

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: P368052

Luminaire Tested: **MSA-SA3D-727-U-5NQ**

Issue Date: 12/2/2019

**Test Information**

Test Method: LM-79-08  
Report Number: P368052  
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-SA3D-727-U-5NQ  
Description: MESA POST TOP DECORATIVE LUMINAIRE. (3) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE V NARROW OPTICS.  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 17034 lumens  
Efficiency: N/A  
Efficacy: 88.7 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type V - Short  
BUG Rating: B4 - U0 - G2

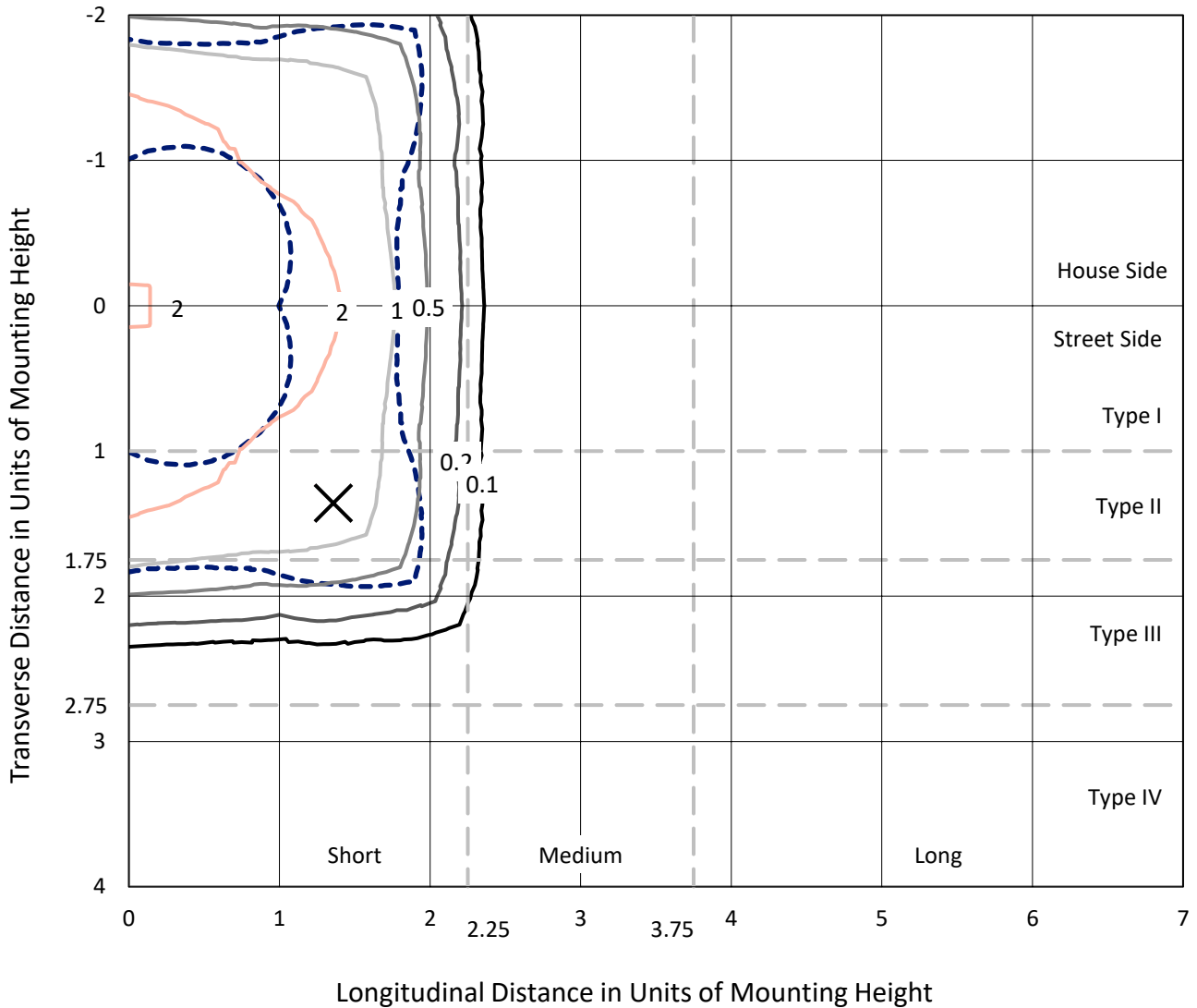
Input Watts (W): 192  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

