

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: P882242

Luminaire Tested: **NAV-SB2A-740-U-5WQ**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P882242
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-1)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB2A-740-U-5WQ
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 70 CRI, 4000K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE V WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9970 lumens
Efficiency: N/A
Efficacy: 174.0 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type V - Short
BUG Rating: B4 - U0 - G2

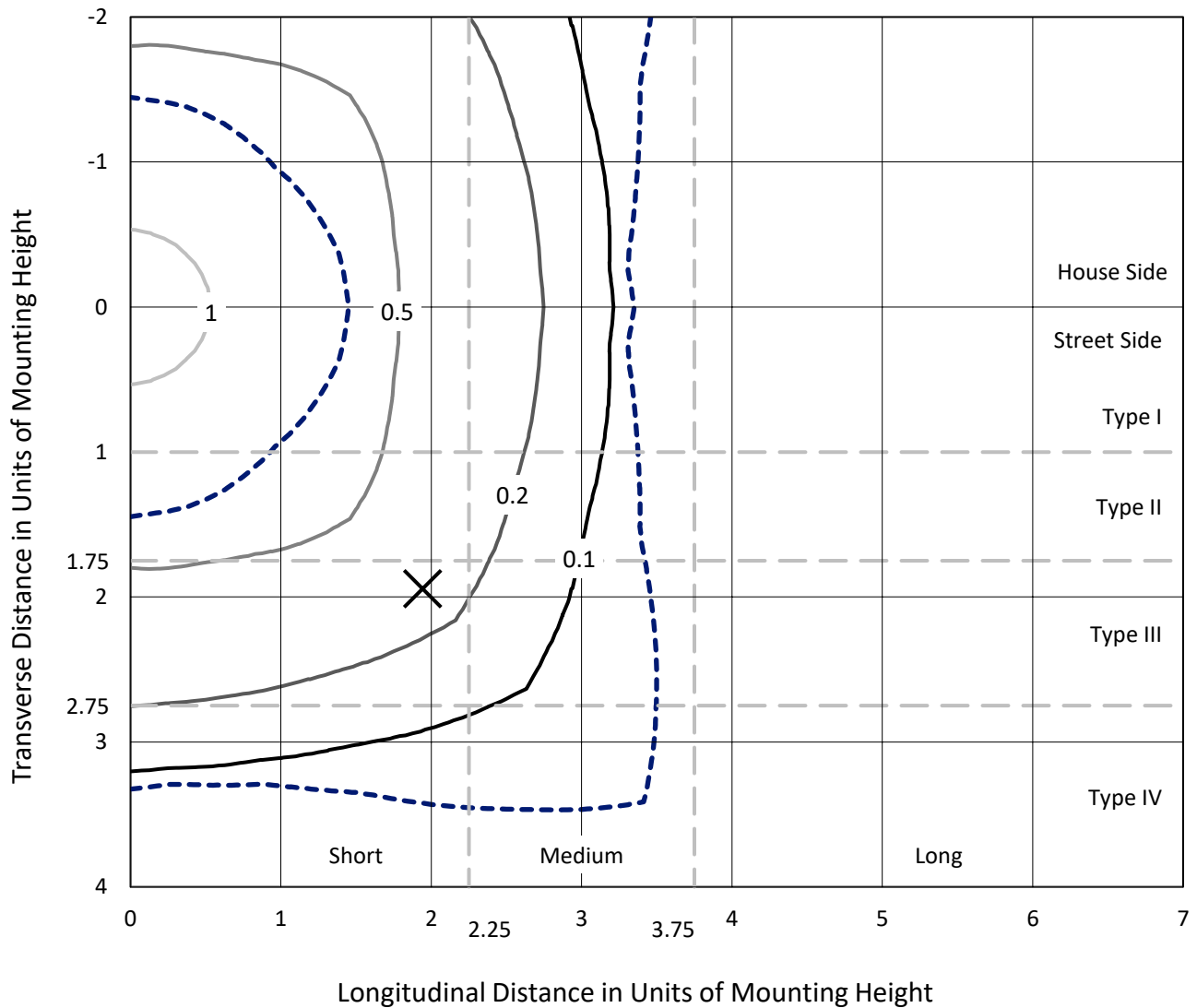
Input Watts (W): 57.3
Input Voltage (V): 120.0
Input Current (Ain): 0.484
Voltage Rise (V): NR
Power Factor: 0.994
Total Harmonic Distortion (THDi): 9.038
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

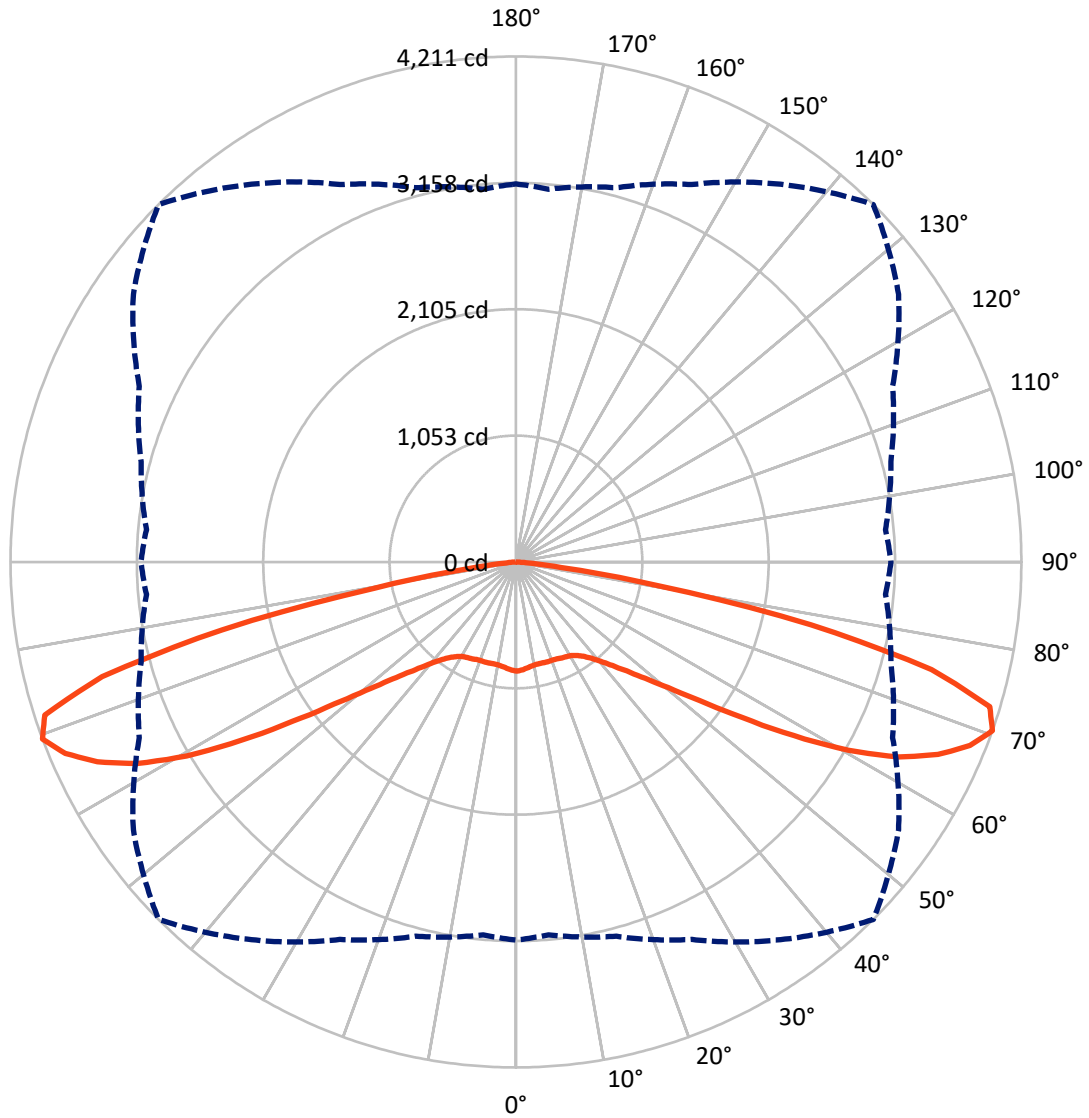
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.5 fc
 Type V - Short - N/A

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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 | 4985.0 | 0.0 | 4985.0 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Street Side | Lumens | 4985.0 | 0.0 | 4985.0 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Total | Lumens | 9970.0 | 0.0 | 9970.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 84.6 | 0.8 |
