

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: P367524

Luminaire Tested: **MSA-SA2D-727-U-5NQ**

Issue Date: 12/2/2019

**Test Information**

Test Method: LM-79-08  
Report Number: P367524  
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-SA2D-727-U-5NQ  
Description: MESA POST TOP DECORATIVE LUMINAIRE. (2) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE V NARROW OPTICS.  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 11542 lumens  
Efficiency: N/A  
Efficacy: 89.5 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type V - Short  
BUG Rating: B3 - U0 - G1

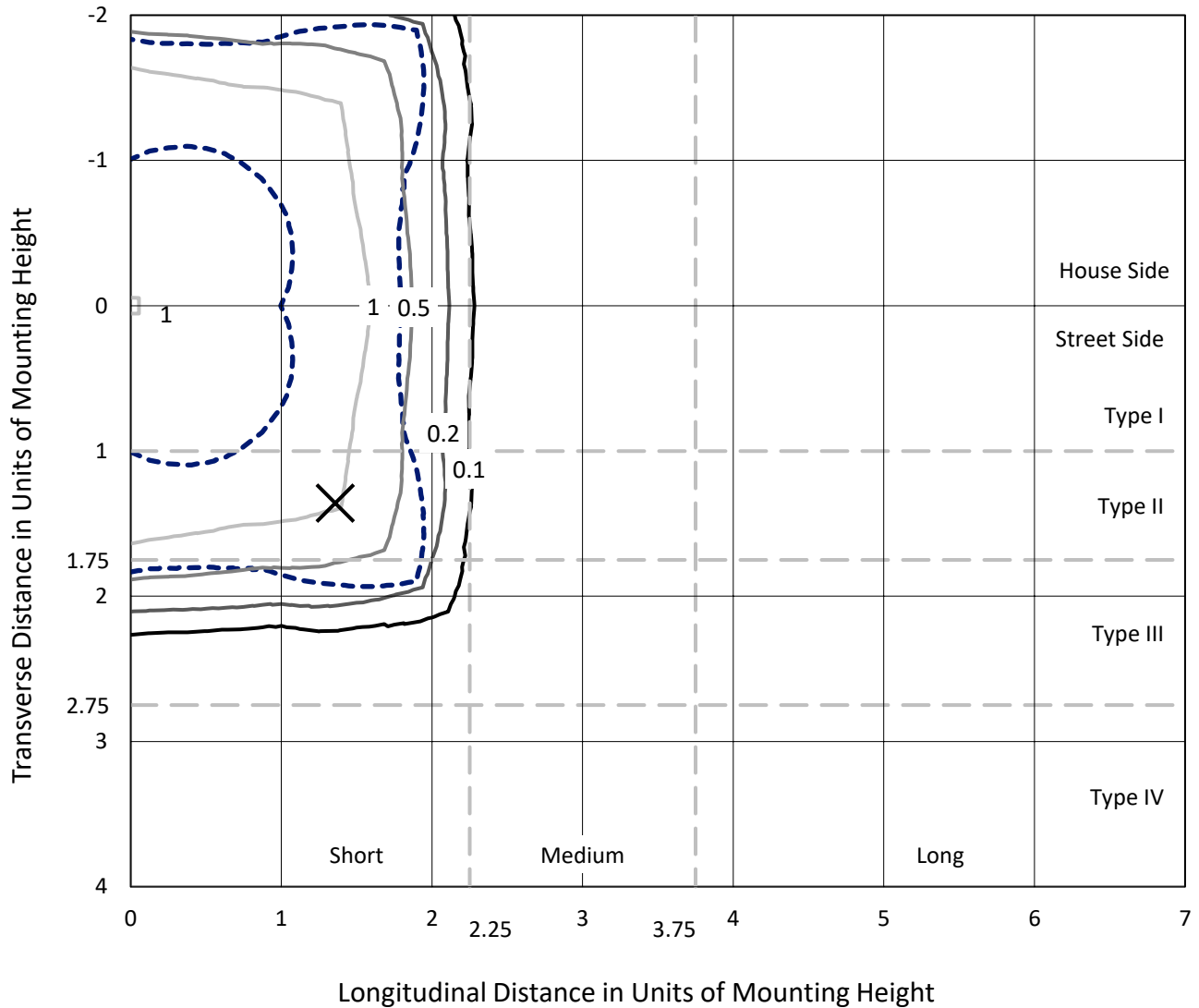
Input Watts (W): 129  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

