

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: P963098

Luminaire Tested: **NAV-SB2D-827-U-RW**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P963098
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-19)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB2D-827-U-RW
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 80 CRI, 2700K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND RECTANGULAR
WIDE OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 18677.5 lumens
Efficiency: N/A
Efficacy: 126.5 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type III - Medium
BUG Rating: B4 - U0 - G4

Input Watts (W): 147.6
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: 24 FT

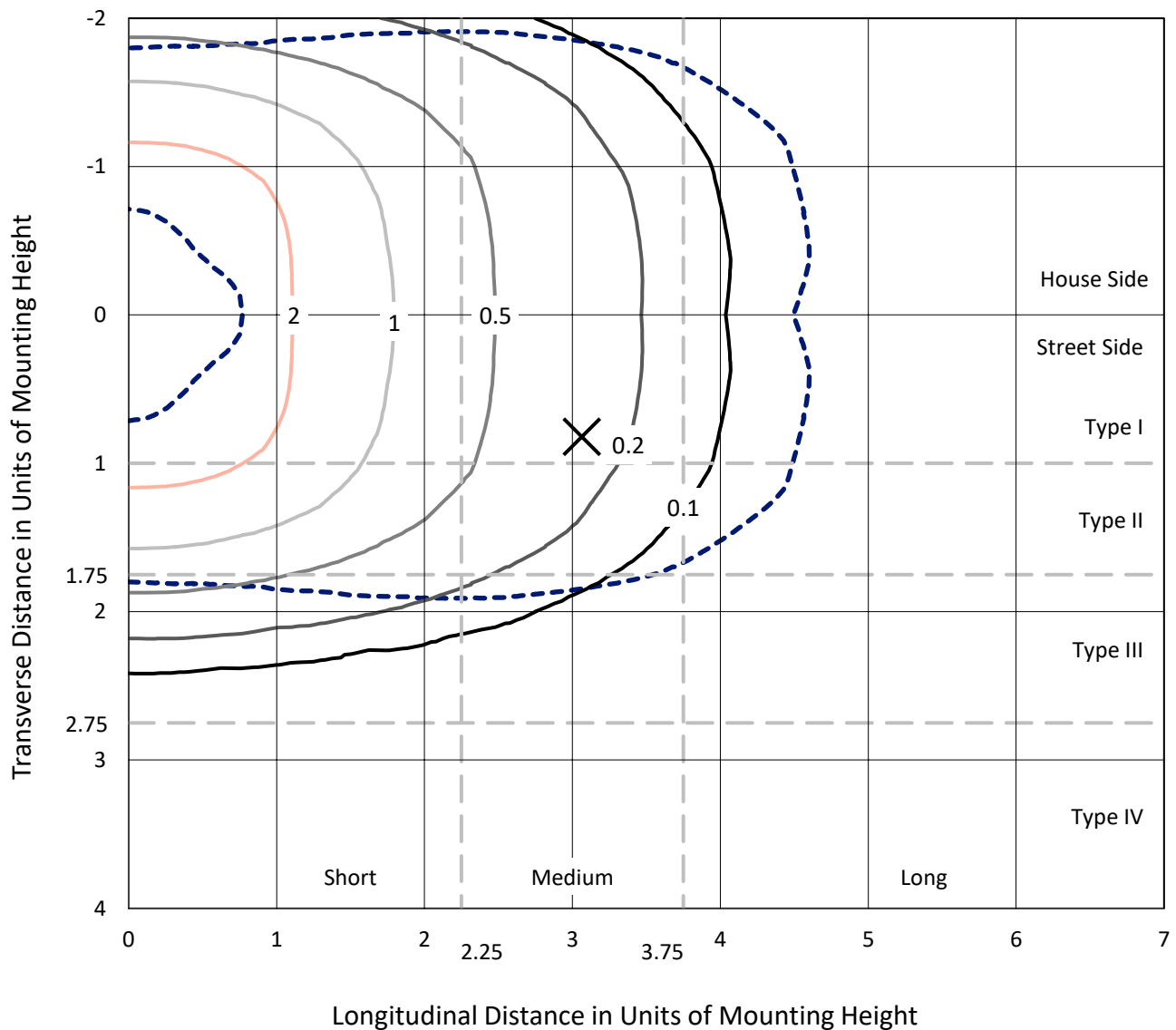


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Iso-Footcandle Lines of Horizontal Illumination