| 10°-20° | 248.4 | 2.5 |
| 20°-30° | 413.4 | 4.1 |
| 30°-40° | 625.2 | 6.3 |
| 40°-50° | 1038.9 | 10.4 |
| 50°-60° | 1960.3 | 19.7 |
| 60°-70° | 3310.1 | 33.2 |
| 70°-80° | 2175.1 | 21.8 |
| 80°-90° | 114.0 | 1.1 |
| 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° | 9970.0 | 100.0 |
| 0°-180° | 9970.0 | 100.0 |

Coefficient of Utilization



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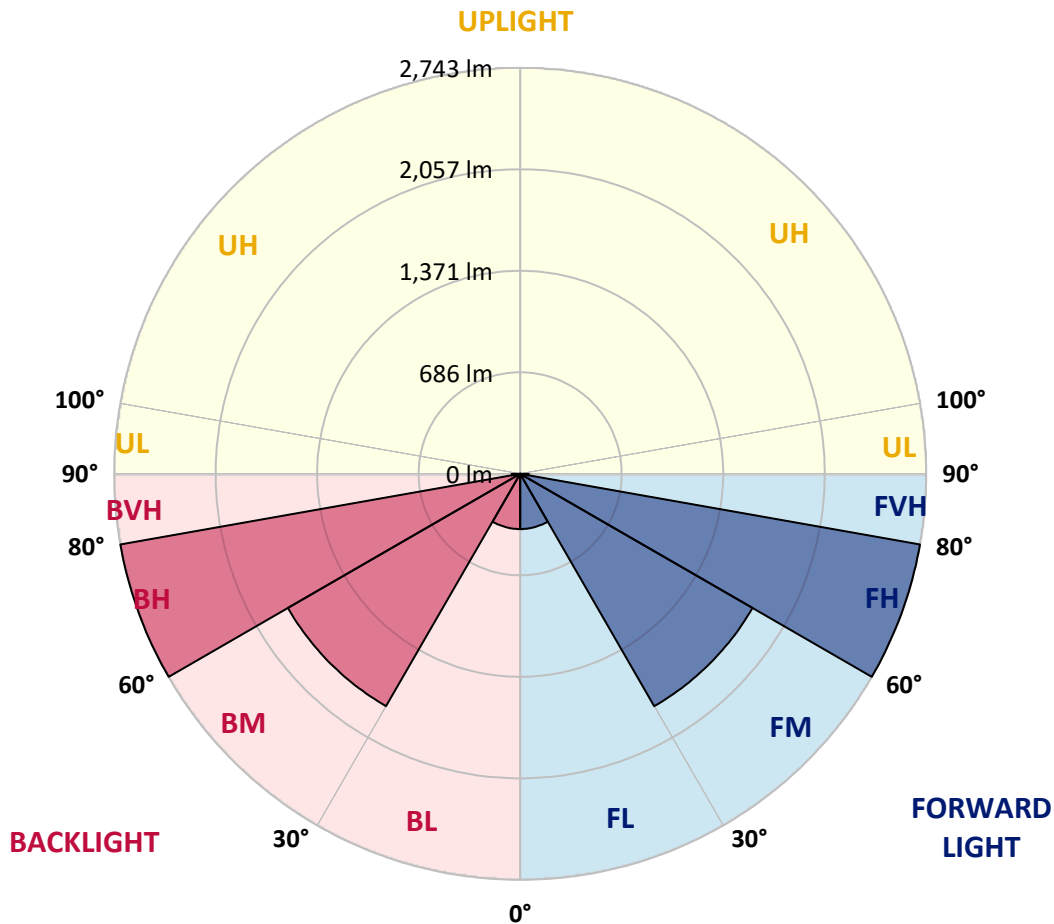
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 373.2 | 3.7 | | | |
| FM (30°-60°) | 1812.2 | 18.2 | | | |
| FH (60°-80°) | 2742.6 | 27.5 | | | G2/5000 |
| FVH (80°-90°) | 57.0 | 0.6 | | | G1/100 |
| BL (0°-30°) | 373.2 | 3.7 | B1/500 | | |
| BM (30°-60°) | 1812.2 | 18.2 | B2/2500 | | |
| BH (60°-80°) | 2742.6 | 27.5 | B4/5000 | | G2/5000 |
| BVH (80°-90°) | 57.0 | 0.6 | | | 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° | 909.5 | 909.5 | 909.5 | 909.5 | 909.5 | 909.5 | 909.5 | 909.5 | 909.5 | 909.5 | 909.5 |