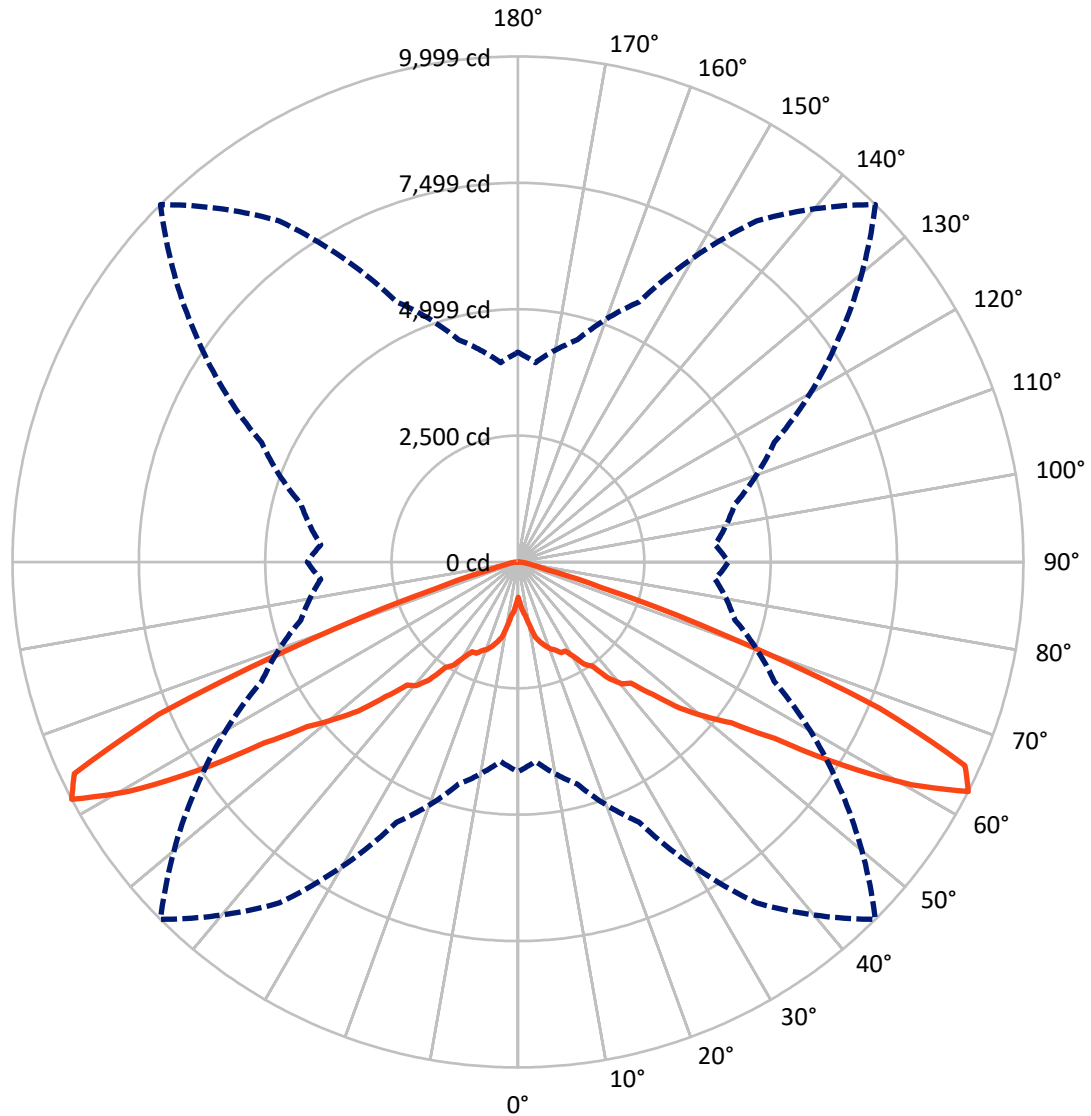
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.9 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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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	8517.0	0.0	8517.0
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	8517.0	0.0	8517.0
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	17034.0	0.0	17034.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	105.0	0.6
10°-20°	462.8	2.7
20°-30°	970.1	5.7
30°-40°	1827.7	10.7
40°-50°	3317.3	19.5
50°-60°	5605.1	32.9
60°-70°	4190.1	24.6
70°-80°	468.8	2.8
80°-90°	87.2	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°	17034.0	100.0
0°-180°	17034.0	100.0

