

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: P368162

Luminaire Tested: **MSA-SA3D-830-U-5NQ**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P368162
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-830-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: 16185 lumens
Efficiency: N/A
Efficacy: 84.3 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type V - Short
BUG Rating: B4 - U0 - G2

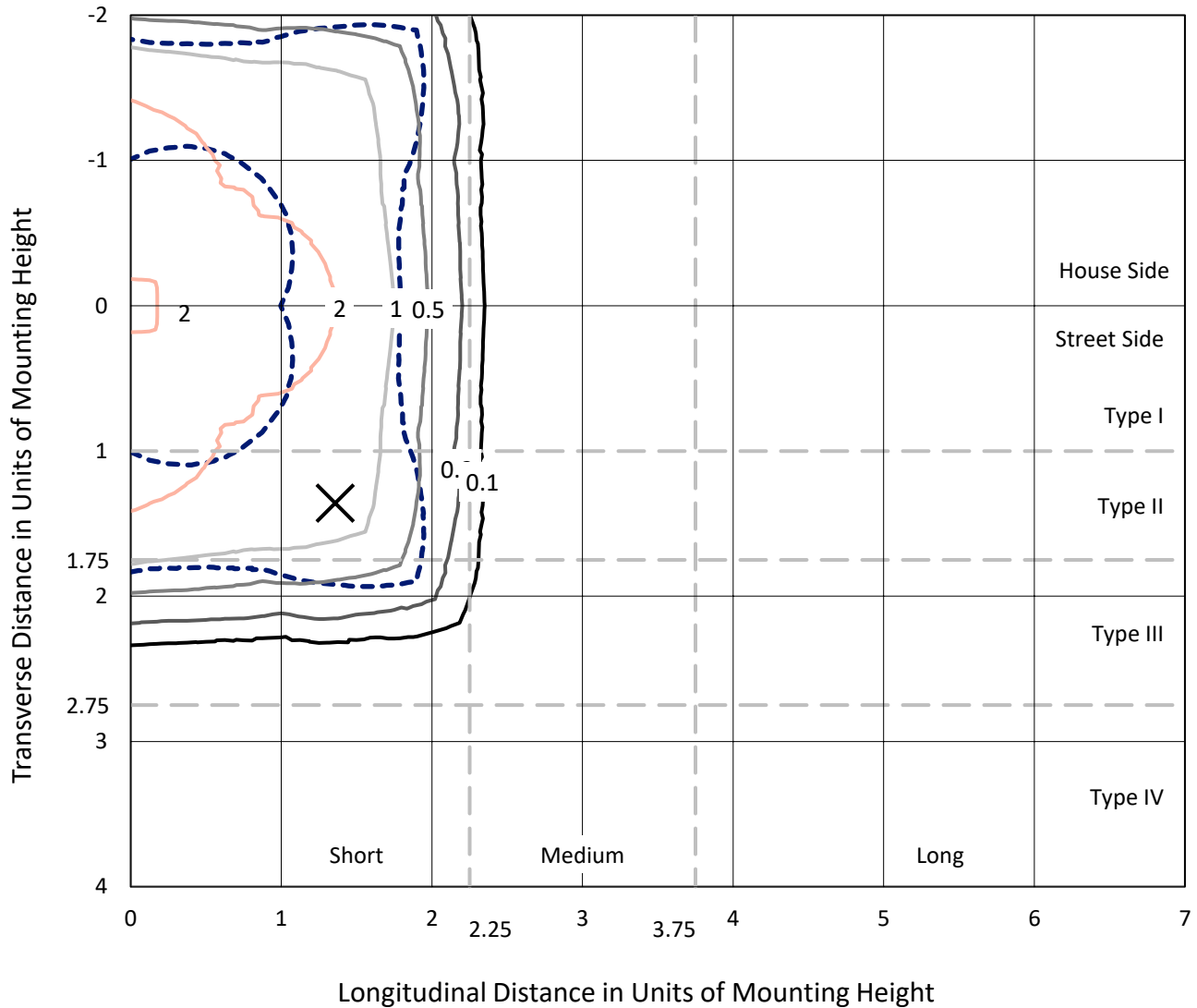
Input Watts (W): 192
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

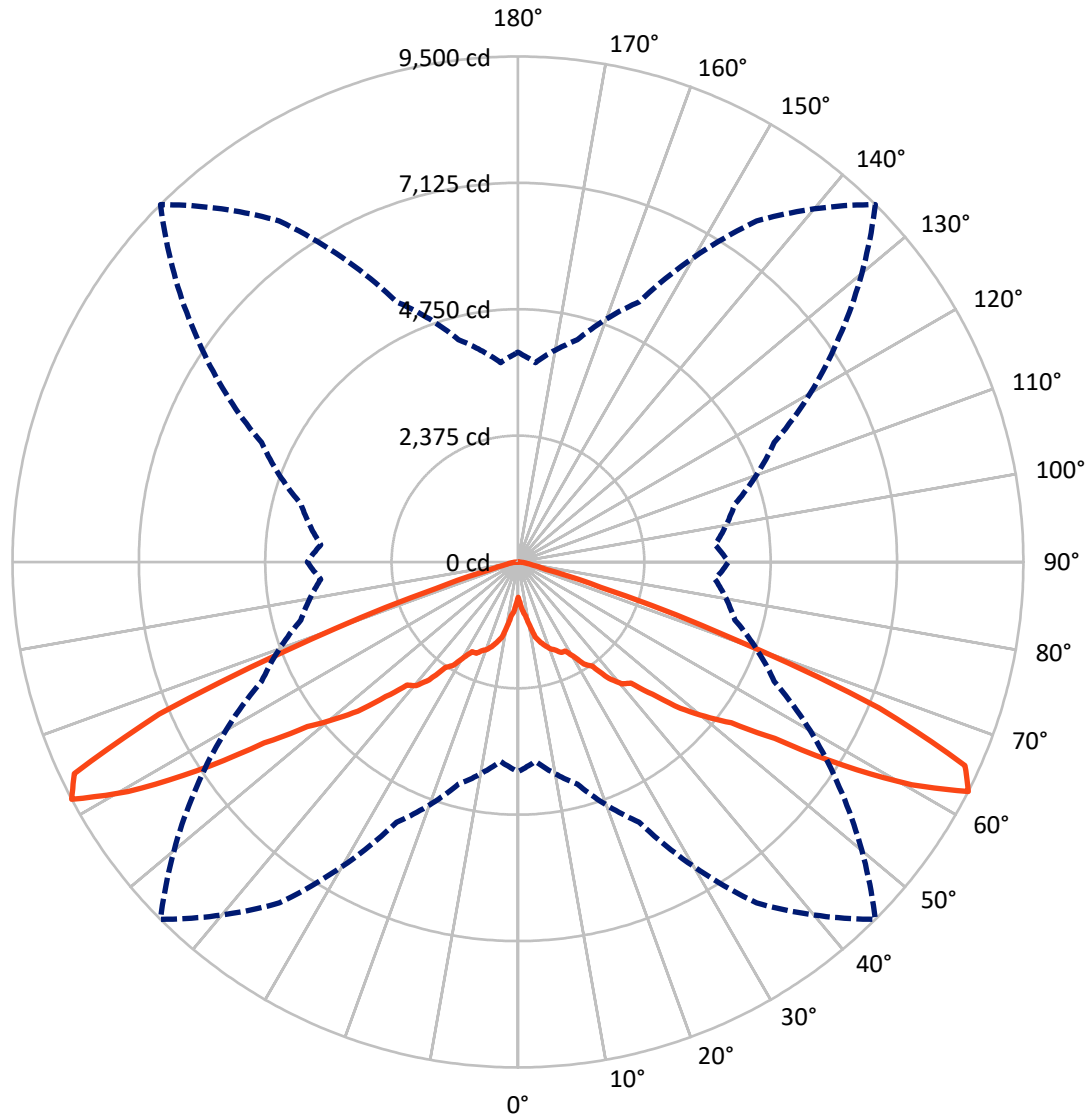
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.8 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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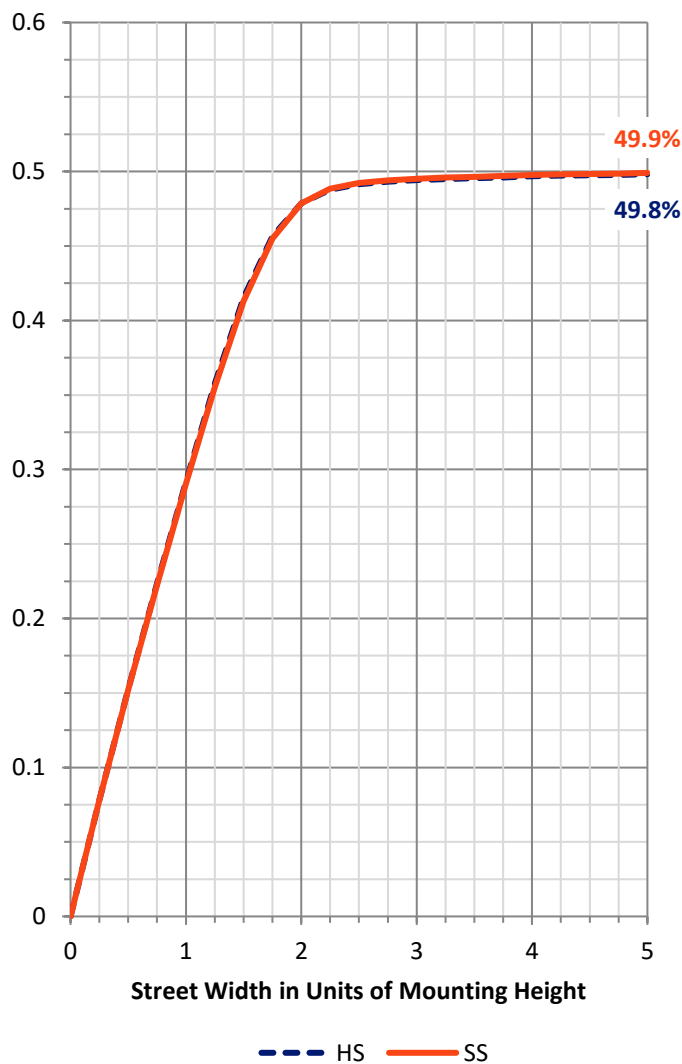
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	8092.5	0.0	8092.5
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	8092.5	0.0	8092.5