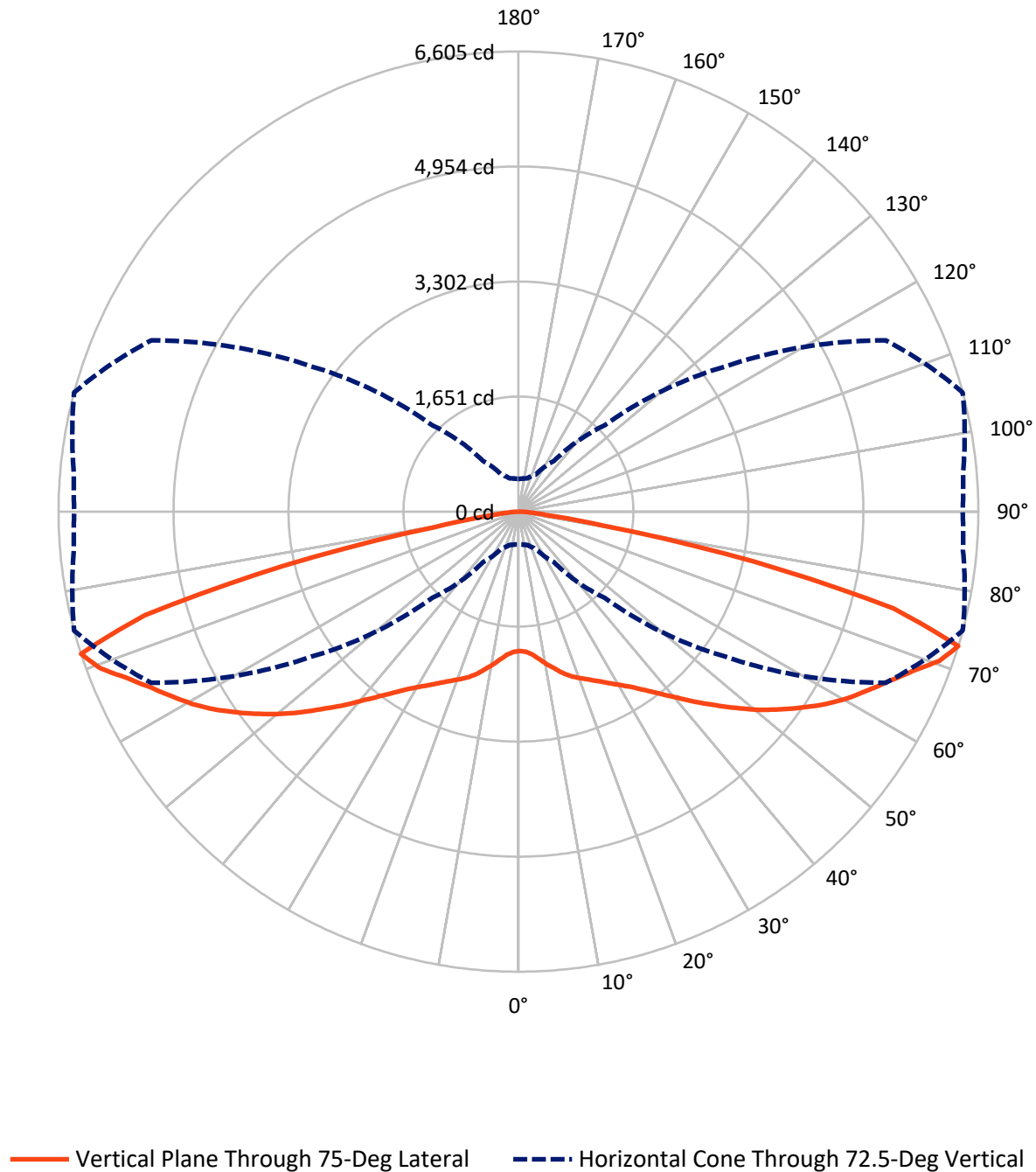
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.5 fc
Type III - Medium - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	9338.8	0.0	9338.8
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	9338.8	0.0	9338.8
	% Fixture	50.0	0.0	50.0
Total	Lumens	18677.5	0.0	18677.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	196.0	1.0
10°-20°	646.4	3.5
20°-30°	1249.0	6.7
30°-40°	2109.1	11.3
40°-50°	3344.7	17.9
50°-60°	4478.2	24.0
60°-70°	4261.8	22.8
70°-80°	2223.9	11.9
80°-90°	168.3	0.9
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°	18677.5	100.0
0°-180°	18677.5	100.0

