

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: P368404

Luminaire Tested: **MSA-SA4B-760-U-5NQ**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P368404
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-SA4B-760-U-5NQ
Description: MESA POST TOP DECORATIVE LUMINAIRE. (4) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE V NARROW OPTICS.
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 19881 lumens
Efficiency: N/A
Efficacy: 116.3 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type V - Short
BUG Rating: B4 - U0 - G2

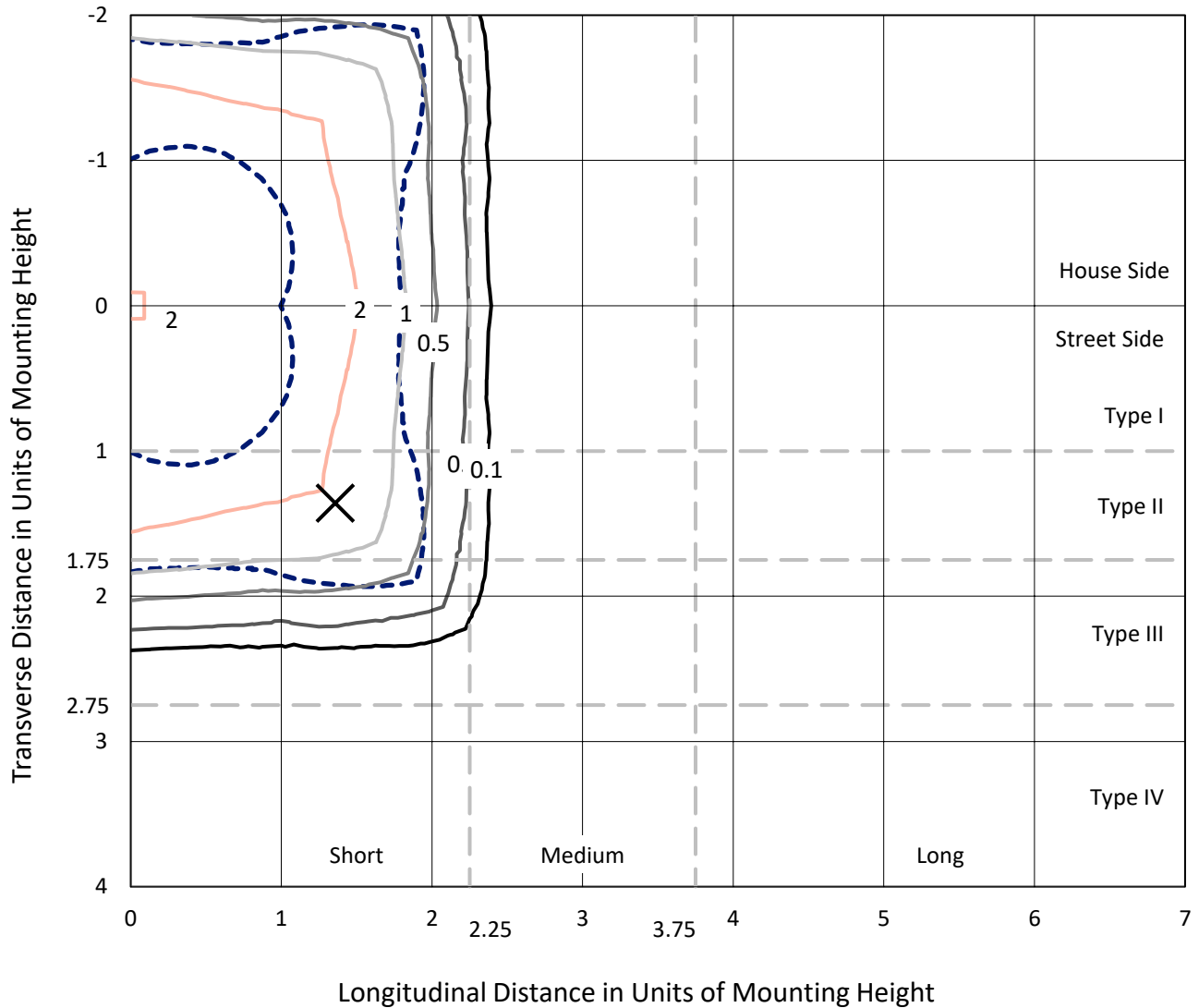
Input Watts (W): 171
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P368404
 CATALOG NUMBER: MSA-SA4B-760-U-5NQ

