

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: P368141

Luminaire Tested: **MSA-SA3D-760-U-5WQ**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P368141
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-SA3D-760-U-5WQ
Description: MESA POST TOP DECORATIVE LUMINAIRE. (3) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE V WIDE OPTICS.
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 21352 lumens
Efficiency: N/A
Efficacy: 111.2 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type V - Short
BUG Rating: B5 - U0 - G3

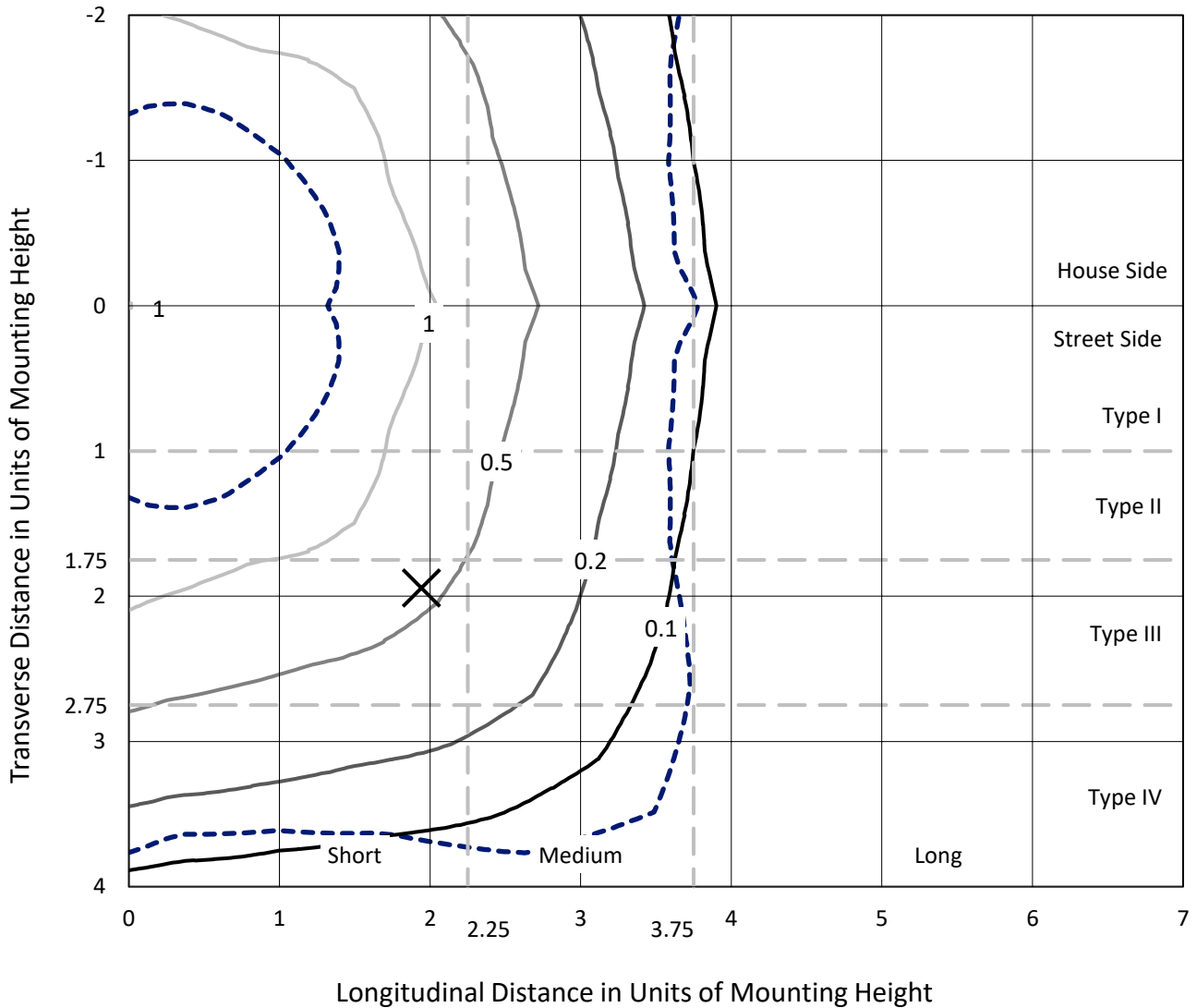
Input Watts (W): 192
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

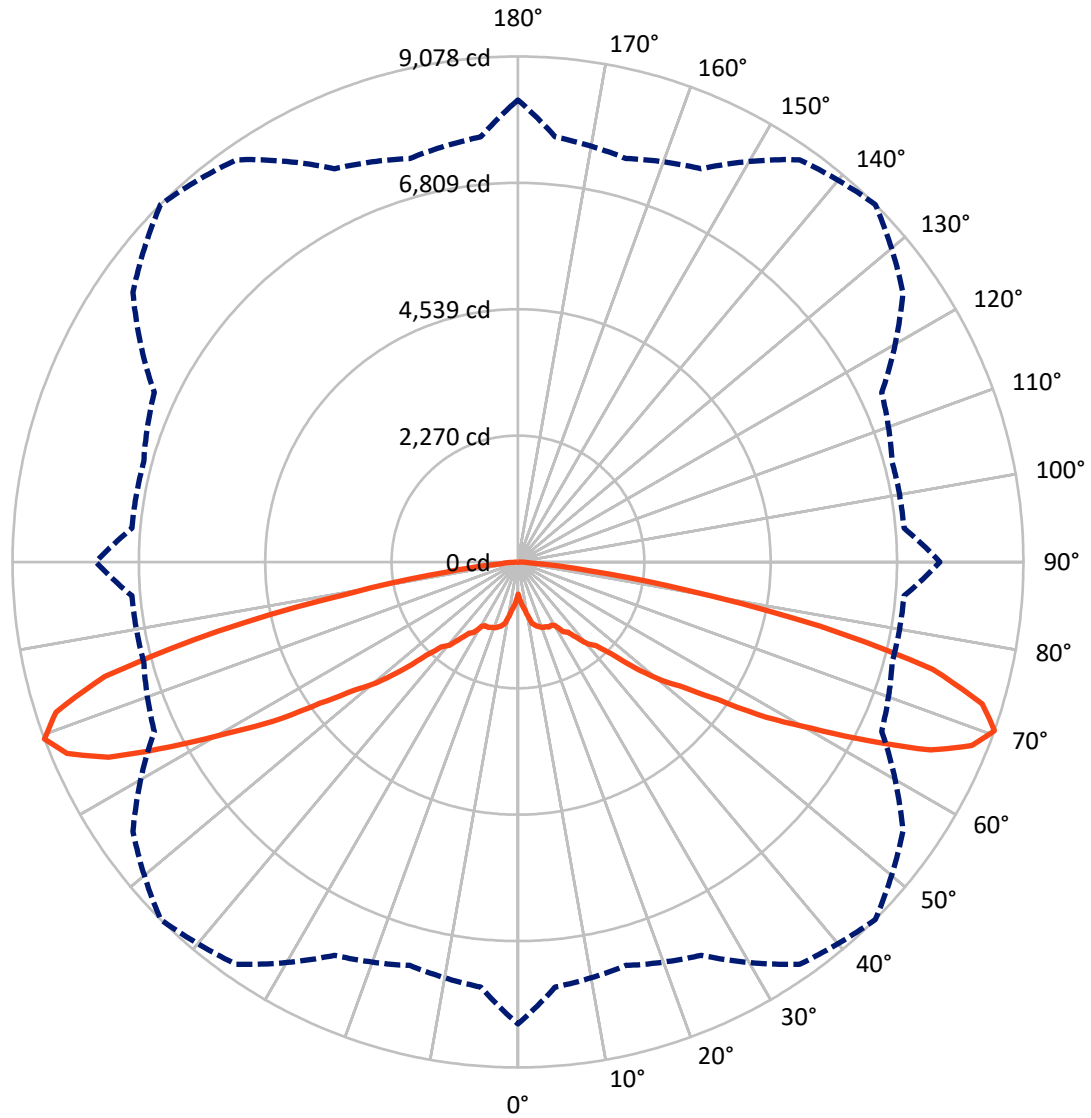
✕ Max cd
 - - - 1/2 Max cd



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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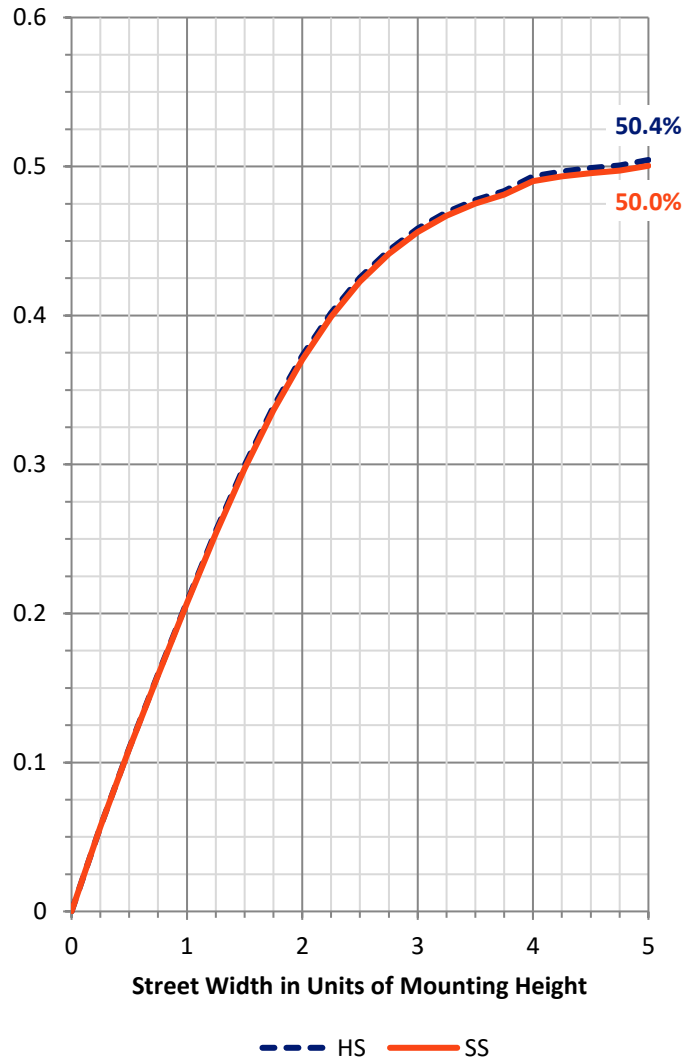
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	10676.0	0.0	10676.0
