

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: P366739

Luminaire Tested: **MSA-SA1B-727-U-SL4-HSS**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P366739
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-21)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA1B-727-U-SL4-HSS
Description: MESA POST TOP DECORATIVE LUMINAIRE. (1) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

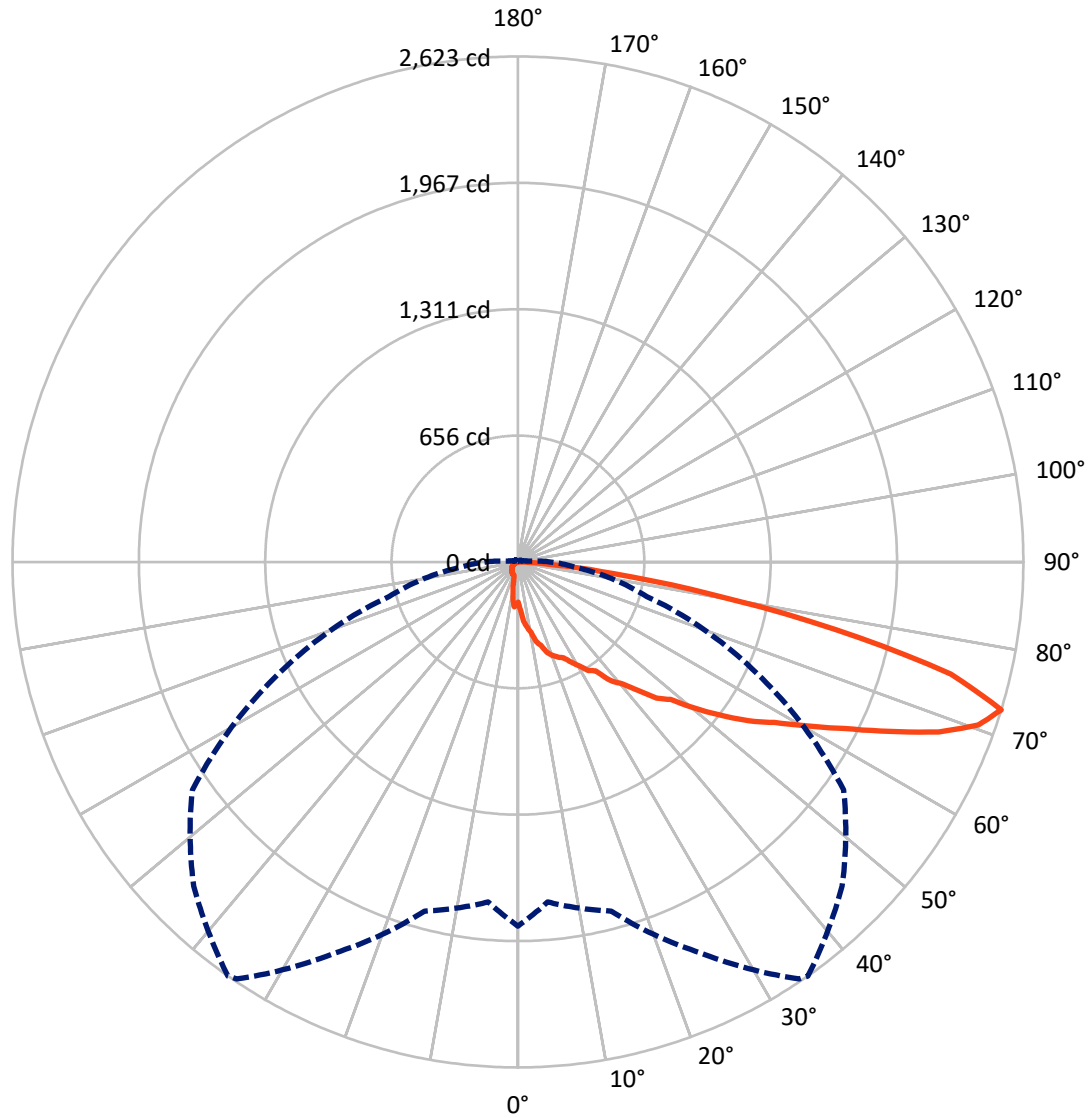
Lumens per Lamp: N/A
Luminaire Lumens: 3503 lumens
Efficiency: N/A
Efficacy: 79.6 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B0 - U0 - G1

Input Watts (W): 44
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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Luminous Intensity Polar Plot



