

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: LUMARK

Report Number: P459856

Luminaire Tested: **NAV-SA4A-AMB-U-5MQ**

Issue Date: 1/6/2021

Test Information

Test Method: LM-79-08
Report Number: P459856
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2003-697-3)
Test Lab: INNOVATION CENTER
Issue Date: 1/6/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SA4A-AMB-U-5MQ
Description: NAVION AREA AND ROADWAY LUMINAIRE
(4) NARROW BAND AMBER, 500mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE V MEDIUM OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4281 lumens
Efficiency: N/A
Efficacy: 53.6 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type V - Short - Full Cutoff
BUG Rating: B3 - U0 - G1

Input Watts (W): 79.9
Input Voltage (V): NR
Input Current (A_{in}): 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

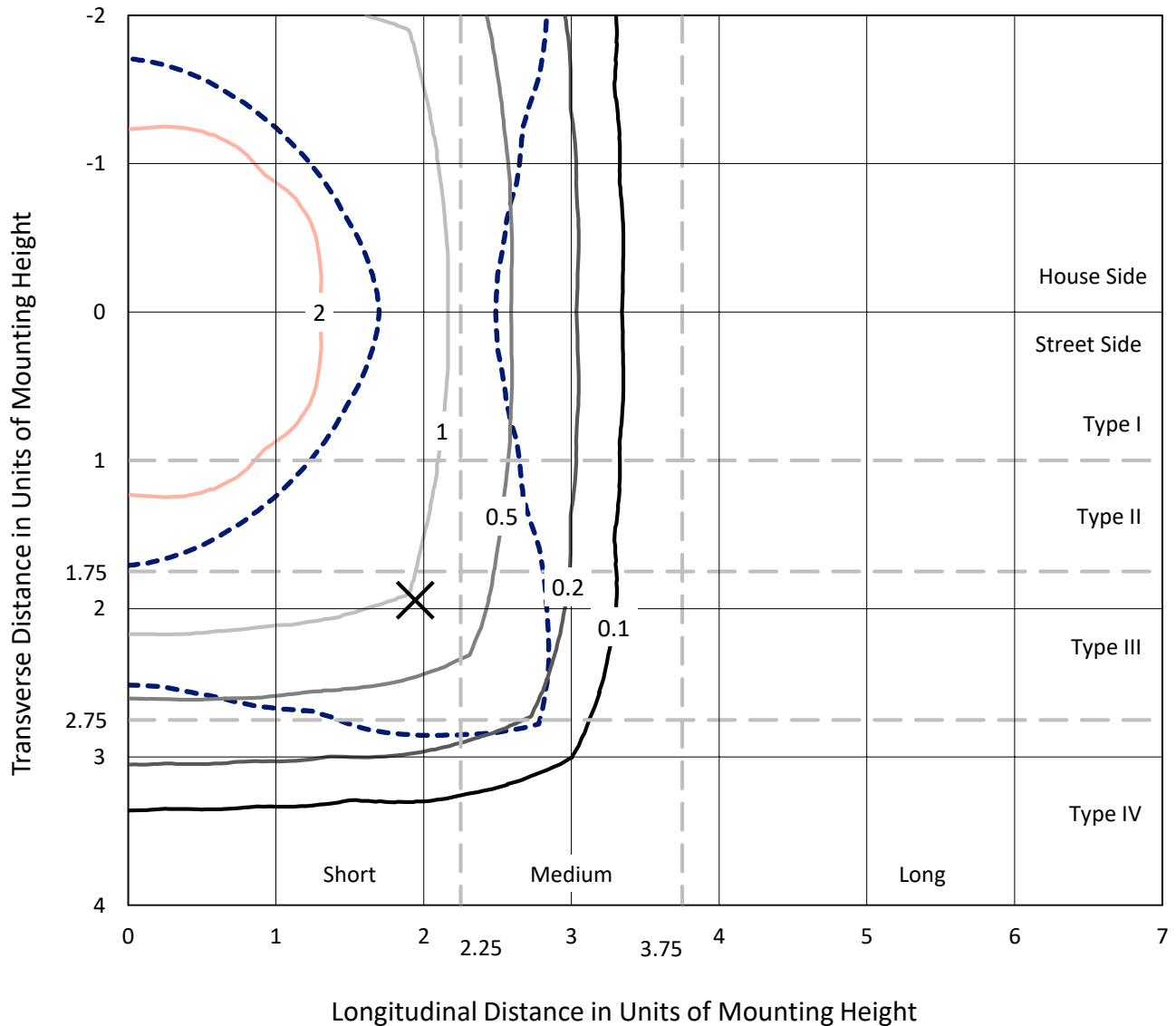


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

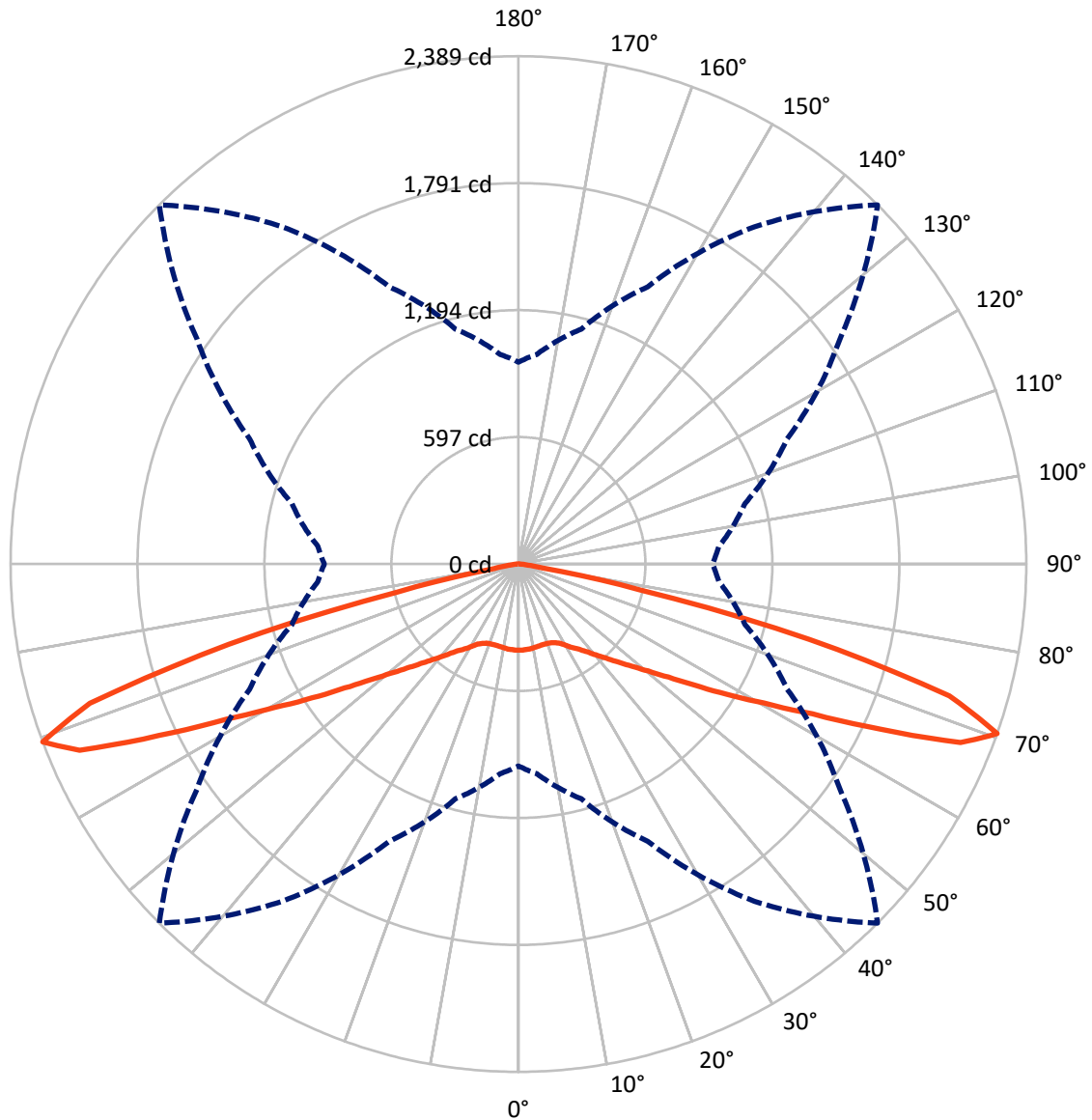


Based on 10 foot mounting height. Maximum calculated value = 4.1 fc
 Type V - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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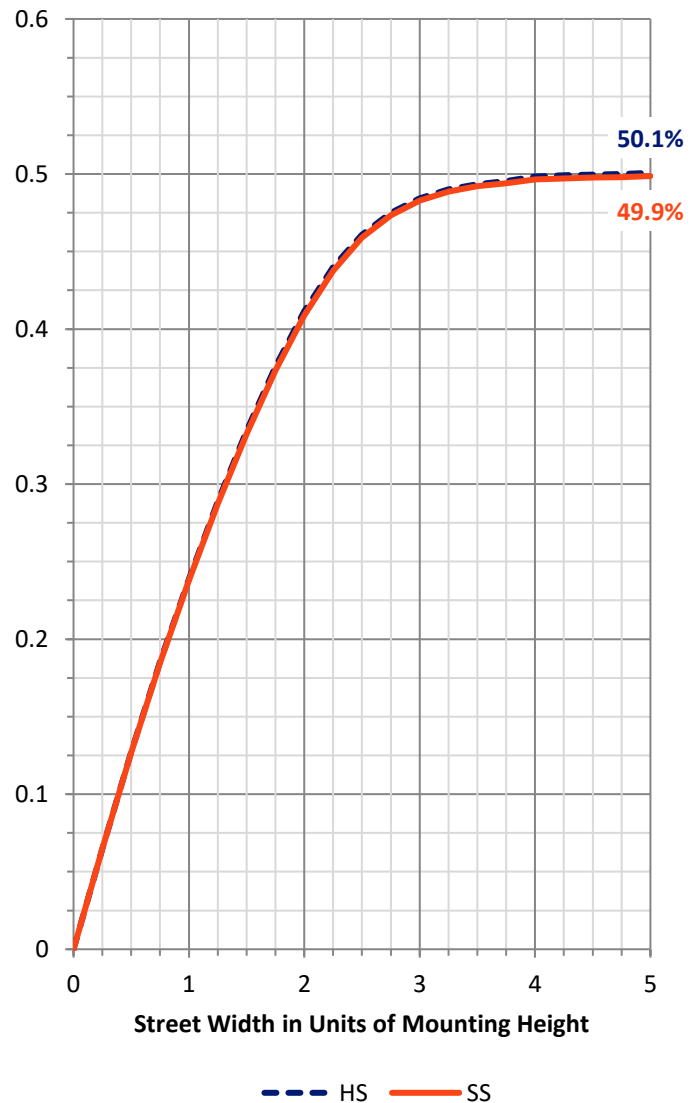
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2140.5	0.0	2140.5
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	2140.5	0.0	2140.5
	% Fixture	50.0	0.0	50.0
Total	Lumens	4281.0	0.0	4281.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	38.5	0.9
10°-20°	111.7	2.6
20°-30°	189.4	4.4
30°-40°	310.5	7.3
40°-50°	519.1	12.1
50°-60°	911.4	21.3
60°-70°	1497.3	35.0
70°-80°	675.0	15.8
80°-90°	28.1	0.7
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°	4281.0	100.0
0°-180°	4281.0	100.0



