

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: P368140

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

Issue Date: 12/2/2019

**Test Information**

Test Method: LM-79-08  
Report Number: P368140  
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-760-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: 20368 lumens  
Efficiency: N/A  
Efficacy: 106.1 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type V - Short  
BUG Rating: B4 - U0 - G2

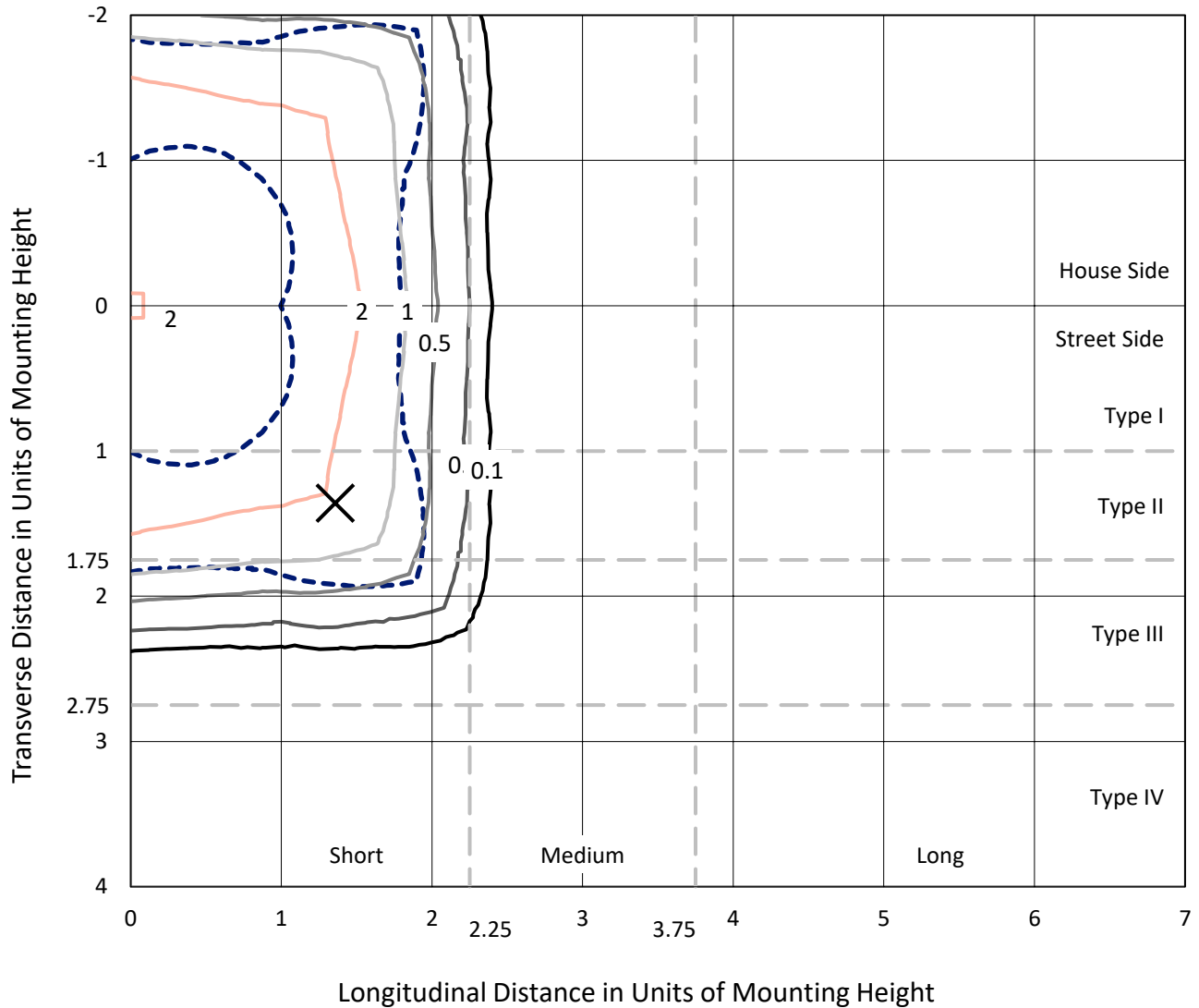
Input Watts (W): 192  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