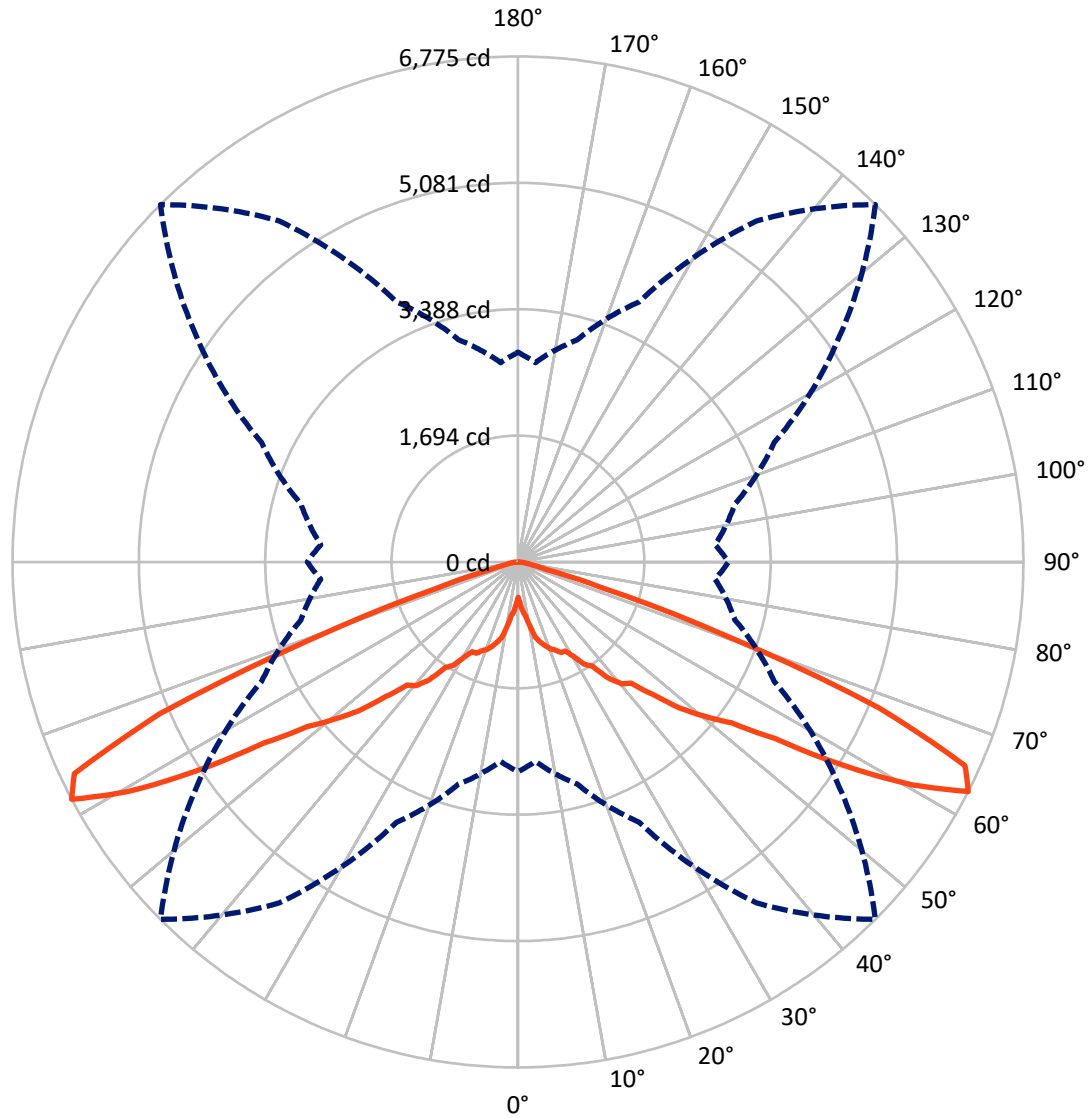
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2 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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CATALOG NUMBER: MSA-SA2D-727-U-5NQ

**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	5771.0	0.0	5771.0
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	5771.0	0.0	5771.0
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	11542.0	0.0	11542.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	71.1	0.6
10°-20°	313.6	2.7
20°-30°	657.3	5.7
30°-40°	1238.4	10.7
40°-50°	2247.7	19.5
50°-60°	3797.9	32.9
60°-70°	2839.2	24.6
70°-80°	317.6	2.8
80°-90°	59.1	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°	11542.0	100.0
0°-180°	11542.0	100.0