	% Fixture	50.0	0.0	50.0
Total	Lumens	16185.0	0.0	16185.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	99.7	0.6
10°-20°	439.8	2.7
20°-30°	921.7	5.7
30°-40°	1736.6	10.7
40°-50°	3151.9	19.5
50°-60°	5325.7	32.9
60°-70°	3981.3	24.6
70°-80°	445.4	2.8
80°-90°	82.9	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°	16185.0	100.0
0°-180°	16185.0	100.0

Coefficient of Utilization

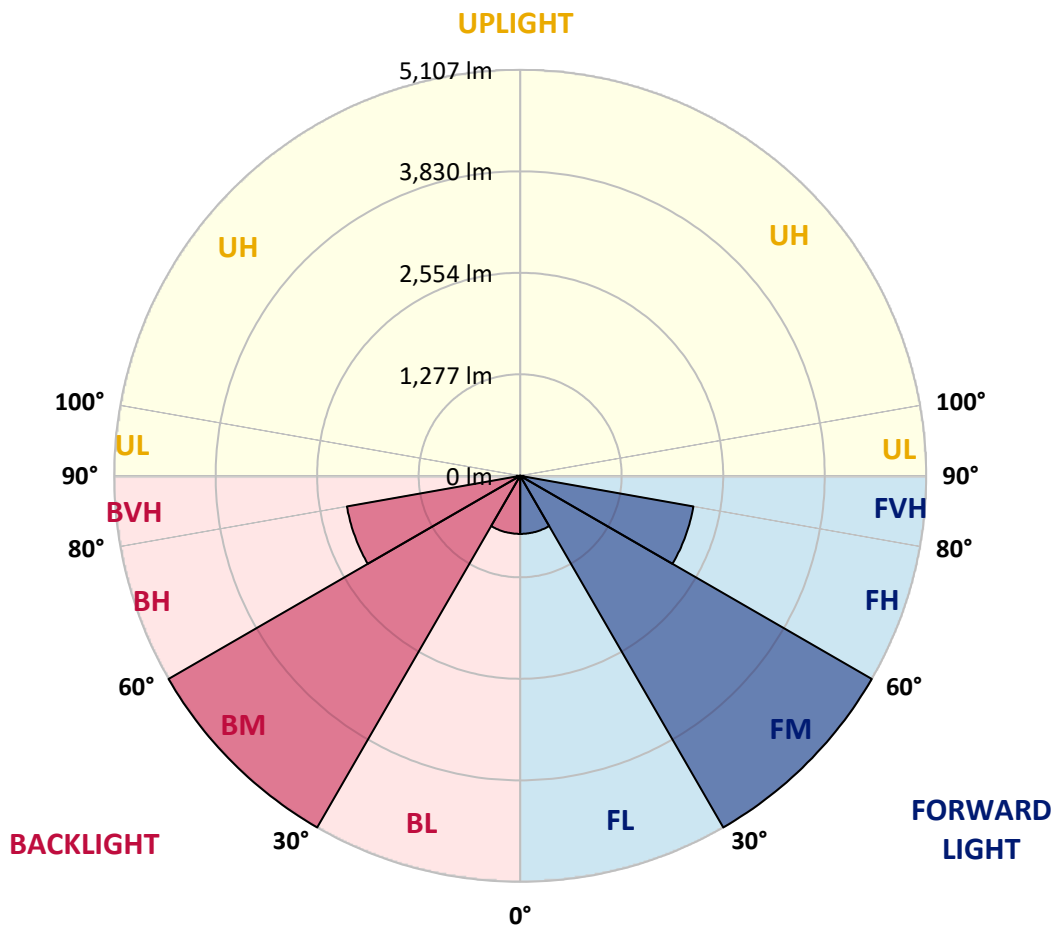


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	730.6	4.5			
FM (30°-60°)	5107.1	31.6			
FH (60°-80°)	2213.3	13.7			G2/5000
FVH (80°-90°)	41.4	0.3			G1/100
BL (0°-30°)	730.6	4.5	B2/1000		
BM (30°-60°)	5107.1	31.6	B4/8500		
BH (60°-80°)	2213.3	13.7	B3/2500		G2/5000
BVH (80°-90°)	41.4	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°	661.8	661.8	661.8	661.8	661.8	661.8	661.8	661.8	661.8	661.8	661.8
2.5°	804.6	790.2	739.5	757.2	775.7	773.0	768.4	754.6	742.1	794.1	804.6