| 2.5° | 903.8 | 906.4 | 905.3 | 903.2 | 903.2 | 901.7 | 903.2 | 904.3 | 905.8 | 906.9 | 906.4 |
| 5° | 891.8 | 893.9 | 893.4 | 891.8 | 892.4 | 890.8 | 891.8 | 893.4 | 894.4 | 895.0 | 895.0 |
| 7.5° | 881.5 | 883.6 | 882.5 | 879.9 | 879.9 | 878.4 | 878.9 | 880.4 | 882.0 | 882.5 | 882.5 |
| 10° | 878.9 | 881.0 | 877.9 | 873.7 | 872.2 | 870.1 | 870.6 | 872.2 | 875.3 | 876.8 | 876.8 |
| 12.5° | 879.9 | 881.5 | 878.4 | 872.2 | 870.6 | 868.5 | 868.5 | 870.1 | 874.2 | 876.3 | 876.8 |
| 15° | 883.0 | 884.6 | 879.9 | 873.2 | 871.6 | 870.1 | 869.6 | 871.6 | 876.3 | 879.9 | 880.4 |
| 17.5° | 888.7 | 890.3 | 883.0 | 873.7 | 871.6 | 872.2 | 871.6 | 873.2 | 880.4 | 887.2 | 887.2 |
| 20° | 893.9 | 895.0 | 885.1 | 873.7 | 871.6 | 872.2 | 871.6 | 874.7 | 884.1 | 893.4 | 893.9 |
| 22.5° | 895.5 | 896.5 | 887.2 | 877.3 | 875.8 | 876.3 | 875.8 | 878.9 | 887.7 | 897.0 | 897.0 |
| 25° | 896.0 | 897.5 | 890.3 | 882.5 | 885.1 | 886.1 | 885.1 | 885.6 | 892.4 | 900.7 | 900.1 |
| 27.5° | 903.8 | 905.8 | 899.1 | 892.4 | 893.9 | 893.4 | 895.0 | 896.5 | 901.7 | 910.0 | 907.9 |
| 30° | 919.8 | 921.4 | 915.7 | 908.9 | 907.9 | 904.3 | 908.9 | 914.1 | 919.8 | 927.1 | 925.5 |
| 32.5° | 946.3 | 949.4 | 942.1 | 934.9 | 930.2 | 928.1 | 931.7 | 940.6 | 948.3 | 956.1 | 953.0 |