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	10676.0	0.0	10676.0
	% Fixture	50.0	0.0	50.0
Total	Lumens	21352.0	0.0	21352.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	84.0	0.4
10°-20°	336.1	1.6
20°-30°	635.5	3.0
30°-40°	1106.9	5.2
40°-50°	2116.0	9.9
50°-60°	4103.0	19.2
60°-70°	7184.6	33.6
70°-80°	5399.6	25.3
80°-90°	386.4	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°	21352.0	100.0
0°-180°	21352.0	100.0



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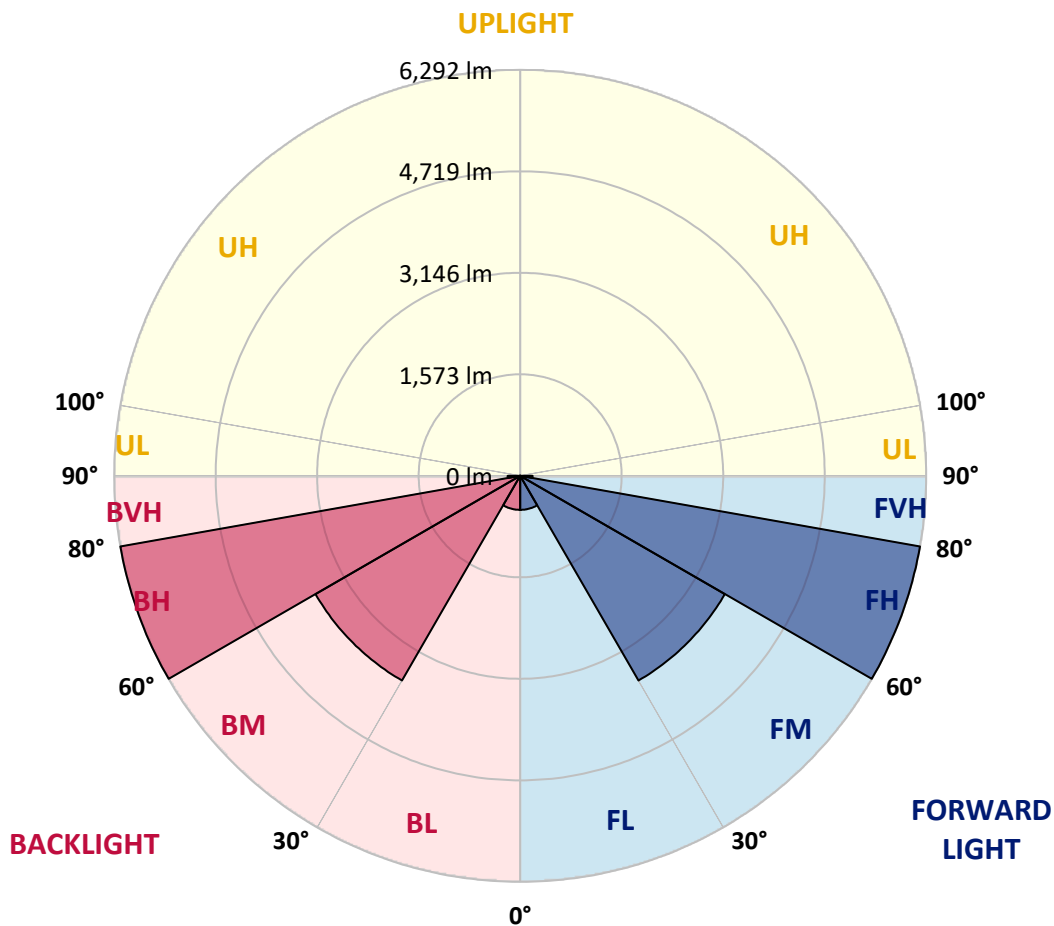
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	527.8	2.5			
FM (30°-60°)	3663.0	17.2			
FH (60°-80°)	6292.1	29.5			G3/7500
FVH (80°-90°)	193.2	0.9			G2/225
BL (0°-30°)	527.8	2.5	B2/1000		
BM (30°-60°)	3663.0	17.2	B3/5000		
BH (60°-80°)	6292.1	29.5	B5		G3/7500
BVH (80°-90°)	193.2	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°	577.3	577.3	577.3	577.3	577.3	577.3	577.3	577.3	577.3	577.3	577.3