Iso-Footcandle Lines of Horizontal Illumination

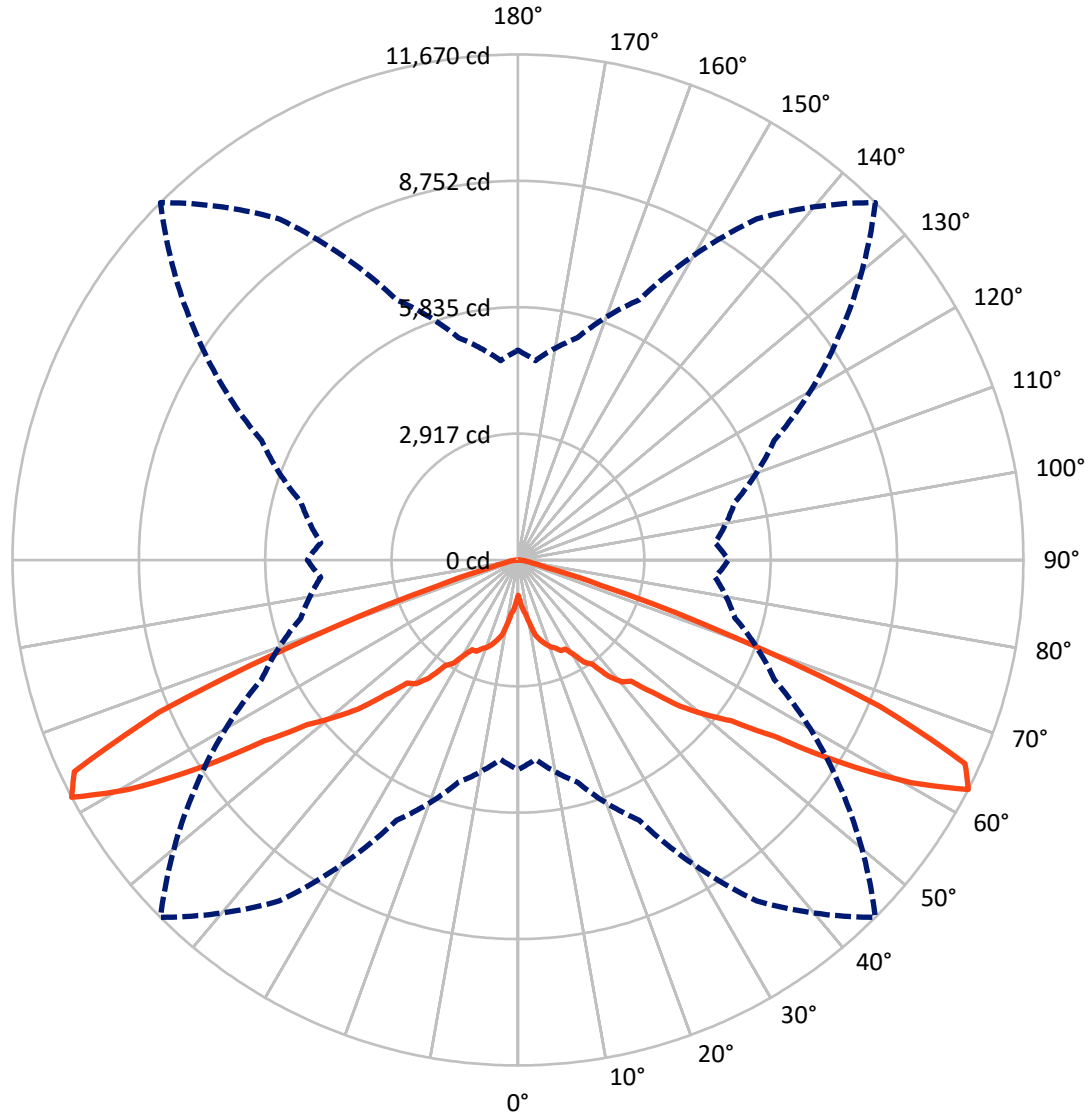
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.4 fc
 Type V - Short - N/A