5°	1025.9	993.0	975.2	960.7	957.4	921.9	970.6	965.3	981.8	1009.4	1036.4
7.5°	1202.4	1171.4	1124.7	1114.8	1061.5	1021.9	1064.1	1116.1	1132.6	1183.3	1213.6
10°	1266.9	1239.9	1248.5	1204.3	1201.7	1212.9	1203.7	1215.5	1259.0	1253.1	1275.5
12.5°	1411.8	1416.4	1388.7	1377.5	1399.9	1448.6	1407.1	1392.7	1382.1	1426.9	1440.7
15°	1547.4	1574.4	1529.0	1521.7	1512.5	1557.9	1513.2	1534.9	1554.0	1563.2	1557.9
17.5°	1739.7	1741.0	1690.3	1609.3	1639.6	1654.1	1634.3	1596.8	1687.0	1732.4	1735.1
20°	1866.1	1870.7	1770.6	1644.2	1729.8	1743.0	1733.1	1654.7	1774.6	1850.3	1847.0
22.5°	2002.4	1986.6	1851.0	1758.8	1789.1	1797.0	1775.9	1766.0	1850.3	1987.9	1967.5
25°	2093.9	2122.9	1987.9	1928.7	1903.0	1884.5	1911.5	1916.8	2003.1	2128.2	2059.0
27.5°	2312.5	2262.5	2051.1	2073.5	2018.9	1894.4	2012.9	2078.1	2059.7	2273.0	2325.1
30°	2506.8	2508.1	2211.8	2254.6	2153.2	2052.4	2180.8	2275.0	2252.0	2525.2	2475.8