2.5°	702.4	691.7	657.7	659.3	675.1	676.7	678.4	657.7	652.7	695.0	697.4
5°	892.1	867.3	842.4	832.5	817.6	776.1	821.7	826.7	836.6	868.9	883.8
7.5°	1018.8	988.2	954.2	933.5	892.9	859.0	896.2	926.9	946.8	983.2	1003.9
10°	1042.9	1024.6	1023.0	986.5	979.1	991.5	989.0	989.8	1019.7	1020.5	1032.9
12.5°	1118.2	1131.5	1105.8	1093.4	1100.8	1131.5	1106.6	1095.9	1103.3	1137.3	1123.2
15°	1216.8	1232.5	1193.6	1173.7	1153.9	1182.8	1157.2	1176.2	1200.2	1225.1	1212.7
17.5°	1326.1	1327.0	1274.0	1200.2	1217.6	1221.8	1212.7	1196.9	1265.7	1325.3	1319.5
20°	1385.8	1385.0	1293.8	1193.6	1245.0	1254.1	1245.8	1192.0	1295.5	1377.5	1375.0
22.5°	1447.1	1428.9	1319.5	1238.3	1257.4	1264.9	1245.8	1240.8	1319.5	1433.8	1433.0
25°	1480.2	1496.0	1375.8	1325.3	1309.6	1292.2	1308.8	1317.0	1392.4	1504.2	1471.9
27.5°	1583.8	1558.1	1392.4	1387.4	1354.3	1285.6	1342.7	1383.3	1387.4	1568.0	1601.2
30°	1677.4	1687.3	1467.0	1474.4	1414.0	1327.0	1415.6	1480.2	1492.6	1689.0	1685.6