REPORT NUMBER: P368404
CATALOG NUMBER: MSA-SA4B-760-U-5NQ

Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 62.5-Deg Vertical

REPORT NUMBER: P368404

CATALOG NUMBER: MSA-SA4B-760-U-5NQ

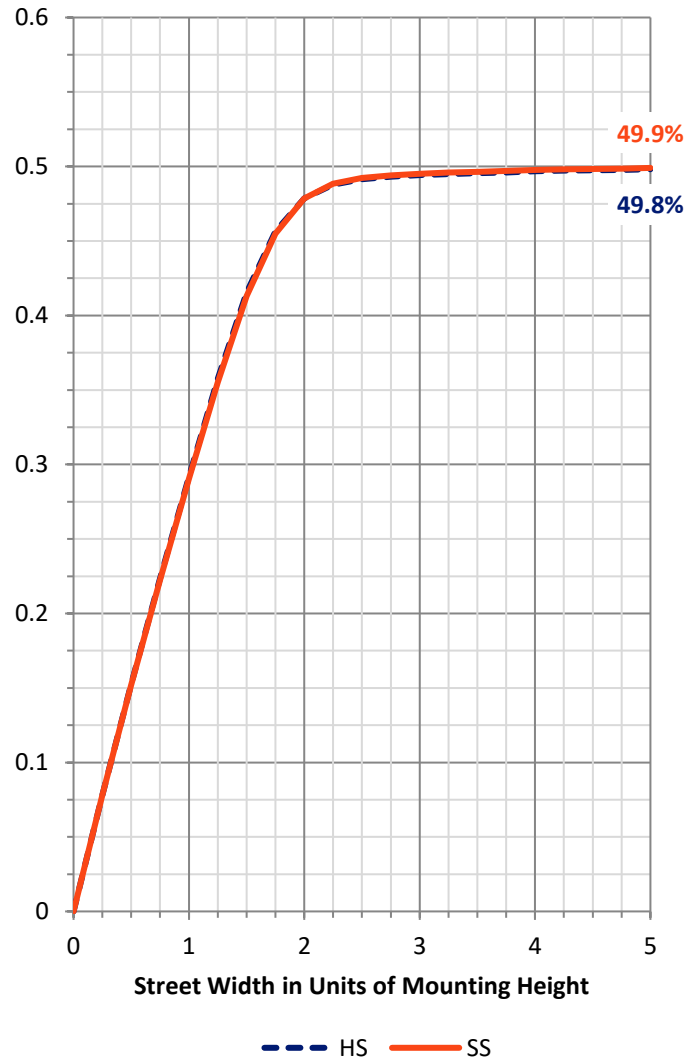
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	9940.5	0.0	9940.5
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	9940.5	0.0	9940.5
	% Fixture	50.0	0.0	50.0
Total	Lumens	19881.0	0.0	19881.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	122.5	0.6
10°-20°	540.2	2.7
20°-30°	1132.2	5.7
30°-40°	2133.2	10.7
40°-50°	3871.7	19.5
50°-60°	6541.9	32.9
60°-70°	4890.4	24.6
70°-80°	547.1	2.8
80°-90°	101.8	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°	19881.0	100.0
0°-180°	19881.0	100.0