— Vertical Plane Through 35-Deg Lateral - - - Horizontal Cone Through 72.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	273.2	0.0	273.2
	% Fixture	7.8	0.0	7.8
Street Side	Lumens	3229.8	0.0	3229.8
	% Fixture	92.2	0.0	92.2
Total	Lumens	3503.0	0.0	3503.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	26.6	0.8
10°-20°	89.6	2.6
20°-30°	163.3	4.7
30°-40°	281.6	8.0
40°-50°	500.6	14.3
50°-60°	747.0	21.3
60°-70°	954.4	27.2
70°-80°	664.0	19.0
80°-90°	76.0	2.2
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°	3503.0	100.0
0°-180°	3503.0	100.0

Coefficient of Utilization

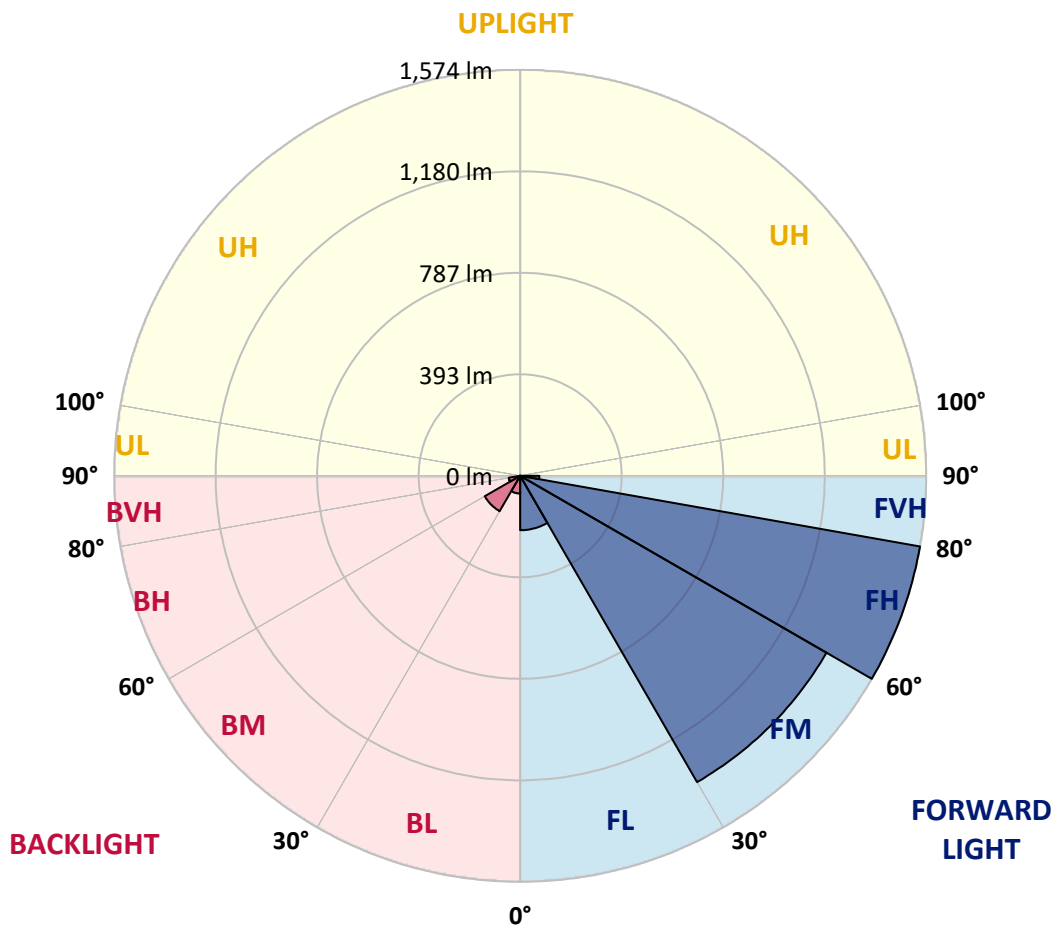


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	210.8	6.0			
FM (30°-60°)	1370.7	39.1			
FH (60°-80°)	1573.6	44.9			G1/1800
FVH (80°-90°)	74.7	2.1			G1/100
BL (0°-30°)	68.7	2.0	B0/110		
BM (30°-60°)	158.4	4.5	B0/220		
BH (60°-80°)	44.8	1.3	B0/110		G0/110
BVH (80°-90°)	1.3	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B0-U0-G1
 Type IV Short