**Coefficient of Utilization**



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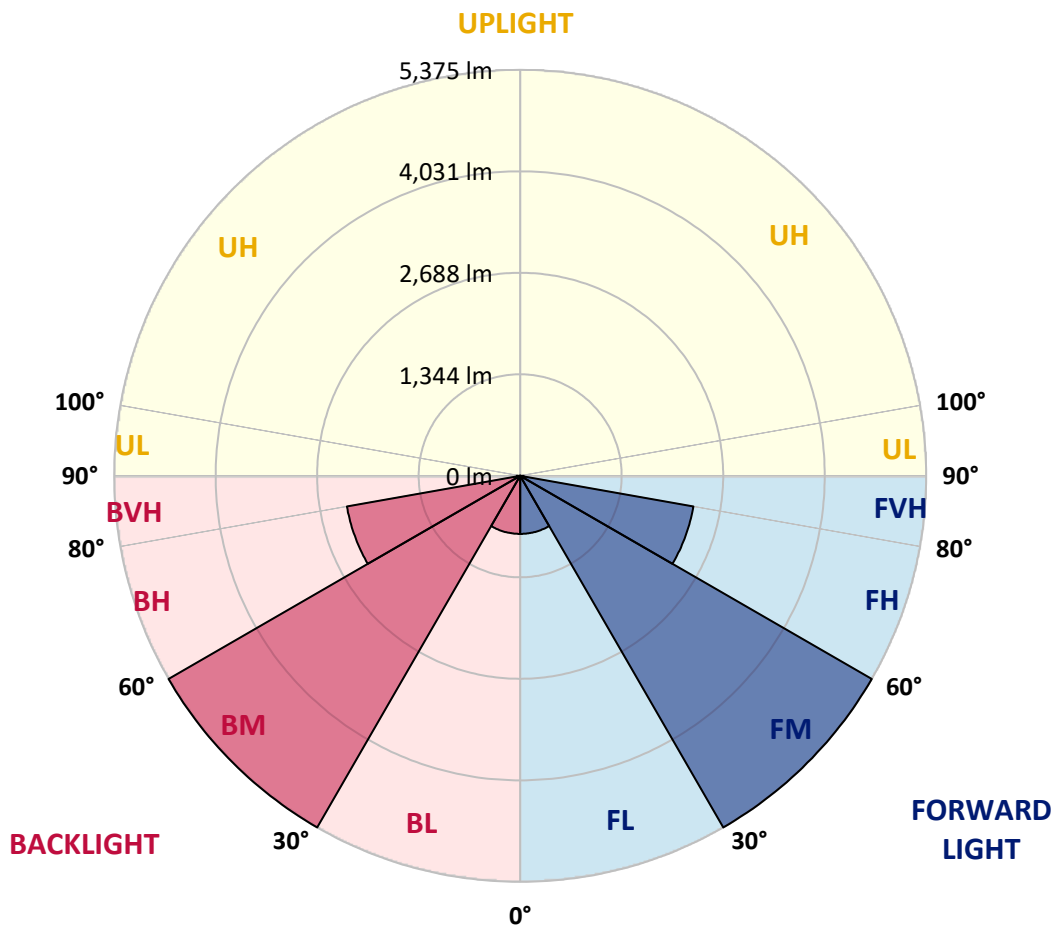
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	768.9	4.5			
FM (30°-60°)	5375.0	31.6			
FH (60°-80°)	2329.4	13.7			G2/5000
FVH (80°-90°)	43.6	0.3			G1/100
BL (0°-30°)	768.9	4.5	B2/1000		
BM (30°-60°)	5375.0	31.6	B4/8500		
BH (60°-80°)	2329.4	13.7	B3/2500		G2/5000
BVH (80°-90°)	43.6	0.3			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B4-U0-G2**