**Coefficient of Utilization**



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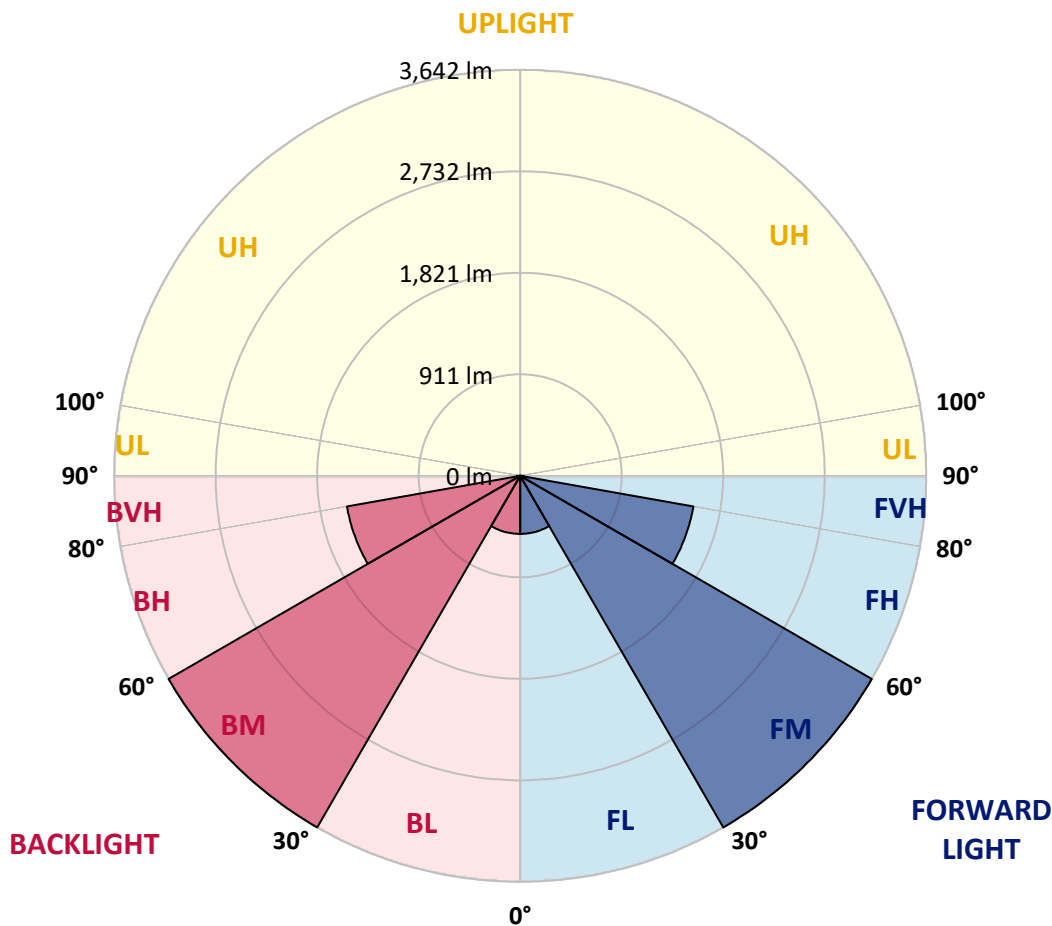
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	521.0	4.5			
FM (30°-60°)	3642.0	31.6			
FH (60°-80°)	1578.4	13.7			G1/1800
FVH (80°-90°)	29.5	0.3			G1/100
BL (0°-30°)	521.0	4.5	B2/1000		
BM (30°-60°)	3642.0	31.6	B3/5000		
BH (60°-80°)	1578.4	13.7	B3/2500		G1/1800
BVH (80°-90°)	29.5	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°	471.9	471.9	471.9	471.9	471.9	471.9	471.9	471.9	471.9	471.9	471.9
2.5°	573.8	563.5	527.3	540.0	553.2	551.3	548.0	538.1	529.2	566.3	573.8
5°	731.6	708.1	695.4	685.1	682.8	657.4	692.2	688.4	700.1	719.9	739.1
7.5°	857.4	835.4	802.0	795.0	757.0	728.8	758.8	795.9	807.7	843.8	865.4
10°	903.5	884.2	890.3	858.9	857.0	865.0	858.4	866.8	897.8	893.6	909.6
12.5°	1006.8	1010.1	990.3	982.3	998.3	1033.1	1003.5	993.1	985.6	1017.6	1027.4
15°	1103.5	1122.8	1090.4	1085.2	1078.6	1111.0	1079.1	1094.6	1108.2	1114.8	1111.0
17.5°	1240.6	1241.6	1205.4	1147.6	1169.2	1179.6	1165.5	1138.7	1203.0	1235.4	1237.3
20°	1330.8	1334.1	1262.7	1172.5	1233.6	1243.0	1235.9	1180.0	1265.5	1319.5	1317.2
22.5°	1428.0	1416.7	1320.0	1254.2	1275.8	1281.5	1266.4	1259.4	1319.5	1417.6	1403.1
25°	1493.2	1513.9	1417.6	1375.4	1357.1	1343.9	1363.2	1366.9	1428.4	1517.7	1468.4
27.5°	1649.1	1613.5	1462.7	1478.7	1439.7	1351.0	1435.5	1482.0	1468.8	1621.0	1658.1
30°	1787.7	1788.6	1577.3	1607.8	1535.5	1463.7	1555.2	1622.4	1605.9	1800.8	1765.6
32.5°	1964.7	1971.3	1775.0	1693.3	1644.4	1630.8	1619.6	1693.8	1796.1	1953.9	1957.2
35°	2155.8	2212.2	1945.4	1859.5	1776.4	1716.3	1781.1	1883.9	1950.6	2202.8	2158.2
