

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: P882452

Luminaire Tested: **NAV-SB2B-830-U-5WQ**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P882452
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-SB2B-830-U-5WQ
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 80 CRI, 3000K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE V WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10157 lumens
Efficiency: N/A
Efficacy: 137.4 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type V - Short
BUG Rating: B4 - U0 - G2

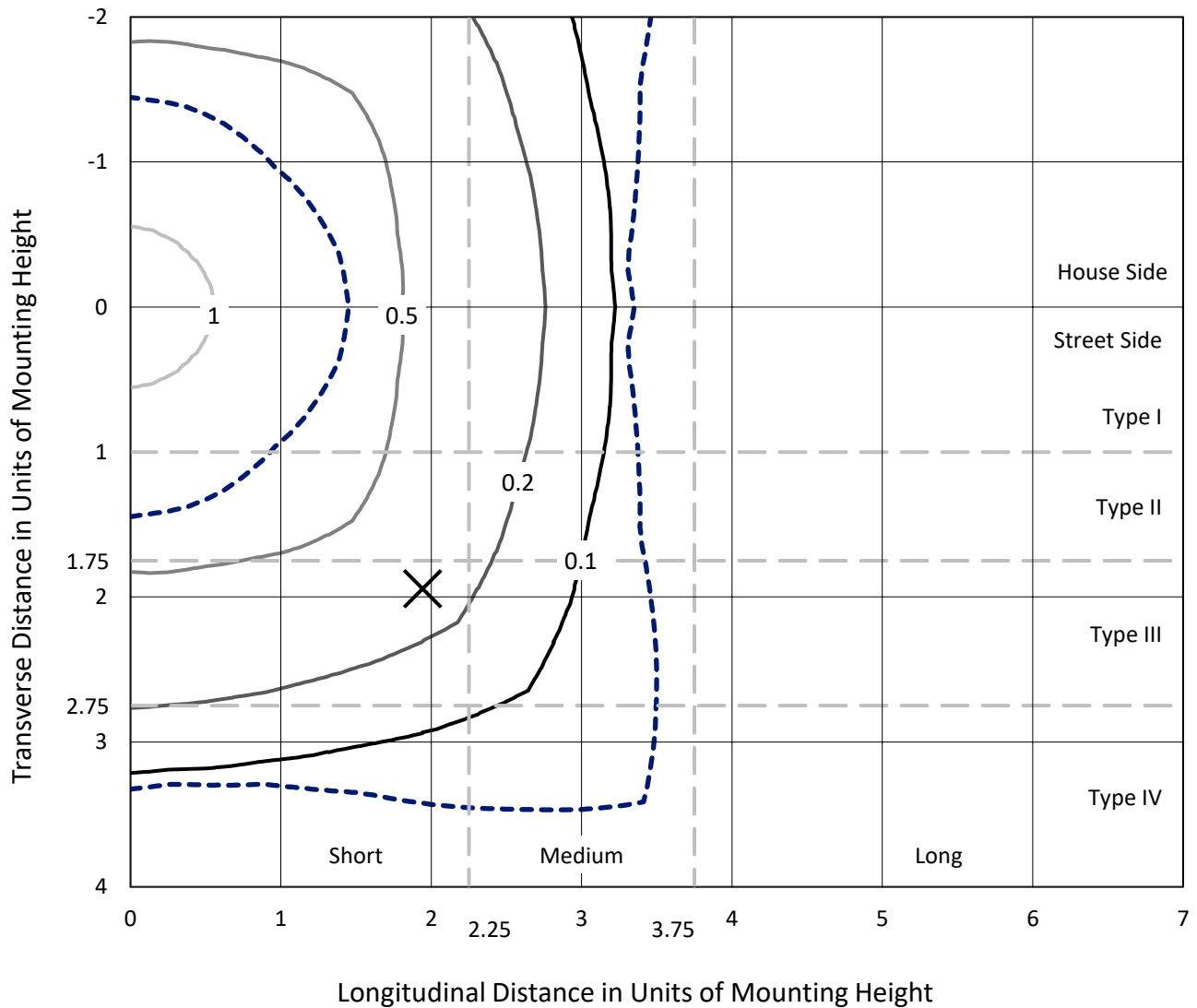
Input Watts (W): 73.9
Input Voltage (V): 120.0
Input Current (Ain): 0.627
Voltage Rise (V): NR
Power Factor: 0.988
Total Harmonic Distortion (THDi): 13.593
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

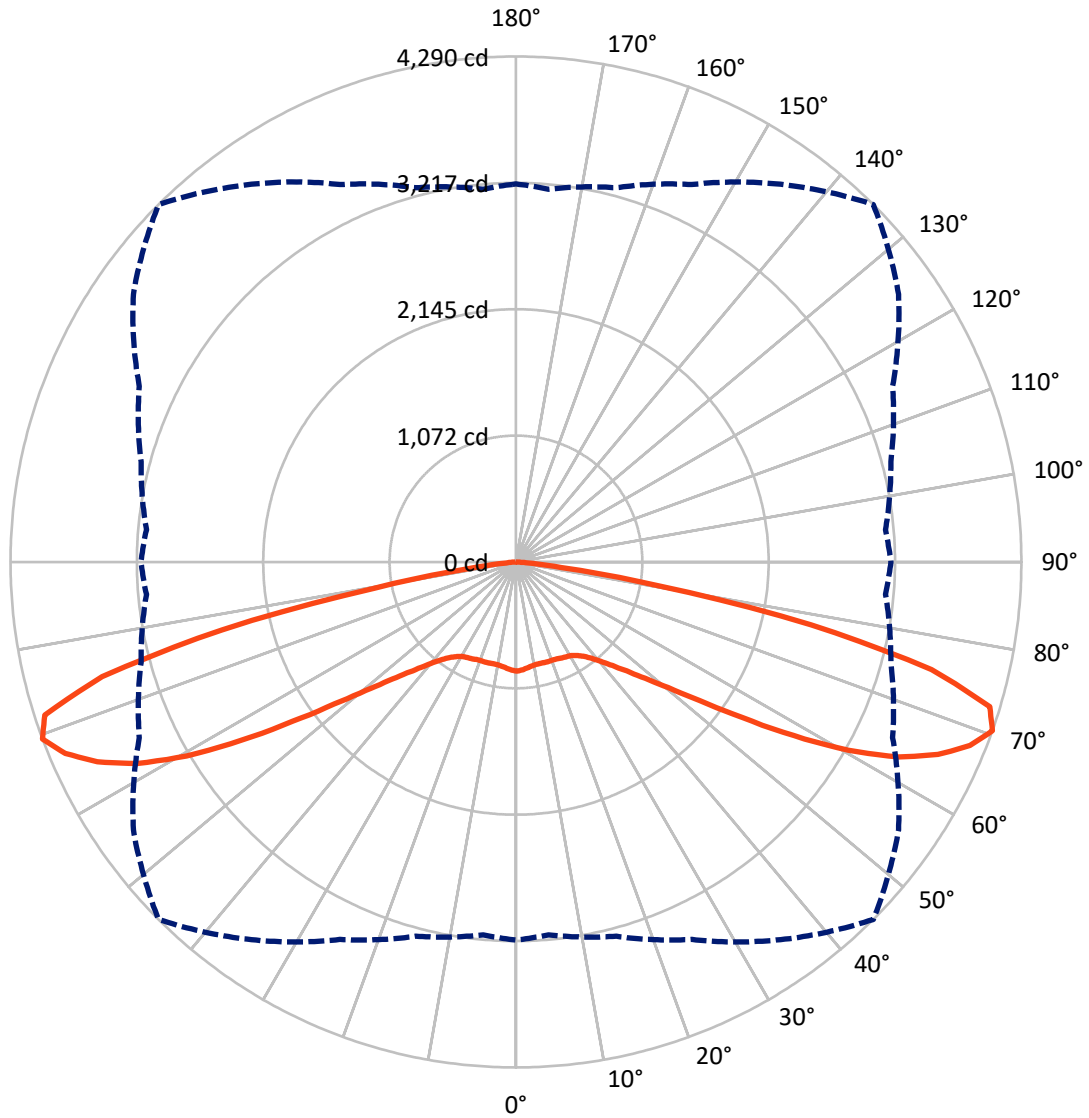
✕ Max cd
 - - - 1/2 Max cd



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 | 5078.5 | 0.0 | 5078.5 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Street Side | Lumens | 5078.5 | 0.0 | 5078.5 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Total | Lumens | 10157.0 | 0.0 | 10157.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 86.2 | 0.8 |