Type V Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	696.5	696.5	696.5	696.5	696.5	696.5	696.5	696.5	696.5	696.5	696.5
2.5°	846.9	831.6	778.2	797.0	816.4	813.6	808.7	794.2	781.0	835.8	846.9
5°	1079.7	1045.1	1026.3	1011.1	1007.6	970.2	1021.5	1016.0	1033.3	1062.4	1090.8
7.5°	1265.4	1232.9	1183.7	1173.3	1117.1	1075.6	1119.9	1174.7	1192.0	1245.3	1277.2
10°	1333.4	1304.9	1313.9	1267.5	1264.7	1276.5	1266.8	1279.3	1325.0	1318.8	1342.4
12.5°	1485.8	1490.7	1461.6	1449.8	1473.3	1524.6	1481.0	1465.7	1454.6	1501.8	1516.3
15°	1628.6	1657.0	1609.2	1601.5	1591.8	1639.7	1592.5	1615.4	1635.5	1645.2	1639.7
17.5°	1830.9	1832.3	1779.0	1693.7	1725.6	1740.8	1720.1	1680.5	1775.5	1823.3	1826.1
20°	1964.0	1968.8	1863.5	1730.4	1820.5	1834.4	1824.0	1741.5	1867.7	1947.4	1943.9
22.5°	2107.4	2090.8	1948.1	1851.0	1882.9	1891.2	1869.0	1858.7	1947.4	2092.2	2070.7
25°	2203.8	2234.3	2092.2	2029.8	2002.8	1983.4	2011.8	2017.4	2108.1	2239.8	2167.0
27.5°	2433.9	2381.2	2158.7	2182.3	2124.8	1993.8	2118.5	2187.1	2167.7	2392.3	2447.0
30°	2638.3	2639.7	2327.8	2372.9	2266.1	2160.1	2295.2	2394.3	2370.1	2657.7	2605.7
32.5°	2899.6	2909.3	2619.6	2499.0	2426.9	2406.8	2390.2	2499.7	2650.8	2883.6	2888.5
35°	3181.6	3264.8	2871.1	2744.3	2621.7	2533.0	2628.6	2780.4	2878.8	3250.9	3185.1
37.5°	3731.2	3591.2	3268.9	3030.5	2952.2	2916.9	2967.5	3055.5	3268.2	3589.1	3702.1
40°	4056.2	4017.4	3578.7	3379.1	3077.0	3171.2	3143.5	3384.7	3560.7	4039.6	4049.9
42.5°	4553.1	4357.6	3963.3	3709.7	3438.0	3274.5	3447.7	3771.4	3984.1	4388.8	4580.1
45°	4946.0	4695.1	4390.9	4198.3	3855.2	3733.9	3796.3	4210.7	4477.5	4755.4	5007.0
47.5°	5380.5	5108.9	4804.6	4462.3	4127.6	4325.1	4214.9	4579.4	4840.0	5238.5	5474.1
50°	5926.6	5625.9	5236.4	4953.6	4731.9	4801.2	4783.8	5043.7	5365.3	5728.4	5995.9
52.5°	6528.2	6187.9	5812.3	5549.6	5456.1	5284.2	5508.7	5615.5	5852.5	6185.1	6499.0
55°	6948.8	6608.5	6381.2	6465.8	6440.8	6165.0	6361.8	6372.9	6258.6	6378.5	6694.5
57.5°	6883.7	6558.6	6527.5	6846.9	7324.4	7591.2	7287.0	6632.8	6204.5	6148.4	6483.1
60°	6018.8	5740.9	6026.4	6747.1	8138.0	8950.2	7779.0	6436.7	5731.2	5439.4	5762.4
62.5°	4147.7	3959.9	4551.7	5678.5	8235.7	9998.7	7761.0	5593.3	4445.0	3915.5	4166.4
65°	1966.1	1898.2	2397.8	3600.2	6860.1	9718.8	6780.4	3784.5	2558.6	2043.7	2100.5
67.5°	739.4	705.5	880.1	1590.5	4320.9	7708.3	4557.9	1867.0	989.6	769.2	795.6
70°	420.0	395.7	418.6	580.0	1739.5	4366.0	1966.1	640.3	420.7	383.2	408.2
72.5°	330.6	311.9	315.3	350.7	600.1	1713.8	636.2	365.2	305.6	290.4	312.5
75°	273.0	256.4	255.7	275.1	350.0	556.5	359.7	279.3	247.4	236.3	254.3
77.5°	216.9	207.2	210.0	225.2	250.9	311.2	260.6	225.9	203.1	189.9	202.4
80°	158.7	157.3	168.4	182.3	187.1	209.3	195.4	182.3	162.2	143.5	148.3
82.5°	104.0	104.6	125.4	136.5	134.4	133.8	140.0	139.3	121.3	94.9	94.9
85°	59.6	61.0	76.9	85.9	84.5	67.2	88.7	89.4	77.6	57.5	55.4
87.5°	19.4	24.3	33.3	35.3	34.0	18.7	34.0	37.4	34.0	24.3	21.5
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)