

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: P596806

Luminaire Tested: **MSA-SA4D-827-U-5NQ**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P596806
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-5)
Test Lab: INNOVATIONS CENTER
Issue Date: 5/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA4D-827-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: 19789 lumens
Efficiency: N/A
Efficacy: 76.4 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type V - Short
BUG Rating: B4 - U0 - G2

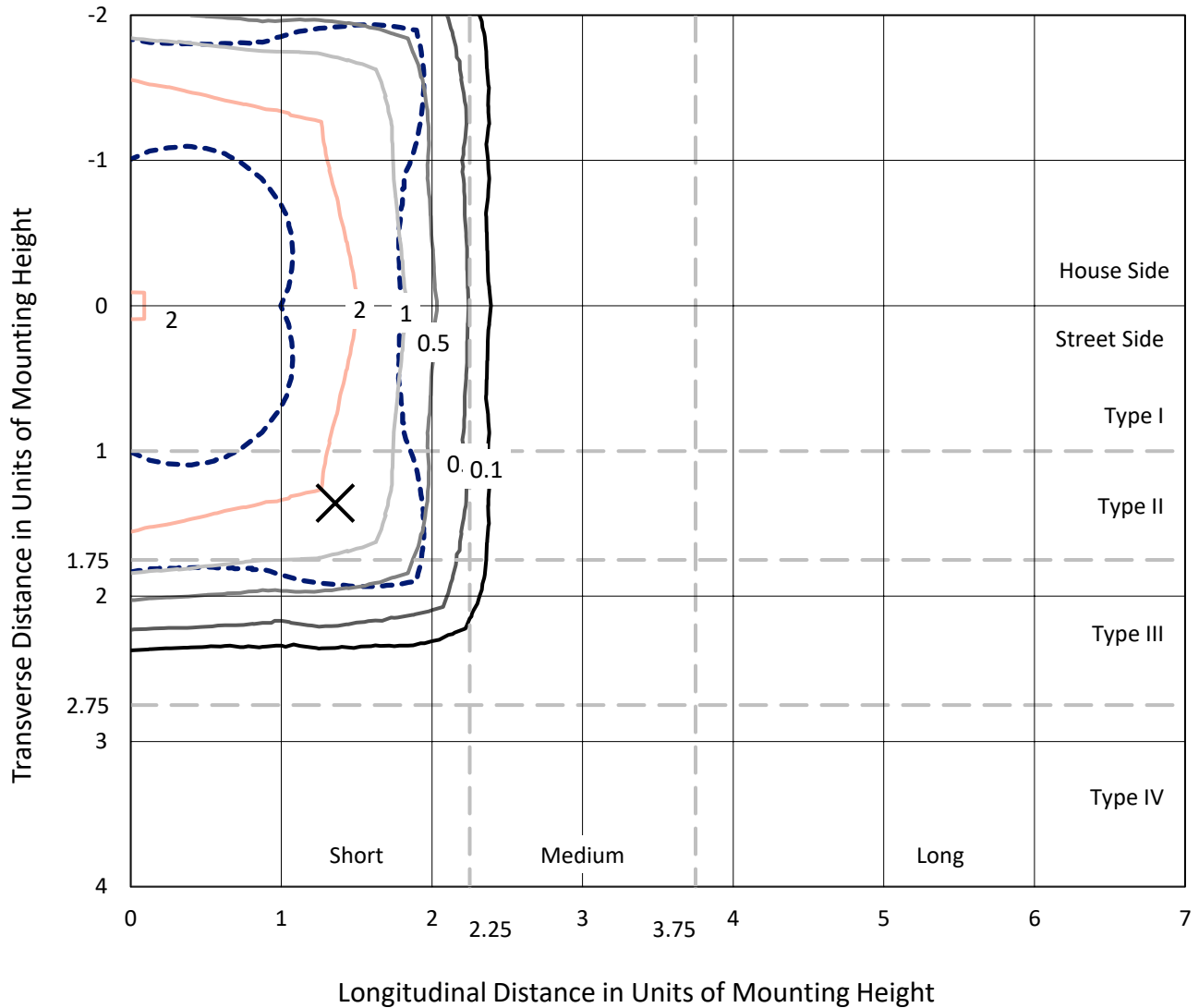
Input Watts (W): 259
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

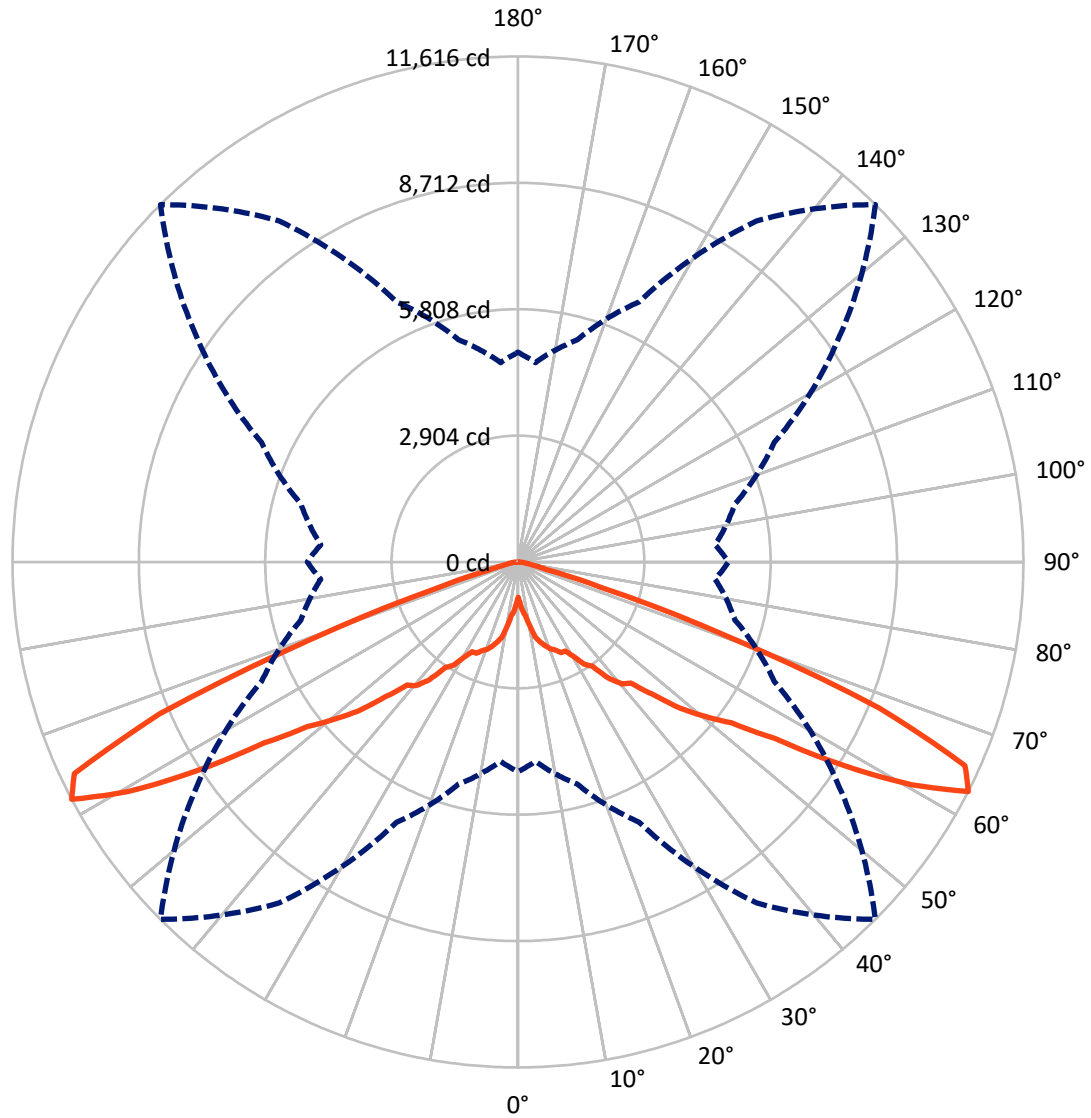
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.4 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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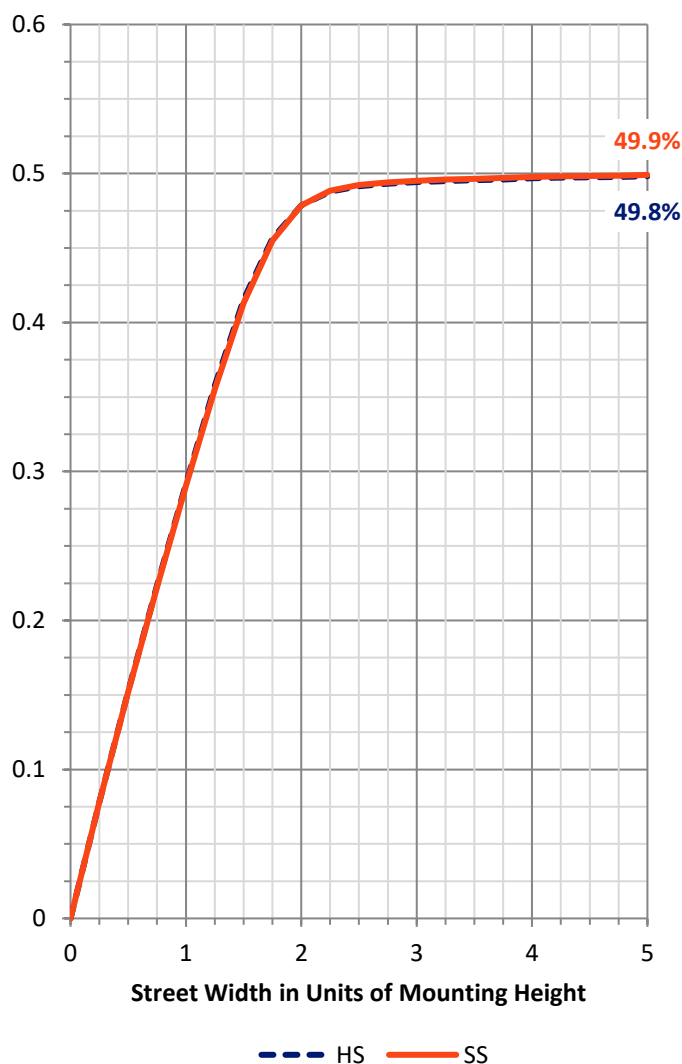
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	9894.5	0.0	9894.5