32.5°	2755.0	2764.3	2489.0	2374.4	2306.0	2286.9	2271.1	2375.1	2518.6	2739.9	2744.5
35°	3023.0	3102.0	2728.0	2607.5	2491.0	2406.7	2497.6	2641.8	2735.3	3088.9	3026.3
37.5°	3545.2	3412.2	3106.0	2879.5	2805.1	2771.5	2819.6	2903.2	3105.3	3410.2	3517.5
40°	3854.0	3817.1	3400.3	3210.7	2923.6	3013.2	2986.8	3216.0	3383.2	3838.2	3848.1
42.5°	4326.1	4140.5	3765.8	3524.8	3266.7	3111.3	3275.9	3583.4	3785.5	4170.1	4351.8
45°	4699.5	4461.1	4172.1	3989.0	3663.1	3547.8	3607.1	4000.9	4254.4	4518.4	4757.4
47.5°	5112.4	4854.2	4565.2	4239.9	3921.8	4109.5	4004.8	4351.2	4598.7	4977.4	5201.2
50°	5631.2	5345.5	4975.4	4706.7	4496.0	4561.9	4545.4	4792.3	5097.9	5442.9	5697.1
52.5°	6202.8	5879.5	5522.6	5273.0	5184.1	5020.8	5234.2	5335.6	5560.8	5876.8	6175.1
55°	6602.5	6279.2	6063.2	6143.5	6119.8	5857.7	6044.7	6055.3	5946.6	6060.5	6360.8
57.5°	6540.6	6231.8	6202.1	6505.7	6959.4	7212.9	6923.8	6302.2	5895.3	5841.9	6160.0