32.5°	1776.8	1780.9	1599.5	1522.5	1496.8	1493.5	1459.5	1515.8	1613.6	1771.0	1777.6
35°	1927.5	1961.5	1717.9	1614.4	1582.1	1549.0	1578.8	1629.3	1720.4	1956.5	1939.9
37.5°	2272.9	2219.1	1975.6	1761.0	1739.5	1726.2	1750.3	1786.7	1973.1	2224.9	2301.9
40°	2514.0	2488.3	2157.0	2003.7	1867.9	1939.1	1882.8	2023.6	2177.7	2489.9	2539.6
42.5°	2887.5	2773.2	2432.8	2243.1	2102.3	2051.8	2083.2	2267.1	2463.4	2811.3	2909.1
45°	3246.2	3069.8	2778.2	2610.9	2397.2	2344.2	2386.4	2602.6	2829.6	3104.6	3276.9
47.5°	3612.3	3430.1	3109.5	2867.7	2692.9	2851.1	2712.8	2918.2	3144.3	3464.1	3617.3
50°	3992.5	3790.4	3474.0	3210.6	3195.7	3335.7	3170.0	3275.2	3484.8	3816.1	3996.7
52.5°	4429.1	4211.2	3894.8	3716.7	3751.5	3742.4	3709.2	3690.2	3896.4	4222.0	4436.5
55°	4948.4	4713.2	4460.5	4378.5	4474.6	4371.1	4419.9	4413.3	4443.1	4675.9	4926.9
57.5°	5576.3	5310.4	5056.9	5038.7	5162.1	5259.9	5172.9	5047.8	4995.6	5221.8	5509.2