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	9894.5	0.0	9894.5
	% Fixture	50.0	0.0	50.0
Total	Lumens	19789.0	0.0	19789.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	122.0	0.6
10°-20°	537.7	2.7
20°-30°	1127.0	5.7
30°-40°	2123.3	10.7
40°-50°	3853.8	19.5
50°-60°	6511.6	32.9
60°-70°	4867.8	24.6
70°-80°	544.6	2.8
80°-90°	101.3	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°	19789.0	100.0
0°-180°	19789.0	100.0

Coefficient of Utilization



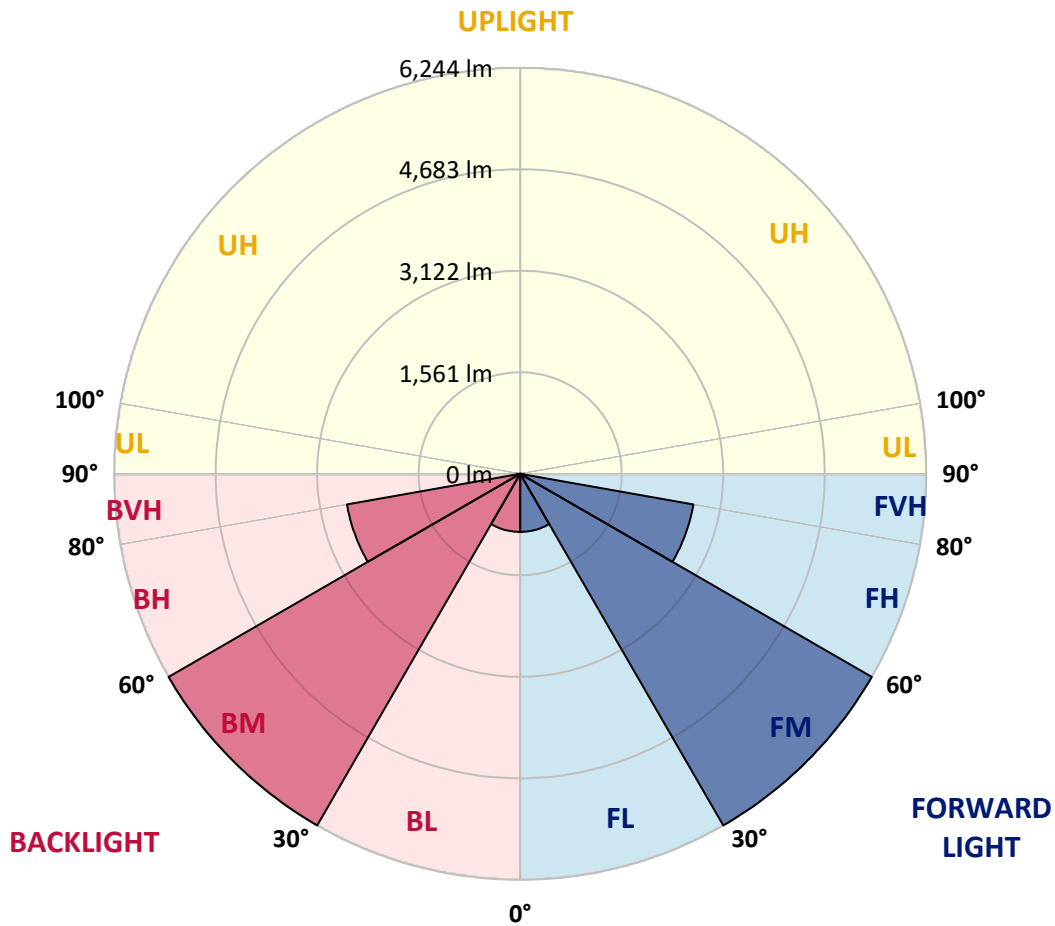
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	893.3	4.5			
FM (30°-60°)	6244.3	31.6			
FH (60°-80°)	2706.2	13.7			G2/5000
FVH (80°-90°)	50.7	0.3			G1/100
BL (0°-30°)	893.3	4.5	B2/1000		
BM (30°-60°)	6244.3	31.6	B4/8500		
BH (60°-80°)	2706.2	13.7	B4/5000		G2/5000
BVH (80°-90°)	50.7	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°	809.1	809.1	809.1	809.1	809.1	809.1	809.1	809.1	809.1	809.1	809.1