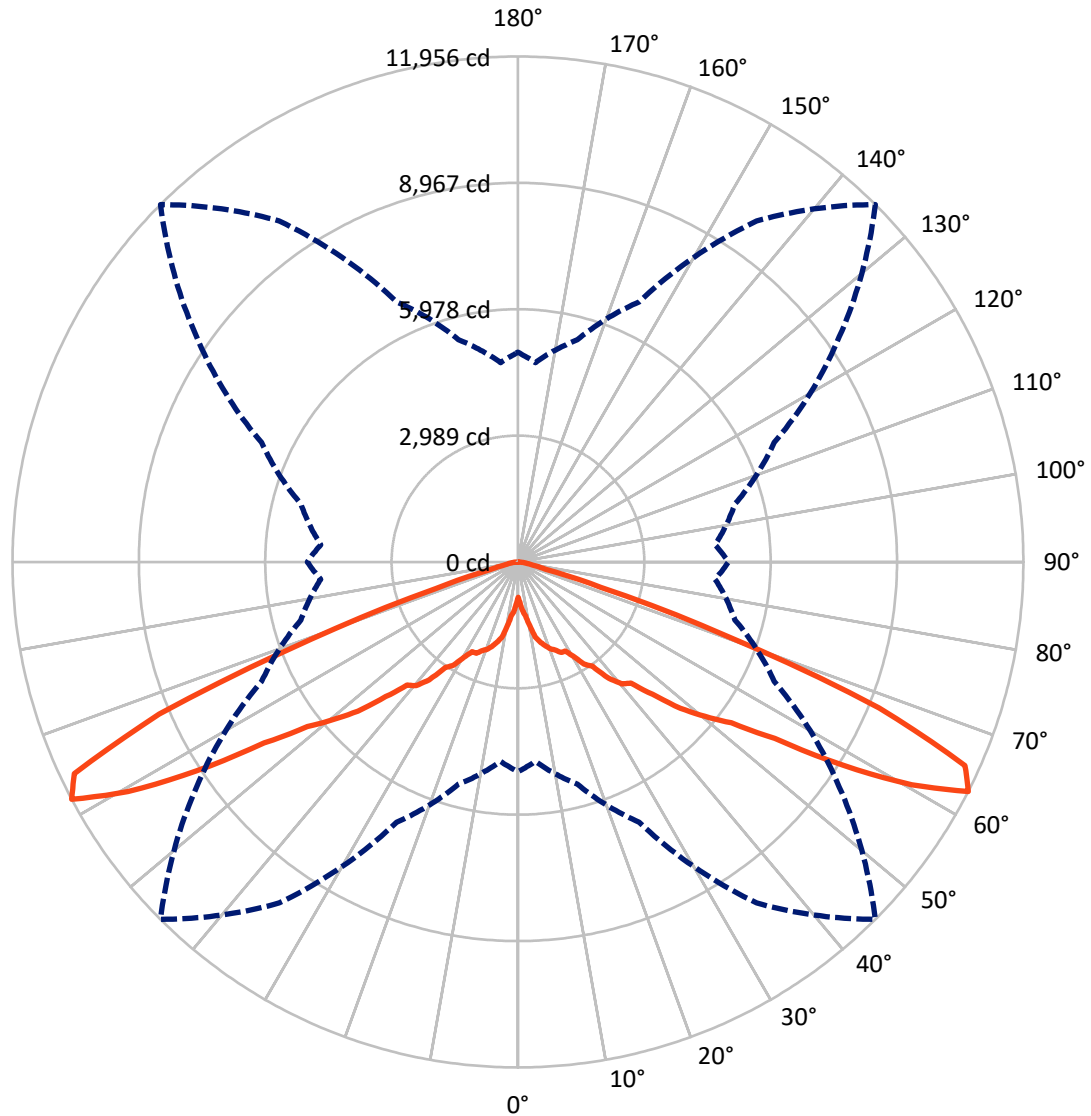
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.5 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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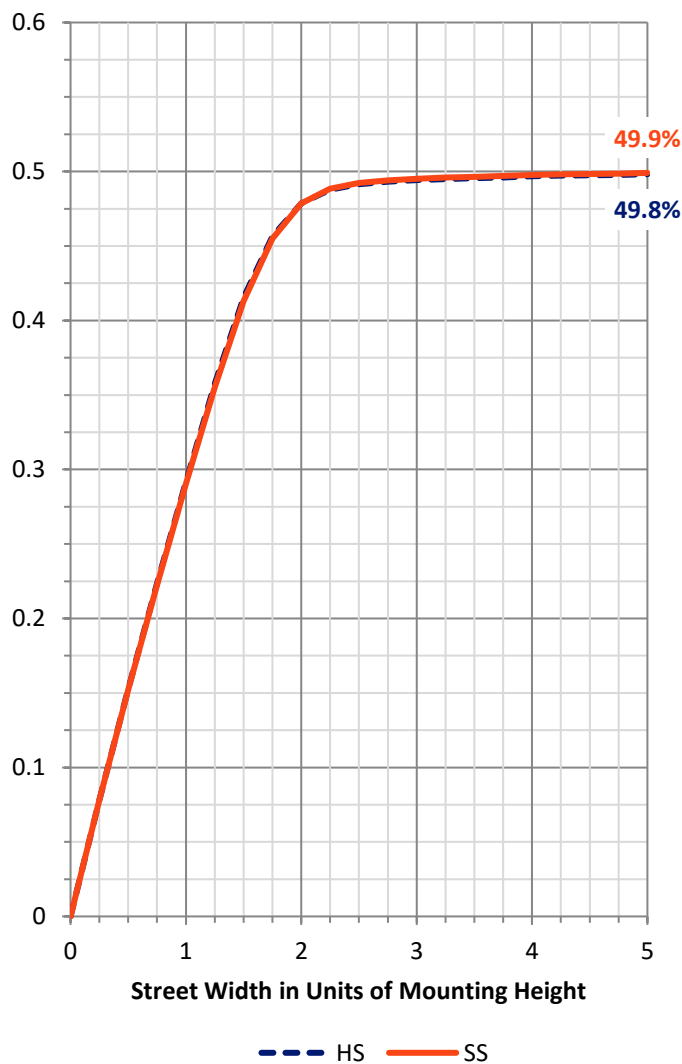
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	10184.0	0.0	10184.0
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	10184.0	0.0	10184.0
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	20368.0	0.0	20368.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	125.5	0.6
10°-20°	553.4	2.7
20°-30°	1159.9	5.7
30°-40°	2185.5	10.7
40°-50°	3966.5	19.5
50°-60°	6702.1	32.9
60°-70°	5010.2	24.6
70°-80°	560.5	2.8
80°-90°	104.3	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°	20368.0	100.0
0°-180°	20368.0	100.0