| 10°-20° | 253.1 | 2.5 |
| 20°-30° | 421.1 | 4.1 |
| 30°-40° | 636.9 | 6.3 |
| 40°-50° | 1058.4 | 10.4 |
| 50°-60° | 1997.1 | 19.7 |
| 60°-70° | 3372.2 | 33.2 |
| 70°-80° | 2215.9 | 21.8 |
| 80°-90° | 116.1 | 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° | 10157.0 | 100.0 |
| 0°-180° | 10157.0 | 100.0 |



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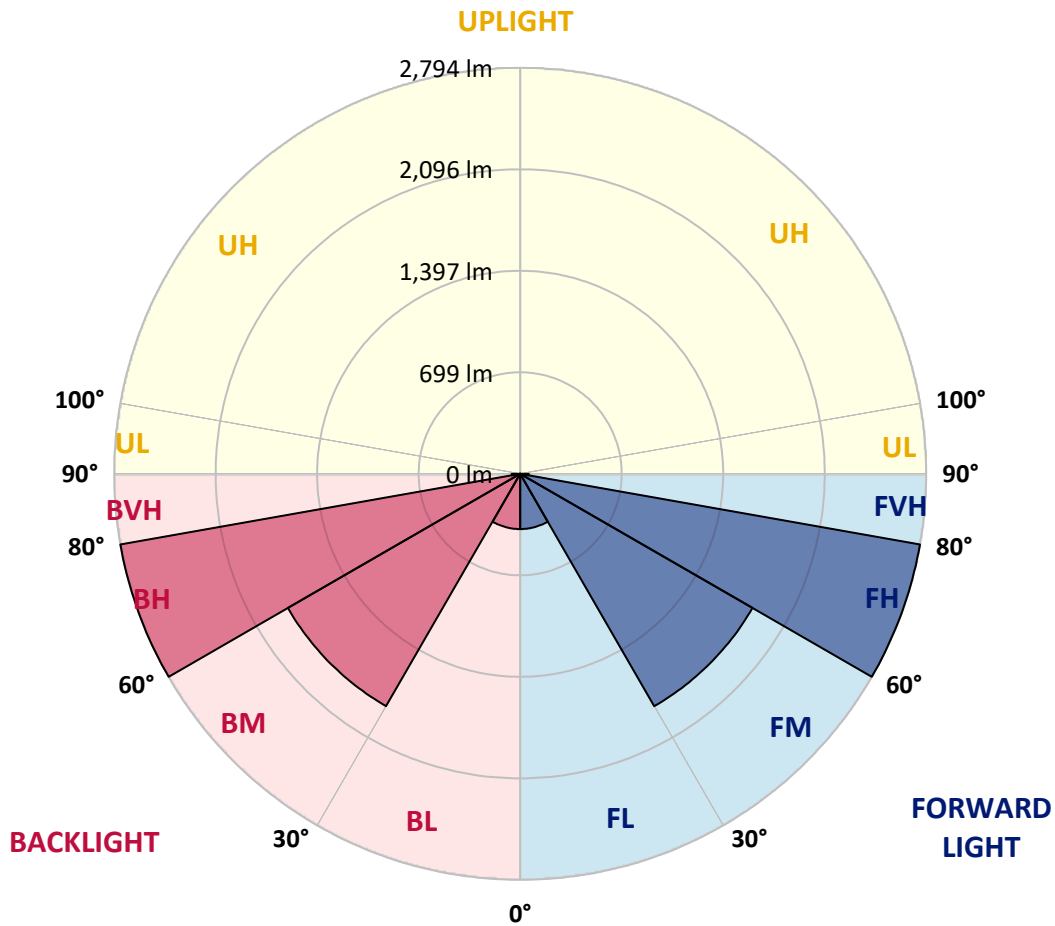
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 380.2 | 3.7 | | | |
| FM (30°-60°) | 1846.2 | 18.2 | | | |
| FH (60°-80°) | 2794.1 | 27.5 | | | G2/5000 |
| FVH (80°-90°) | 58.0 | 0.6 | | | G1/100 |
| BL (0°-30°) | 380.2 | 3.7 | B1/500 | | |
| BM (30°-60°) | 1846.2 | 18.2 | B2/2500 | | |
| BH (60°-80°) | 2794.1 | 27.5 | B4/5000 | | G2/5000 |
| BVH (80°-90°) | 58.0 | 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° | 926.5 | 926.5 | 926.5 | 926.5 | 926.5 | 926.5 | 926.5 | 926.5 | 926.5 | 926.5 | 926.5 |
| 2.5° | 920.7 | 923.4 | 922.3 | 920.2 | 920.2 | 918.6 | 920.2 | 921.2 | 922.8 | 923.9 | 923.4 |
| 5° | 908.6 | 910.7 | 910.2 | 908.6 | 909.1 | 907.5 | 908.6 | 910.2 | 911.2 | 911.7 | 911.7 |