2.5°	983.8	966.1	904.1	925.9	948.4	945.2	939.5	922.6	907.3	970.9	983.8
5°	1254.3	1214.1	1192.3	1174.6	1170.6	1127.1	1186.7	1180.3	1200.4	1234.2	1267.2
7.5°	1470.1	1432.3	1375.1	1363.0	1297.8	1249.5	1301.0	1364.6	1384.8	1446.8	1483.8
10°	1549.0	1516.0	1526.5	1472.5	1469.3	1483.0	1471.7	1486.2	1539.3	1532.1	1559.5
12.5°	1726.1	1731.8	1697.9	1684.3	1711.6	1771.2	1720.5	1702.8	1689.9	1744.6	1761.5
15°	1892.0	1925.0	1869.4	1860.6	1849.3	1904.9	1850.1	1876.7	1900.0	1911.3	1904.9
17.5°	2127.1	2128.7	2066.7	1967.6	2004.7	2022.4	1998.2	1952.4	2062.7	2118.2	2121.4
20°	2281.6	2287.3	2164.9	2010.3	2115.0	2131.1	2119.0	2023.2	2169.7	2262.3	2258.3
22.5°	2448.3	2429.0	2263.1	2150.4	2187.4	2197.1	2171.3	2159.3	2262.3	2430.6	2405.6
25°	2560.2	2595.6	2430.6	2358.1	2326.7	2304.2	2337.2	2343.6	2449.1	2602.1	2517.5
27.5°	2827.5	2766.3	2507.9	2535.2	2468.4	2316.3	2461.2	2540.9	2518.3	2779.2	2842.8
30°	3065.0	3066.6	2704.3	2756.6	2632.7	2509.5	2666.5	2781.6	2753.4	3087.5	3027.2
