589.6	5569.4	5705.8	5813.9	5717.7	5579.5	5521.8	5771.8	6089.5
60°	7038.0	6677.3	6369.6	6306.5	6695.6	6694.7	6607.7	6298.2	6276.2	6559.2	6941.9
62.5°	8003.9	7564.5	7228.4	7127.7	7737.5	7806.2	7535.2	6980.3	7093.9	7321.8	7776.0
65°	8824.3	8296.0	7982.9	7955.4	8700.7	9003.7	8405.0	7645.9	7682.6	7872.1	8363.8
67.5°	9359.0	8722.7	8473.6	8606.4	9532.9	9722.5	9165.8	8090.9	7960.9	8039.6	8627.4
70°	9171.3	8471.8	8292.3	8614.6	9748.1	10034.7	9329.7	7966.4	7689.9	7693.6	8376.6
72.5°	7749.4	7083.8	7168.9	7760.4	9239.0	9641.0	8571.6	7195.5	6629.7	6615.9	7235.8
75°	5124.5	4679.5	5015.5	5937.5	7680.7	8502.9	7102.1	5639.9	4930.4	4699.6	5178.5
77.5°	2241.3	2184.6	2467.5	3509.4	5236.2	6127.9	5087.8	3684.3	2681.7	2230.3	2436.3
80°	600.6	587.8	738.0	1331.2	2549.0	3374.8	2753.1	1469.5	767.2	558.5	592.4
82.5°	218.8	224.3	273.8	372.6	839.6	1421.0	914.7	429.4	290.2	238.0	238.0
85°	95.2	92.5	132.8	149.2	228.9	321.4	262.8	182.2	146.5	109.9	105.3
87.5°	25.6	32.0	44.9	46.7	59.5	48.5	69.6	64.1	54.9	38.5	31.1
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)