Coefficient of Utilization



REPORT NUMBER: P368404

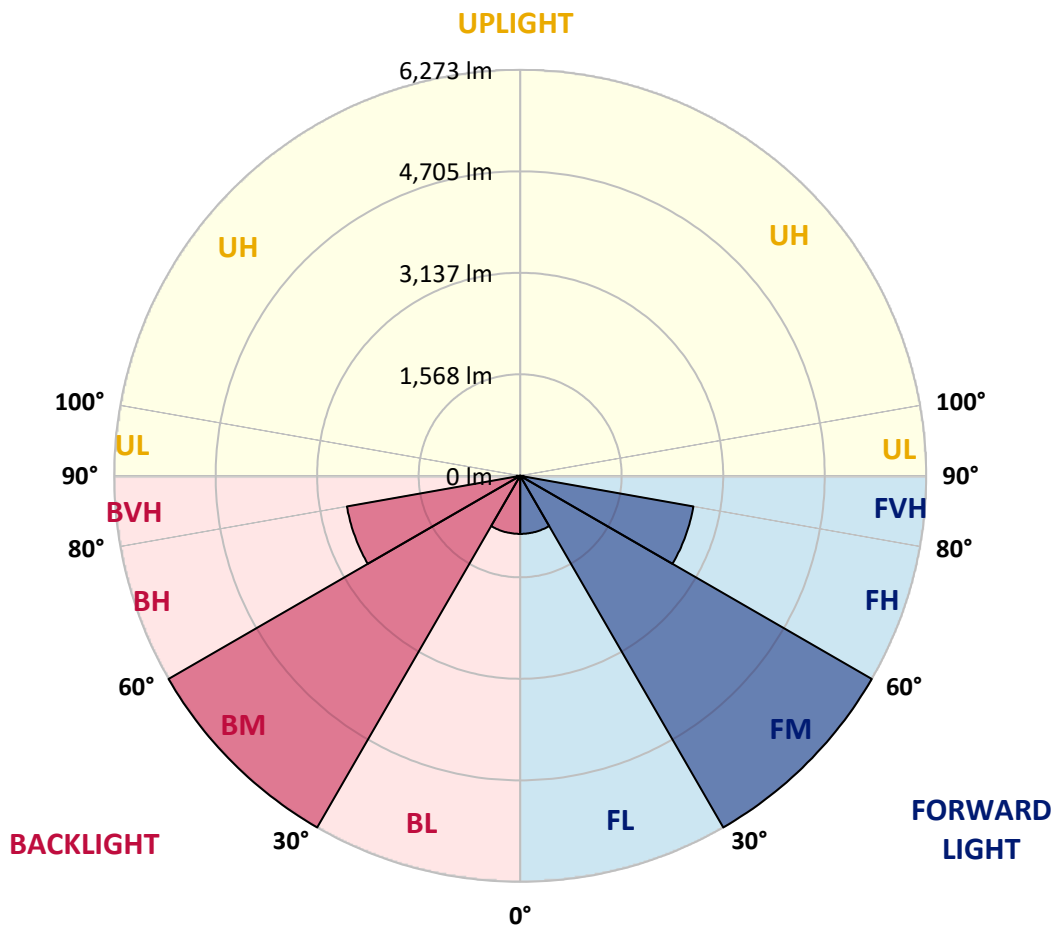
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	897.4	4.5			
FM (30°-60°)	6273.4	31.6			
FH (60°-80°)	2718.8	13.7			G2/5000
FVH (80°-90°)	50.9	0.3			G1/100
BL (0°-30°)	897.4	4.5	B2/1000		
BM (30°-60°)	6273.4	31.6	B4/8500		
BH (60°-80°)	2718.8	13.7	B4/5000		G2/5000
BVH (80°-90°)	50.9	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°	812.9	812.9	812.9	812.9	812.9	812.9	812.9	812.9	812.9	812.9	812.9
2.5°	988.4	970.6	908.3	930.2	952.8	949.6	943.9	926.9	911.6	975.5	988.4
5°	1260.2	1219.7	1197.9	1180.1	1176.0	1132.4	1192.2	1185.8	1206.0	1239.9	1273.1
7.5°	1476.9	1438.9	1381.5	1369.4	1303.8	1255.3	1307.1	1371.0	1391.2	1453.5	1490.7
10°	1556.2	1523.0	1533.6	1479.4	1476.1	1489.9	1478.6	1493.1	1546.5	1539.2	1566.7
12.5°	1734.1	1739.8	1705.8	1692.1	1719.6	1779.4	1728.5	1710.7	1697.7	1752.7	1769.7
15°	1900.8	1933.9	1878.1	1869.2	1857.9	1913.7	1858.7	1885.4	1908.9	1920.2	1913.7
17.5°	2136.9	2138.6	2076.3	1976.8	2014.0	2031.8	2007.5	1961.4	2072.2	2128.0	2131.3
20°	2292.2	2297.9	2175.0	2019.7	2124.8	2141.0	2128.9	2032.6	2179.8	2272.8	2268.8
22.5°	2459.7	2440.3	2273.6	2160.4	2197.6	2207.3	2181.4	2169.3	2272.8	2441.9	2416.8
25°	2572.1	2607.7	2441.9	2369.1	2337.5	2314.9	2348.1	2354.5	2460.5	2614.2	2529.2
27.5°	2840.6	2779.2	2519.5	2547.0	2479.9	2327.0	2472.6	2552.7	2530.0	2792.1	2856.0
30°	3079.2	3080.9	2716.9	2769.5	2644.9	2521.1	2678.9	2794.5	2766.2	3101.9	3041.2
32.5°	3384.2	3395.5	3057.4	2916.7	2832.5	2809.1	2789.7	2917.5	3093.8	3365.6	3371.2
35°	3713.4	3810.4	3351.0	3203.0	3059.8	2956.3	3067.9	3245.1	3359.9	3794.3	3717.4