| 7.5° | 898.0 | 900.1 | 899.1 | 896.4 | 896.4 | 894.8 | 895.4 | 897.0 | 898.5 | 899.1 | 899.1 |
| 10° | 895.4 | 897.5 | 894.3 | 890.1 | 888.5 | 886.4 | 886.9 | 888.5 | 891.7 | 893.3 | 893.3 |
| 12.5° | 896.4 | 898.0 | 894.8 | 888.5 | 886.9 | 884.8 | 884.8 | 886.4 | 890.6 | 892.7 | 893.3 |
| 15° | 899.6 | 901.2 | 896.4 | 889.6 | 888.0 | 886.4 | 885.9 | 888.0 | 892.7 | 896.4 | 897.0 |
| 17.5° | 905.4 | 907.0 | 899.6 | 890.1 | 888.0 | 888.5 | 888.0 | 889.6 | 897.0 | 903.8 | 903.8 |
| 20° | 910.7 | 911.7 | 901.7 | 890.1 | 888.0 | 888.5 | 888.0 | 891.2 | 900.7 | 910.2 | 910.7 |
| 22.5° | 912.3 | 913.3 | 903.8 | 893.8 | 892.2 | 892.7 | 892.2 | 895.4 | 904.3 | 913.9 | 913.9 |
| 25° | 912.8 | 914.4 | 907.0 | 899.1 | 901.7 | 902.8 | 901.7 | 902.2 | 909.1 | 917.5 | 917.0 |
| 27.5° | 920.7 | 922.8 | 916.0 | 909.1 | 910.7 | 910.2 | 911.7 | 913.3 | 918.6 | 927.1 | 924.9 |
| 30° | 937.1 | 938.7 | 932.9 | 926.0 | 924.9 | 921.2 | 926.0 | 931.3 | 937.1 | 944.5 | 942.9 |
| 32.5° | 964.0 | 967.2 | 959.8 | 952.4 | 947.6 | 945.5 | 949.2 | 958.2 | 966.1 | 974.0 | 970.9 |