REPORT NUMBER: P366739
 CATALOG NUMBER: MSA-SA1B-727-U-SL4-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	34°	35°	45°	55°	65°	75°	85°
0°	208.7	208.7	208.7	208.7	208.7	208.7	208.7	208.7	208.7	208.7	208.7
2.5°	265.6	255.2	238.3	239.5	247.1	248.6	250.9	244.9	239.7	230.3	248.5
5°	340.2	325.2	315.7	312.7	308.3	308.7	298.0	301.8	300.8	307.6	315.9
7.5°	382.3	374.0	362.1	358.7	342.5	340.7	327.5	345.3	347.1	344.6	358.2
10°	399.0	388.1	389.5	377.0	368.9	371.0	373.1	374.6	376.8	379.1	362.6
12.5°	408.9	410.8	430.0	417.0	425.1	425.1	439.4	424.2	424.7	408.2	411.0
15°	453.3	464.0	455.4	455.2	446.4	448.7	465.2	453.3	459.4	454.5	435.5
17.5°	508.9	511.0	494.7	487.4	495.4	495.5	488.5	488.0	466.5	502.8	479.7
20°	526.7	538.7	515.4	487.3	520.2	518.6	518.1	509.8	474.0	524.4	505.4
22.5°	575.1	558.0	542.2	523.7	536.6	536.6	534.6	516.5	502.6	522.5	530.6
25°	590.3	592.4	571.8	565.8	566.1	550.3	548.9	541.1	527.8	561.7	545.5
27.5°	642.4	641.5	592.0	608.8	587.5	587.6	548.7	566.1	568.4	563.7	581.8
30°	693.6	707.9	633.2	654.4	632.0	625.3	587.3	602.8	606.8	601.4	624.3
32.5°	759.0	779.9	707.4	686.6	652.4	671.5	645.2	608.6	628.7	677.4	690.3
35°	828.2	838.4	761.1	732.0	693.5	693.3	692.4	695.4	717.6	772.5	783.4
37.5°	952.5	928.4	858.5	791.9	800.5	781.3	768.0	782.0	805.1	895.6	942.3
40°	1021.9	1004.4	906.0	866.6	823.8	830.8	867.1	865.5	927.0	1021.7	1091.6
42.5°	1089.3	1072.8	975.9	944.0	889.1	908.3	924.1	944.2	1070.1	1223.0	1261.4
45°	1149.4	1100.8	1032.4	1033.7	1005.2	1007.4	1035.4	1053.9	1236.0	1392.7	1419.7
47.5°	1185.7	1145.7	1080.2	1078.9	1077.2	1066.4	1198.3	1215.2	1368.3	1554.4	1556.9
50°	1236.7	1186.7	1129.3	1130.4	1171.0	1193.8	1351.2	1349.4	1495.9	1689.3	1632.4
52.5°	1300.3	1239.2	1176.0	1223.0	1285.8	1322.8	1450.7	1502.8	1633.1	1774.0	1662.0
55°	1381.6	1305.2	1244.3	1304.5	1441.7	1456.0	1548.1	1658.1	1782.6	1860.4	1671.5
57.5°	1477.1	1385.9	1336.6	1433.6	1570.4	1570.8	1689.8	1823.6	1874.4	1895.7	1660.8
60°	1579.9	1473.6	1423.9	1511.3	1712.4	1726.8	1847.4	1915.0	1967.5	1913.5	1641.6
62.5°	1670.4	1553.0	1514.4	1617.1	1868.0	1902.2	1984.8	1975.1	2034.8	1935.8	1592.8
65°	1778.2	1655.8	1630.5	1782.1	2071.2	2118.3	2139.0	2081.6	2057.3	1918.6	1465.8
67.5°	1884.9	1770.5	1769.8	1965.1	2337.7	2353.9	2332.0	2231.8	2031.1	1766.4	1233.2
70°	1960.1	1837.2	1883.5	2165.4	2579.8	2534.4	2442.4	2302.8	1841.6	1353.8	805.6
72.5°	1889.5	1771.0	1875.4	2236.8	2609.7	2622.8	2378.5	2062.8	1368.3	692.4	291.6
75°	1435.9	1363.3	1628.4	1984.4	2317.1	2320.1	1985.3	1454.9	673.7	188.1	80.7
77.5°	723.2	700.2	1030.7	1408.8	1690.5	1685.6	1364.0	779.4	216.8	62.5	40.7
80°	366.1	347.6	438.7	760.0	1003.9	1011.3	778.9	349.0	109.4	34.0	28.2