Coefficient of Utilization



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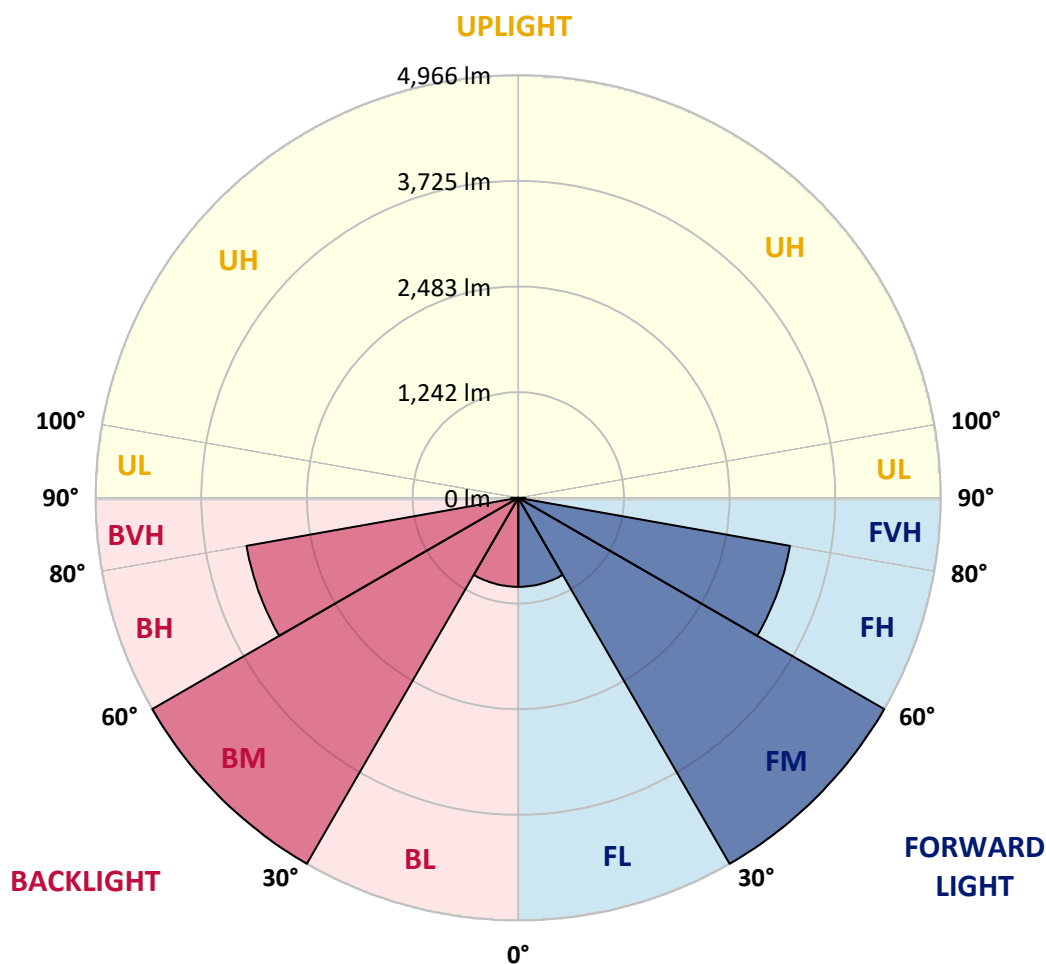
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1045.7	5.6			
FM	(30°-60°)	4966.0	26.6			
FH	(60°-80°)	3242.9	17.4			G2/5000
FVH	(80°-90°)	84.2	0.5			G1/100
BL	(0°-30°)	1045.7	5.6	B3/2500		
BM	(30°-60°)	4966.0	26.6	B3/5000		
BH	(60°-80°)	3242.9	17.4	B4/5000		G4/5000
BVH	(80°-90°)	84.2	0.5			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G4