60°	6367.3	6041.0	5762.7	5705.5	6057.5	6056.7	5978.0	5698.0	5678.2	5934.1	6280.4
62.5°	7241.2	6843.6	6539.6	6448.5	7000.2	7062.3	6817.1	6315.2	6417.9	6624.1	7035.0
65°	7983.4	7505.5	7222.2	7197.3	7871.6	8145.7	7604.0	6917.3	6950.5	7121.9	7566.7
67.5°	8467.1	7891.5	7666.1	7786.3	8624.5	8796.0	8292.4	7319.9	7202.3	7273.5	7805.3
70°	8297.3	7664.5	7502.1	7793.7	8819.2	9078.4	8440.6	7207.3	6957.1	6960.4	7578.3
72.5°	7010.9	6408.8	6485.8	7020.9	8358.6	8722.3	7754.8	6509.8	5997.9	5985.5	6546.3
75°	4636.1	4233.6	4537.6	5371.7	6948.8	7692.7	6425.3	5102.5	4460.5	4251.8	4685.0
77.5°	2027.7	1976.4	2232.3	3175.0	4737.2	5544.0	4603.0	3333.2	2426.2	2017.8	2204.2
80°	543.4	531.8	667.6	1204.4	2306.1	3053.2	2490.8	1329.5	694.1	505.3	535.9
82.5°	198.0	202.9	247.7	337.1	759.6	1285.6	827.5	388.5	262.6	215.4	215.4
85°	86.1	83.7	120.1	135.0	207.1	290.7	237.7	164.8	132.5	99.4	95.3
87.5°	23.2	29.0	40.6	42.2	53.8	43.9	63.0	58.0	49.7	34.8	28.2
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)