**Coefficient of Utilization**

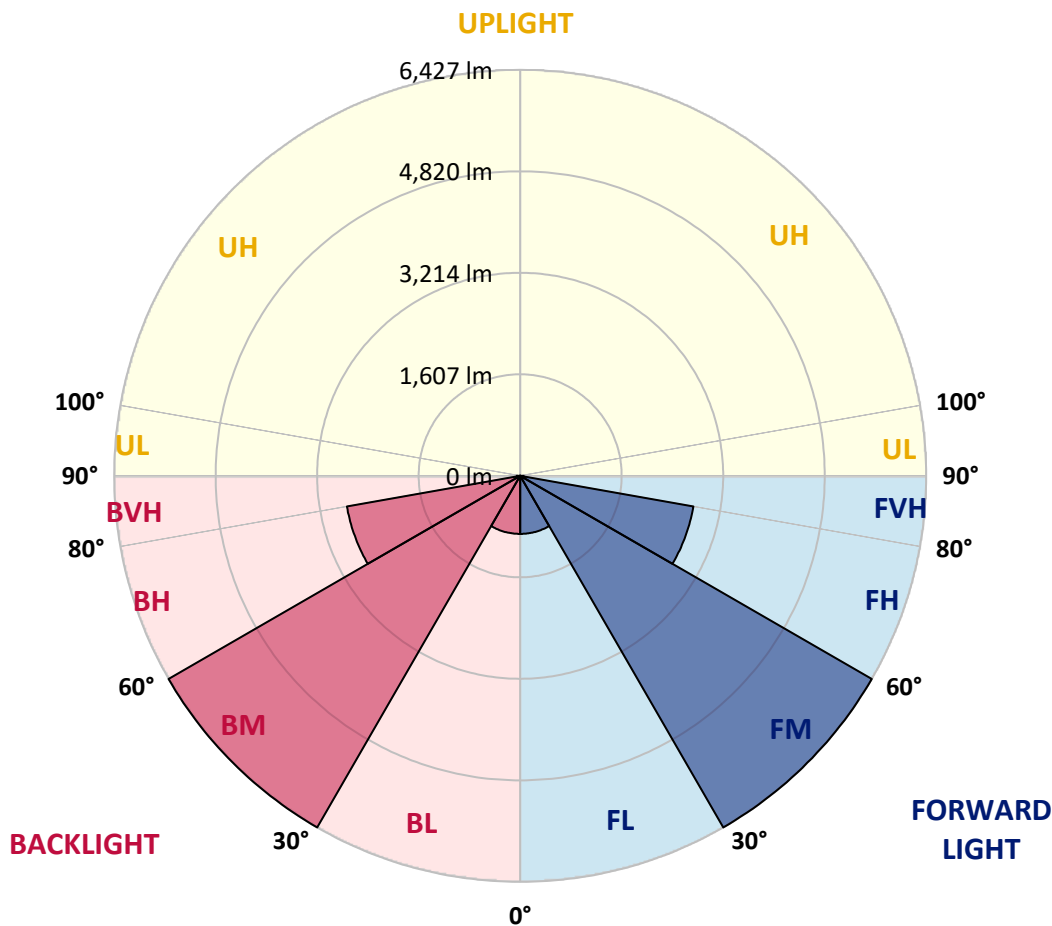


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	919.4	4.5			
FM (30°-60°)	6427.0	31.6			
FH (60°-80°)	2785.4	13.7			G2/5000
FVH (80°-90°)	52.2	0.3			G1/100
BL (0°-30°)	919.4	4.5	B2/1000		
BM (30°-60°)	6427.0	31.6	B4/8500		
BH (60°-80°)	2785.4	13.7	B4/5000		G2/5000
BVH (80°-90°)	52.2	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°	832.8	832.8	832.8	832.8	832.8	832.8	832.8	832.8	832.8	832.8	832.8
2.5°	1012.6	994.4	930.6	952.9	976.1	972.8	967.0	949.6	933.9	999.4	1012.6
5°	1291.0	1249.6	1227.2	1209.0	1204.9	1160.1	1221.4	1214.8	1235.5	1270.3	1304.3
7.5°	1513.1	1474.2	1415.3	1402.9	1335.8	1286.1	1339.1	1404.6	1425.3	1489.1	1527.2
10°	1594.3	1560.3	1571.1	1515.6	1512.3	1526.4	1514.8	1529.7	1584.4	1576.9	1605.1
12.5°	1776.6	1782.4	1747.6	1733.5	1761.7	1823.0	1770.8	1752.6	1739.3	1795.7	1813.1
15°	1947.3	1981.3	1924.1	1915.0	1903.4	1960.6	1904.2	1931.6	1955.6	1967.2	1960.6
17.5°	2189.3	2191.0	2127.1	2025.2	2063.3	2081.6	2056.7	2009.5	2123.0	2180.2	2183.5
20°	2348.4	2354.2	2228.2	2069.1	2176.9	2193.4	2181.0	2082.4	2233.2	2328.5	2324.4
22.5°	2519.9	2500.0	2329.3	2213.3	2251.4	2261.4	2234.9	2222.4	2328.5	2501.7	2476.0
25°	2635.1	2671.6	2501.7	2427.1	2394.8	2371.6	2405.6	2412.2	2520.8	2678.2	2591.2
27.5°	2910.2	2847.2	2581.2	2609.4	2540.6	2384.0	2533.2	2615.2	2592.0	2860.5	2926.0
30°	3154.7	3156.3	2783.4	2837.3	2709.7	2582.9	2744.5	2863.0	2834.0	3177.9	3115.7
32.5°	3467.1	3478.7	3132.3	2988.1	2901.9	2877.9	2858.0	2988.9	3169.6	3448.0	3453.8
35°	3804.3	3903.8	3433.1	3281.5	3134.8	3028.7	3143.1	3324.5	3442.2	3887.2	3808.5