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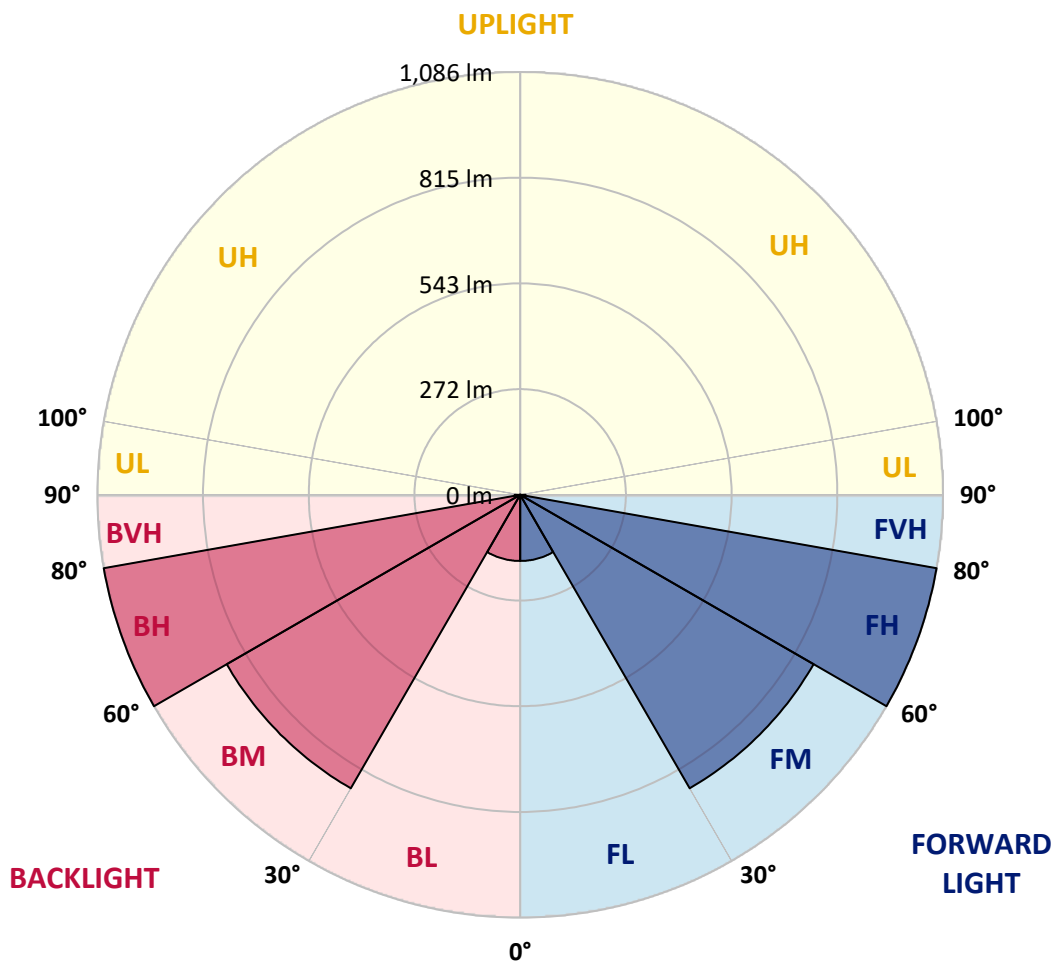
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	169.8	4.0			
FM (30°-60°)	870.5	20.3			
FH (60°-80°)	1086.1	25.4			G1/1800
FVH (80°-90°)	14.0	0.3			G1/100
BL (0°-30°)	169.8	4.0	B1/500		
BM (30°-60°)	870.5	20.3	B1/1000		
BH (60°-80°)	1086.1	25.4	B3/2500		G1/1800
BVH (80°-90°)	14.0	0.3			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G1