| 35° | 990.3 | 992.4 | 985.6 | 972.2 | 963.9 | 963.9 | 967.0 | 978.4 | 990.8 | 1000.7 | 997.0 |
| 37.5° | 1052.5 | 1055.1 | 1043.2 | 1027.1 | 1014.7 | 1014.7 | 1018.8 | 1030.7 | 1049.4 | 1063.4 | 1058.2 |
| 40° | 1128.2 | 1131.8 | 1116.8 | 1100.2 | 1088.2 | 1086.2 | 1091.4 | 1104.8 | 1122.5 | 1140.1 | 1134.4 |
| 42.5° | 1219.4 | 1223.5 | 1203.8 | 1189.3 | 1180.0 | 1180.0 | 1182.6 | 1195.0 | 1211.1 | 1232.8 | 1231.3 |
| 45° | 1336.0 | 1343.2 | 1316.3 | 1301.8 | 1292.9 | 1295.0 | 1296.6 | 1307.5 | 1322.0 | 1346.8 | 1345.8 |
| 47.5° | 1474.8 | 1482.1 | 1453.6 | 1438.6 | 1437.0 | 1446.9 | 1440.6 | 1448.4 | 1456.2 | 1484.7 | 1476.4 |
| 50° | 1632.4 | 1644.8 | 1625.1 | 1624.1 | 1627.2 | 1645.3 | 1630.8 | 1635.0 | 1626.2 | 1644.3 | 1633.4 |
| 52.5° | 1825.1 | 1843.3 | 1839.7 | 1845.9 | 1880.6 | 1917.9 | 1884.7 | 1870.2 | 1837.1 | 1842.8 | 1823.6 |
| 55° | 2058.9 | 2086.3 | 2091.5 | 2128.8 | 2207.6 | 2283.8 | 2213.3 | 2154.7 | 2084.3 | 2071.3 | 2051.1 |
| 57.5° | 2324.7 | 2346.5 | 2371.3 | 2447.5 | 2594.7 | 2729.9 | 2594.7 | 2465.1 | 2354.2 | 2327.8 | 2309.2 |
| 60° | 2610.8 | 2637.7 | 2661.5 | 2774.0 | 2992.7 | 3182.9 | 2988.5 | 2782.8 | 2636.2 | 2600.4 | 2569.3 |