37.5°	4461.5	4294.1	3908.7	3623.7	3530.0	3487.8	3548.3	3653.5	3907.9	4291.6	4426.6
40°	4850.1	4803.7	4279.1	4040.5	3679.2	3791.9	3758.8	4047.1	4257.6	4830.2	4842.6
42.5°	5444.2	5210.6	4739.0	4435.8	4110.9	3915.4	4122.5	4509.5	4763.9	5247.8	5476.5
45°	5914.1	5614.1	5250.3	5020.0	4609.8	4464.8	4539.3	5034.9	5353.9	5686.2	5987.0
47.5°	6433.6	6108.8	5745.0	5335.7	4935.4	5171.6	5039.8	5475.7	5787.3	6263.8	6545.5
50°	7086.6	6727.0	6261.3	5923.2	5658.0	5740.9	5720.2	6030.9	6415.4	6849.6	7169.5
52.5°	7805.9	7399.0	6949.9	6635.8	6524.0	6318.5	6586.9	6714.6	6997.9	7395.7	7771.1
55°	8308.9	7902.0	7630.2	7731.3	7701.5	7371.7	7607.0	7620.3	7483.5	7626.9	8004.8
57.5°	8231.0	7842.3	7805.1	8187.1	8758.0	9077.0	8713.3	7931.0	7418.9	7351.8	7752.0
60°	7196.8	6864.5	7205.9	8067.7	9730.8	10702.0	9301.6	7696.5	6852.9	6504.1	6890.2
62.5°	4959.5	4734.9	5442.6	6790.0	9847.7	11955.8	9280.1	6688.0	5315.0	4681.9	4981.8
65°	2350.9	2269.7	2867.1	4304.8	8202.8	11621.0	8107.5	4525.3	3059.4	2443.7	2511.6
67.5°	884.2	843.6	1052.4	1901.8	5166.6	9217.1	5450.0	2232.4	1183.3	919.8	951.3
70°	502.2	473.2	500.5	693.6	2079.9	5220.5	2350.9	765.7	503.0	458.2	488.1
72.5°	395.3	372.9	377.0	419.3	717.6	2049.3	760.7	436.7	365.4	347.2	373.7
75°	326.5	306.6	305.8	329.0	418.5	665.4	430.1	333.9	295.8	282.6	304.1
77.5°	259.4	247.8	251.1	269.3	300.0	372.1	311.6	270.1	242.8	227.1	242.0
80°	189.8	188.1	201.4	217.9	223.7	250.3	233.7	217.9	193.9	171.5	177.3
82.5°	124.3	125.1	150.0	163.2	160.8	159.9	167.4	166.6	145.0	113.5	113.5
85°	71.3	72.9	92.0	102.8	101.1	80.4	106.1	106.9	92.8	68.8	66.3
87.5°	23.2	29.0	39.8	42.3	40.6	22.4	40.6	44.7	40.6	29.0	25.7
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)