Type V Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	405.1	405.1	405.1	405.1	405.1	405.1	405.1	405.1	405.1	405.1	405.1
2.5°	406.8	406.8	406.8	406.8	405.1	405.1	405.1	405.1	405.1	405.1	405.1
5°	406.8	406.8	406.8	405.1	405.1	403.3	405.1	403.3	403.3	403.3	405.1
7.5°	406.8	406.8	406.8	405.1	405.1	403.3	403.3	401.6	401.6	401.6	401.6
10°	401.6	401.6	401.6	401.6	401.6	399.8	399.8	398.1	398.1	398.1	398.1
12.5°	396.3	398.1	396.3	396.3	398.1	398.1	396.3	394.6	392.8	392.8	394.6
15°	392.8	392.8	392.8	392.8	396.3	396.3	396.3	392.8	391.1	391.1	391.1
17.5°	389.4	389.4	389.4	392.8	394.6	396.3	394.6	392.8	391.1	387.6	387.6
20°	387.6	387.6	389.4	392.8	396.3	398.1	398.1	394.6	391.1	387.6	387.6
22.5°	387.6	387.6	391.1	396.3	399.8	401.6	401.6	398.1	394.6	391.1	391.1
25°	394.6	392.8	396.3	403.3	408.6	410.3	412.1	406.8	401.6	398.1	396.3
27.5°	405.1	406.8	410.3	417.3	424.3	422.5	424.3	420.8	417.3	412.1	412.1
30°	426.0	426.0	431.3	438.2	443.5	445.2	445.2	441.7	436.5	433.0	431.3
32.5°	450.5	450.5	455.7	464.4	467.9	469.7	467.9	464.4	457.4	452.2	450.5
35°	474.9	474.9	481.9	492.4	495.9	492.4	494.1	490.6	485.4	481.9	480.1
37.5°	504.6	504.6	513.3	522.0	527.3	523.8	529.0	527.3	520.3	516.8	515.1
40°	539.5	541.3	550.0	560.5	560.5	562.2	567.4	569.2	562.2	558.7	555.2
42.5°	583.2	586.6	593.6	604.1	605.9	605.9	612.8	614.6	611.1	604.1	600.6
45°	635.5	639.0	649.5	660.0	660.0	656.5	667.0	675.7	668.7	658.2	654.7
47.5°	696.6	700.1	714.1	722.8	726.3	717.6	733.3	743.8	735.1	728.1	721.1
50°	770.0	777.0	790.9	804.9	801.4	790.9	811.9	824.1	818.9	803.1	797.9
52.5°	848.5	853.8	881.7	895.7	895.7	883.5	911.4	921.9	906.2	885.2	878.2
55°	955.0	953.3	972.5	1003.9	1016.2	1003.9	1026.6	1030.1	1009.2	991.7	979.5
57.5°	1065.0	1068.5	1094.7	1124.4	1141.9	1155.8	1155.8	1147.1	1117.4	1084.3	1077.3
60°	1192.5	1203.0	1234.4	1272.8	1307.7	1326.9	1297.3	1279.8	1234.4	1206.5	1196.0
62.5°	1333.9	1347.9	1395.0	1457.9	1513.8	1552.2	1503.3	1454.4	1396.8	1353.1	1346.1
65°	1377.6	1389.8	1482.3	1618.5	1782.6	1873.4	1718.0	1601.1	1464.9	1374.1	1363.6
67.5°	1281.5	1286.8	1403.8	1637.7	1967.7	2241.8	1899.6	1606.3	1398.5	1267.6	1260.6
70°	949.8	990.0	1143.6	1438.7	1936.3	2388.5	1845.5	1395.0	1103.5	946.3	913.1
72.5°	557.0	548.2	665.2	955.0	1581.9	2119.6	1501.5	946.3	679.2	560.5	534.3
75°	218.2	221.7	277.6	441.7	895.7	1412.5	899.2	445.2	247.9	202.5	200.8
77.5°	75.1	76.8	83.8	106.5	288.1	583.2	296.8	108.3	82.1	87.3	89.0
80°	47.1	45.4	50.6	52.4	62.9	115.2	68.1	55.9	54.1	54.1	55.9
82.5°	24.4	26.2	34.9	36.7	38.4	43.6	43.6	41.9	36.7	27.9	24.4
85°	15.7	12.2	24.4	26.2	24.4	22.7	27.9	31.4	27.9	15.7	17.5
87.5°	7.0	7.0	12.2	12.2	12.2	8.7	12.2	17.5	17.5	7.0	7.0
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)