Type III Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	2000.7	2000.7	2000.7	2000.7	2000.7	2000.7	2000.7	2000.7	2000.7	2000.7	2000.7
2.5°	2000.7	1998.7	2000.7	2002.6	2001.6	2001.6	2006.4	2009.3	2015.0	2014.0	2013.1
5°	1987.4	1986.3	1994.0	2002.6	2009.3	2020.7	2035.0	2045.5	2058.9	2061.7	2061.7
7.5°	1980.7	1977.8	1991.2	2006.4	2027.4	2056.0	2083.6	2112.3	2135.2	2142.8	2144.7
10°	1985.4	1986.3	2004.5	2033.1	2066.5	2106.6	2145.6	2194.3	2226.7	2234.3	2242.0
12.5°	2007.4	2005.5	2036.0	2081.8	2127.5	2178.0	2223.8	2277.2	2312.5	2330.6	2338.3
15°	2047.4	2043.6	2086.5	2154.2	2221.0	2280.1	2317.3	2367.9	2408.9	2431.7	2440.3
17.5°	2095.1	2097.0	2153.3	2241.1	2328.7	2395.5	2430.8	2456.5	2488.0	2508.1	2517.6
20°	2179.0	2182.8	2245.8	2349.7	2449.9	2526.1	2554.7	2545.2	2553.8	2569.1	2580.5
22.5°	2291.6	2293.4	2364.1	2476.6	2581.5	2665.4	2684.5	2645.3	2621.5	2632.0	2639.6
25°	2422.2	2434.6	2505.2	2620.5	2728.3	2808.4	2817.0	2757.9	2698.7	2701.6	2706.4
27.5°	2581.5	2592.9	2664.4	2778.9	2888.6	2958.1	2957.2	2878.0	2791.3	2769.3	2776.0
30°	2754.1	2766.5	2839.9	2958.1	3060.1	3121.2	3107.9	3013.4	2889.5	2848.5	2853.2
32.5°	2959.1	2966.8	3041.1	3159.4	3253.8	3302.3	3274.8	3158.4	3003.9	2957.2	2968.6
35°	3207.0	3218.5	3273.7	3385.4	3468.3	3508.4	3461.6	3324.3	3150.7	3098.4	3106.0
37.5°	3490.2	3482.6	3545.6	3644.7	3713.4	3738.2	3674.3	3511.2	3318.6	3256.6	3268.1
40°	3785.8	3782.0	3850.7	3946.0	3983.3	3998.5	3904.1	3725.8	3512.2	3445.4	3467.4
42.5°	4053.9	4051.0	4143.5	4249.3	4294.1	4277.0	4157.8	3953.7	3736.3	3660.0	3679.0
45°	4268.4	4264.6	4378.1	4526.8	4614.5	4586.0	4425.7	4205.5	3963.3	3884.1	3902.2
47.5°	4433.4	4435.3	4557.4	4741.4	4895.0	4905.4	4699.4	4462.0	4213.1	4123.5	4150.1
50°	4552.6	4558.3	4689.0	4893.0	5102.9	5195.3	4978.8	4725.2	4471.6	4370.5	4400.9
52.5°	4582.2	4592.6	4750.0	4989.4	5236.3	5412.7	5263.1	4977.9	4716.6	4620.3	4645.1
55°	4424.8	4445.8	4645.1	4981.7	5318.3	5555.8	5512.9	5234.5	4963.6	4864.4	4892.1
57.5°	4063.4	4092.9	4325.6	4765.2	5300.3	5654.0	5706.5	5480.5	5210.6	5115.3	5137.2
60°	3557.1	3592.3	3815.5	4295.2	5044.6	5690.3	5842.8	5719.8	5437.5	5345.1	5365.1
62.5°	2793.1	2838.9	3106.0	3668.6	4504.9	5521.5	5959.1	5936.3	5641.6	5526.3	5539.6
65°	1791.9	1840.5	2121.9	2786.5	3784.9	5004.6	5995.4	6147.0	5857.2	5696.0	5716.0
67.5°	1080.5	1102.4	1241.6	1688.9	2766.5	4225.5	5688.3	6380.7	6108.9	5908.6	5923.9
70°	691.4	703.8	786.7	991.8	1563.9	3083.1	4927.4	6424.6	6414.0	6127.0	6125.1
72.5°	469.1	473.0	495.0	587.4	885.0	1751.8	3634.2	5816.2	6604.8	6408.3	6377.9
75°	343.3	364.3	399.5	415.7	502.6	875.5	2082.7	4086.3	5566.3	5652.2	5444.2
77.5°	255.5	256.6	305.1	324.2	358.5	466.3	881.2	2281.0	3455.9	3628.5	3236.6
80°	216.5	205.0	204.1	261.3	269.9	290.9	393.8	787.7	1237.8	750.5	567.4
82.5°	180.2	167.8	151.6	204.1	184.1	178.4	170.7	320.4	393.8	193.6	165.0
85°	125.9	120.1	114.4	133.6	104.9	89.7	82.0	149.8	165.9	82.0	72.5
87.5°	54.3	56.3	57.2	59.1	43.9	31.5	31.5	41.9	41.9	32.4	23.9
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)