37.5°	2528.2	2433.3	2215.0	2053.4	2000.4	1976.4	2010.7	2070.4	2214.5	2431.9	2508.5
40°	2748.4	2722.1	2424.9	2289.6	2084.9	2148.8	2130.0	2293.4	2412.7	2737.1	2744.2
42.5°	3085.1	2952.7	2685.5	2513.6	2329.6	2218.7	2336.1	2555.4	2699.6	2973.8	3103.4
45°	3351.3	3181.4	2975.2	2844.7	2612.2	2530.1	2572.3	2853.1	3033.9	3222.2	3392.7
47.5°	3645.8	3461.7	3255.6	3023.6	2796.8	2930.6	2855.9	3102.9	3279.5	3549.5	3709.2
50°	4015.8	3812.0	3548.1	3356.5	3206.2	3253.2	3241.5	3417.6	3635.4	3881.5	4062.8
52.5°	4423.4	4192.8	3938.3	3760.3	3697.0	3580.5	3732.6	3805.0	3965.6	4190.9	4403.7
55°	4708.4	4477.9	4323.8	4381.1	4364.2	4177.3	4310.7	4318.2	4240.7	4322.0	4536.1
57.5°	4664.3	4444.0	4422.9	4639.4	4962.9	5143.7	4937.6	4494.3	4204.1	4166.1	4392.9
60°	4078.2	3889.9	4083.4	4571.8	5514.2	6064.5	5271.0	4361.4	3883.4	3685.7	3904.5
62.5°	2810.4	2683.1	3084.2	3847.7	5580.4	6775.0	5258.8	3789.9	3011.8	2653.1	2823.1
65°	1332.2	1286.2	1624.7	2439.4	4648.3	6585.3	4594.3	2564.3	1733.7	1384.8	1423.3
67.5°	501.0	478.0	596.4	1077.7	2927.8	5223.1	3088.4	1265.0	670.6	521.2	539.1
70°	284.6	268.1	283.6	393.0	1178.6	2958.3	1332.2	433.9	285.0	259.7	276.6
72.5°	224.0	211.3	213.7	237.6	406.7	1161.3	431.1	247.5	207.1	196.8	211.8
75°	185.0	173.7	173.3	186.4	237.1	377.1	243.7	189.2	167.6	160.1	172.3
77.5°	147.0	140.4	142.3	152.6	170.0	210.8	176.6	153.1	137.6	128.7	137.1
80°	107.5	106.6	114.1	123.5	126.8	141.8	132.4	123.5	109.9	97.2	100.5
82.5°	70.4	70.9	85.0	92.5	91.1	90.6	94.9	94.4	82.2	64.3	64.3
85°	40.4	41.3	52.1	58.2	57.3	45.5	60.1	60.6	52.6	39.0	37.6
87.5°	13.1	16.4	22.5	23.9	23.0	12.7	23.0	25.4	23.0	16.4	14.6
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)