| 35° | 1008.9 | 1011.0 | 1004.1 | 990.4 | 982.0 | 982.0 | 985.1 | 996.7 | 1009.4 | 1019.4 | 1015.7 |
| 37.5° | 1072.2 | 1074.9 | 1062.7 | 1046.4 | 1033.7 | 1033.7 | 1037.9 | 1050.1 | 1069.1 | 1083.3 | 1078.0 |
| 40° | 1149.3 | 1153.0 | 1137.7 | 1120.8 | 1108.7 | 1106.5 | 1111.8 | 1125.6 | 1143.5 | 1161.5 | 1155.6 |
| 42.5° | 1242.2 | 1246.5 | 1226.4 | 1211.6 | 1202.1 | 1202.1 | 1204.7 | 1217.4 | 1233.8 | 1256.0 | 1254.4 |
| 45° | 1361.0 | 1368.4 | 1341.0 | 1326.2 | 1317.2 | 1319.3 | 1320.9 | 1332.0 | 1346.8 | 1372.1 | 1371.0 |
| 47.5° | 1502.5 | 1509.9 | 1480.9 | 1465.5 | 1464.0 | 1474.0 | 1467.7 | 1475.6 | 1483.5 | 1512.5 | 1504.1 |
| 50° | 1663.0 | 1675.7 | 1655.6 | 1654.5 | 1657.7 | 1676.2 | 1661.4 | 1665.6 | 1656.7 | 1675.1 | 1664.0 |
| 52.5° | 1859.4 | 1877.9 | 1874.2 | 1880.5 | 1915.9 | 1953.9 | 1920.1 | 1905.3 | 1871.5 | 1877.3 | 1857.8 |
| 55° | 2097.5 | 2125.5 | 2130.7 | 2168.7 | 2249.0 | 2326.6 | 2254.8 | 2195.1 | 2123.3 | 2110.1 | 2089.6 |
| 57.5° | 2368.3 | 2390.5 | 2415.8 | 2493.4 | 2643.4 | 2781.2 | 2643.4 | 2511.4 | 2398.4 | 2371.5 | 2352.5 |
| 60° | 2659.7 | 2687.2 | 2711.5 | 2826.0 | 3048.8 | 3242.6 | 3044.6 | 2835.0 | 2685.6 | 2649.2 | 2617.5 |