32.5°	3368.5	3379.8	3043.3	2903.2	2819.4	2796.1	2776.8	2904.0	3079.5	3350.0	3355.6
35°	3696.2	3792.8	3335.5	3188.2	3045.7	2942.6	3053.7	3230.0	3344.4	3776.7	3700.2
37.5°	4334.6	4172.0	3797.6	3520.7	3429.7	3388.6	3447.4	3549.7	3796.8	4169.6	4300.8
40°	4712.2	4667.1	4157.5	3925.6	3574.6	3684.1	3651.9	3932.1	4136.6	4692.9	4705.0
42.5°	5289.5	5062.4	4604.3	4309.7	3994.1	3804.1	4005.3	4381.3	4628.5	5098.7	5320.9
45°	5746.0	5454.5	5101.1	4877.3	4478.7	4337.8	4410.3	4891.8	5201.7	5524.6	5816.8
47.5°	6250.7	5935.2	5581.7	5184.0	4795.1	5024.6	4896.6	5320.1	5622.8	6085.7	6359.4
50°	6885.2	6535.8	6083.3	5754.8	5497.2	5577.7	5557.6	5859.5	6233.0	6654.9	6965.7
52.5°	7584.0	7188.7	6752.3	6447.2	6338.5	6138.8	6399.7	6523.7	6799.0	7185.5	7550.2
55°	8072.7	7677.4	7413.3	7511.5	7482.5	7162.1	7390.8	7403.6	7270.8	7410.1	7777.2
57.5°	7997.0	7619.4	7583.2	7954.3	8509.0	8819.0	8465.6	7705.6	7208.0	7142.8	7531.7