| 62.5° | 2918.1 | 2952.8 | 2969.4 | 3094.3 | 3349.2 | 3576.2 | 3352.8 | 3103.6 | 2940.9 | 2902.5 | 2871.4 |
| 65° | 3212.9 | 3241.4 | 3260.1 | 3393.3 | 3636.8 | 3864.3 | 3653.4 | 3407.8 | 3240.4 | 3190.1 | 3165.2 |
| 67.5° | 3350.3 | 3365.8 | 3411.4 | 3562.2 | 3819.2 | 4078.9 | 3862.8 | 3578.3 | 3391.2 | 3303.1 | 3304.1 |
| 70° | 3149.2 | 3117.6 | 3227.4 | 3468.9 | 3841.0 | 4210.5 | 3890.7 | 3461.7 | 3232.6 | 3089.6 | 3123.8 |
| 72.5° | 2433.5 | 2379.1 | 2569.8 | 2982.8 | 3592.3 | 4126.5 | 3617.1 | 3006.2 | 2688.5 | 2398.3 | 2470.3 |
| 75° | 1324.0 | 1262.4 | 1525.6 | 2048.0 | 2864.7 | 3576.7 | 2930.5 | 2106.5 | 1698.7 | 1314.2 | 1399.7 |
| 77.5° | 373.6 | 350.3 | 562.8 | 990.8 | 1723.1 | 2511.3 | 1789.4 | 1012.6 | 667.5 | 395.9 | 440.0 |
| 80° | 114.5 | 110.9 | 150.3 | 298.5 | 731.7 | 1202.8 | 703.2 | 302.1 | 191.2 | 120.7 | 127.5 |
| 82.5° | 67.9 | 62.2 | 74.6 | 108.8 | 186.6 | 377.8 | 181.4 | 113.5 | 91.2 | 61.1 | 66.3 |
| 85° | 38.9 | 36.3 | 44.0 | 52.9 | 62.7 | 80.3 | 52.3 | 53.9 | 48.7 | 32.6 | 34.2 |
| 87.5° | 16.1 | 14.5 | 17.1 | 16.6 | 14.5 | 18.7 | 14.0 | 16.6 | 19.7 | 13.0 | 11.9 |
| 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)