| 62.5° | 2972.8 | 3008.2 | 3025.1 | 3152.3 | 3412.0 | 3643.3 | 3415.7 | 3161.8 | 2996.0 | 2957.0 | 2925.3 |
| 65° | 3273.2 | 3302.2 | 3321.2 | 3456.9 | 3705.0 | 3936.8 | 3721.9 | 3471.7 | 3301.2 | 3250.0 | 3224.6 |
| 67.5° | 3413.1 | 3428.9 | 3475.4 | 3629.0 | 3890.9 | 4155.4 | 3935.2 | 3645.4 | 3454.8 | 3365.0 | 3366.1 |
| 70° | 3208.3 | 3176.0 | 3288.0 | 3534.0 | 3913.0 | 4289.5 | 3963.7 | 3526.6 | 3293.2 | 3147.5 | 3182.4 |
| 72.5° | 2479.2 | 2423.7 | 2618.0 | 3038.8 | 3659.6 | 4203.9 | 3685.0 | 3062.5 | 2738.9 | 2443.3 | 2516.7 |
| 75° | 1348.9 | 1286.0 | 1554.2 | 2086.4 | 2918.4 | 3643.8 | 2985.5 | 2146.0 | 1730.6 | 1338.8 | 1425.9 |
| 77.5° | 380.6 | 356.9 | 573.3 | 1009.4 | 1755.4 | 2558.4 | 1823.0 | 1031.6 | 680.0 | 403.3 | 448.2 |
| 80° | 116.7 | 113.0 | 153.1 | 304.1 | 745.4 | 1225.3 | 716.4 | 307.8 | 194.8 | 123.0 | 129.9 |
| 82.5° | 69.2 | 63.4 | 76.0 | 110.9 | 190.1 | 384.9 | 184.8 | 115.6 | 92.9 | 62.3 | 67.6 |
| 85° | 39.6 | 37.0 | 44.9 | 53.8 | 63.9 | 81.8 | 53.3 | 54.9 | 49.6 | 33.3 | 34.8 |
| 87.5° | 16.4 | 14.8 | 17.4 | 16.9 | 14.8 | 19.0 | 14.3 | 16.9 | 20.1 | 13.2 | 12.1 |
| 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)