60°	5718.8	5454.8	5726.0	6410.9	7732.4	8504.1	7391.3	6115.9	5445.5	5168.3	5475.2
62.5°	3940.9	3762.5	4324.8	5395.5	7825.2	9500.4	7374.2	5314.5	4223.4	3720.4	3958.7
65°	1868.1	1803.5	2278.3	3420.7	6518.2	9234.4	6442.5	3595.9	2431.1	1941.8	1995.8
67.5°	702.6	670.3	836.3	1511.2	4105.6	7324.2	4330.8	1773.9	940.3	730.9	755.9
70°	399.0	376.0	397.7	551.1	1652.8	4148.4	1868.1	608.4	399.7	364.1	387.8
72.5°	314.1	296.3	299.6	333.2	570.2	1628.4	604.5	347.0	290.4	275.9	297.0
75°	259.4	243.6	243.0	261.4	332.5	528.8	341.7	265.4	235.1	224.5	241.7
77.5°	206.1	196.9	199.5	214.0	238.4	295.7	247.6	214.7	192.9	180.4	192.3
80°	150.8	149.5	160.0	173.2	177.8	198.9	185.7	173.2	154.1	136.3	140.9
82.5°	98.8	99.4	119.2	129.7	127.7	127.1	133.0	132.4	115.2	90.2	90.2
85°	56.6	57.9	73.1	81.7	80.3	63.9	84.3	84.9	73.7	54.7	52.7
87.5°	18.4	23.0	31.6	33.6	32.3	17.8	32.3	35.6	32.3	23.0	20.4
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)