60°	6992.2	6669.4	7001.1	7838.4	9454.2	10397.8	9037.2	7477.7	6658.1	6319.2	6694.4
62.5°	4818.5	4600.3	5287.9	6596.9	9567.7	11615.9	9016.2	6497.9	5163.9	4548.8	4840.2
65°	2284.1	2205.2	2785.6	4182.5	7969.6	11290.6	7877.0	4396.6	2972.4	2374.2	2440.2
67.5°	859.0	819.6	1022.5	1847.7	5019.8	8955.1	5295.1	2168.9	1149.7	893.7	924.2
70°	487.9	459.7	486.3	673.9	2020.8	5072.1	2284.1	743.9	488.7	445.2	474.2
72.5°	384.0	362.3	366.3	407.4	697.2	1991.0	739.1	424.3	355.0	337.3	363.1
75°	317.2	297.9	297.1	319.6	406.6	646.5	417.8	324.5	287.4	274.5	295.5
77.5°	252.0	240.7	243.9	261.7	291.4	361.5	302.7	262.5	235.9	220.6	235.1
80°	184.4	182.8	195.6	211.7	217.4	243.1	227.0	211.7	188.4	166.7	172.3
82.5°	120.8	121.6	145.7	158.6	156.2	155.4	162.6	161.8	140.9	110.3	110.3
85°	69.2	70.8	89.4	99.8	98.2	78.1	103.1	103.9	90.2	66.8	64.4
87.5°	22.5	28.2	38.6	41.1	39.4	21.7	39.4	43.5	39.4	28.2	25.0
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)