37.5°	4354.8	4191.4	3815.3	3537.0	3445.6	3404.4	3463.4	3566.2	3814.5	4189.0	4320.8
40°	4734.1	4688.8	4176.8	3943.9	3591.2	3701.2	3668.9	3950.4	4155.8	4714.7	4726.8
42.5°	5314.1	5086.0	4625.7	4329.7	4012.6	3821.8	4024.0	4401.7	4650.0	5122.4	5345.6
45°	5772.7	5479.9	5124.8	4899.9	4499.6	4358.0	4430.8	4914.5	5225.9	5550.2	5843.8
47.5°	6279.8	5962.7	5607.7	5208.1	4817.4	5048.0	4919.3	5344.8	5648.9	6114.0	6389.0
50°	6917.2	6566.1	6111.6	5781.6	5522.7	5603.6	5583.4	5886.7	6262.0	6685.8	6998.1
52.5°	7619.2	7222.1	6783.7	6477.2	6368.0	6167.4	6429.4	6554.0	6830.6	7218.9	7585.3
55°	8110.2	7713.1	7447.8	7546.4	7517.3	7195.4	7425.1	7438.1	7304.6	7444.5	7813.4
57.5°	8034.2	7654.8	7618.4	7991.3	8548.6	8860.0	8504.9	7741.4	7241.5	7176.0	7566.7
60°	7024.7	6700.4	7033.6	7874.8	9498.2	10446.1	9079.2	7512.5	6689.1	6348.6	6725.5
62.5°	4840.9	4621.7	5312.4	6627.6	9612.2	11669.9	9058.2	6528.1	5187.9	4569.9	4862.7
65°	2294.7	2215.4	2798.6	4201.9	8006.7	11343.1	7913.7	4417.1	2986.2	2385.3	2451.6
67.5°	863.0	823.4	1027.2	1856.3	5043.1	8996.7	5319.7	2179.0	1155.0	897.8	928.5
70°	490.2	461.8	488.5	677.0	2030.2	5095.7	2294.7	747.4	491.0	447.3	476.4
72.5°	385.8	364.0	368.0	409.3	700.5	2000.3	742.5	426.3	356.7	338.9	364.8
75°	318.7	299.3	298.5	321.1	408.5	649.5	419.8	326.0	288.8	275.8	296.8
77.5°	253.2	241.8	245.1	262.9	292.8	363.2	304.1	263.7	237.0	221.6	236.2
80°	185.2	183.6	196.5	212.7	218.4	244.3	228.1	212.7	189.3	167.4	173.1
82.5°	121.3	122.1	146.4	159.3	156.9	156.1	163.4	162.6	141.5	110.8	110.8
85°	69.6	71.2	89.8	100.3	98.7	78.5	103.5	104.3	90.6	67.1	64.7
87.5°	22.6	28.3	38.8	41.3	39.6	21.8	39.6	43.7	39.6	28.3	25.1
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)