82.5°	224.9	213.4	240.0	343.9	487.3	499.1	295.5	221.0	67.8	20.1	25.7
85°	43.5	45.8	137.9	172.2	194.6	190.0	87.5	181.9	20.4	12.0	18.7
87.5°	0.0	0.7	31.9	56.2	56.4	50.0	19.9	40.3	2.8	3.3	2.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P366739
 CATALOG NUMBER: MSA-SA1B-727-U-SL4-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	208.7	208.7	208.7	208.7	208.7	208.7	208.7	208.7	208.7	208.7	208.7
2.5°	251.5	248.8	226.8	224.3	224.9	221.2	219.9	212.2	210.3	222.2	224.3
5°	312.4	294.8	274.4	267.0	255.5	236.1	233.3	228.4	222.9	225.1	223.5
7.5°	349.7	326.3	304.5	265.6	233.3	205.2	200.6	192.1	183.7	183.8	189.3
10°	355.7	336.0	305.9	258.5	221.7	186.5	155.8	133.7	123.6	114.6	117.3
12.5°	390.4	372.1	316.6	256.4	204.8	149.9	109.7	88.0	78.5	75.4	75.0
15°	418.2	403.8	334.9	249.9	167.3	105.5	78.5	72.2	70.4	73.4	72.6
17.5°	459.6	433.5	333.0	222.9	127.5	80.1	72.4	71.5	73.6	75.4	75.9
20°	477.7	440.2	319.8	180.7	95.4	73.4	70.6	68.9	72.7	78.0	77.0
22.5°	496.1	451.7	304.3	147.9	76.8	70.3	68.7	67.3	70.3	75.4	76.6
25°	504.3	470.0	287.0	115.5	71.3	66.6	65.5	66.0	68.5	73.1	72.6
27.5°	546.1	472.1	254.1	91.2	69.0	63.9	63.9	65.2	65.2	71.3	70.8
30°	572.1	507.9	227.3	76.8	66.4	60.2	62.3	62.9	62.0	68.7	69.2
32.5°	617.9	517.7	201.3	70.4	62.2	59.7	59.3	59.7	60.4	66.9	67.1
35°	688.4	566.3	165.7	68.0	60.0	57.1	54.6	56.5	58.3	63.0	63.9
37.5°	826.1	616.2	135.1	66.0	59.0	54.6	53.7	53.4	56.5	62.0	63.7
40°	937.5	704.4	109.9	64.5	56.9	53.2	50.9	51.1	53.9	57.9	60.6
42.5°	1095.3	768.1	93.2	62.0	53.9	50.2	47.5	49.1	50.4	54.6	56.4
45°	1227.0	817.6	82.1	60.4	50.9	47.4	45.3	47.0	45.8	47.9	50.4
47.5°	1331.8	860.8	73.8	56.5	49.0	45.8	43.1	42.6	40.5	41.0	43.3
50°	1389.4	853.5	66.9	52.7	46.5	44.2	40.5	36.8	34.0	33.8	35.2
52.5°	1409.8	815.0	61.3	49.3	43.5	40.7	36.5	31.3	28.5	27.6	28.9
55°	1415.5	759.5	56.2	45.6	40.7	36.3	31.9	26.4	23.4	22.0	23.2
57.5°	1397.1	674.1	51.2	42.1	37.3	32.0	27.3	21.7	18.8	17.1	18.1
60°	1351.9	565.6	46.8	37.7	33.8	28.4	23.1	17.4	14.4	12.9	13.4
62.5°	1251.7	443.4	42.1	33.6	30.1	24.8	19.4	13.7	10.9	9.5	9.7
65°	1099.2	330.5	36.6	29.8	26.8	21.5	15.5	10.6	8.3	7.0	6.9
67.5°	875.7	224.0	31.2	25.7	23.8	18.1	12.3	8.3	6.5	5.6	5.3
70°	514.7	112.9	25.9	22.2	20.4	15.1	9.7	6.7	6.0	5.3	4.9
72.5°	169.8	48.8	20.3	18.3	16.9	12.2	7.6	6.2	5.8	5.1	4.8
75°	59.2	28.2	15.0	14.1	13.4	9.2	6.3	5.6	5.6	4.9	4.4
77.5°	38.7	21.8	11.1	10.2	10.0	6.7	5.5	5.3	4.9	4.1	3.3
80°	32.2	12.3	7.7	7.2	7.0	4.2	4.4	3.9	3.0	1.8	0.7
82.5°	29.8	7.4	4.1	4.4	4.1	1.6	2.5	2.1	1.6	0.7	0.0
85°	17.4	3.3	2.3	2.3	1.8	0.4	1.2	1.2	0.7	0.2	0.0
87.5°	1.9	1.6	1.2	1.2	0.9	0.0	0.5	0.4	0.0	0.0	0.0
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)