

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: P884242

Luminaire Tested: **NAV-SB5A-722-U-5WQ**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P884242
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-SB5A-722-U-5WQ
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 70 CRI, 2200K, 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: 18347 lumens
Efficiency: N/A
Efficacy: 129.5 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type V - Short
BUG Rating: B5 - U0 - G3

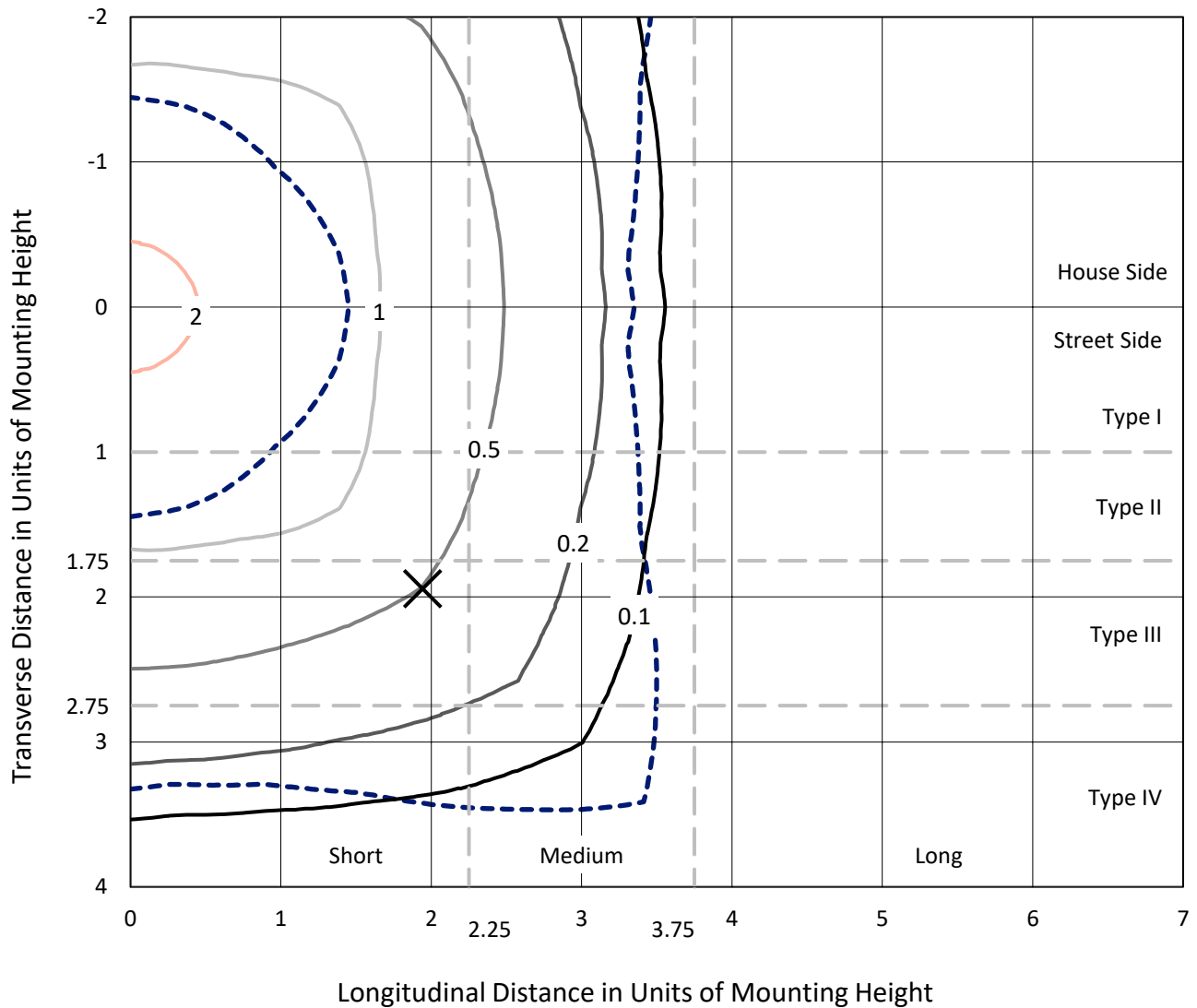
Input Watts (W): 141.7
Input Voltage (V): 120.0
Input Current (Ain): 1.201
Voltage Rise (V): NR
Power Factor: 0.992
Total Harmonic Distortion (THDi): 10.503
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P884242
 CATALOG NUMBER: NAV-SB5A-722-U-5WQ

Iso-Footcandle Lines of Horizontal Illumination

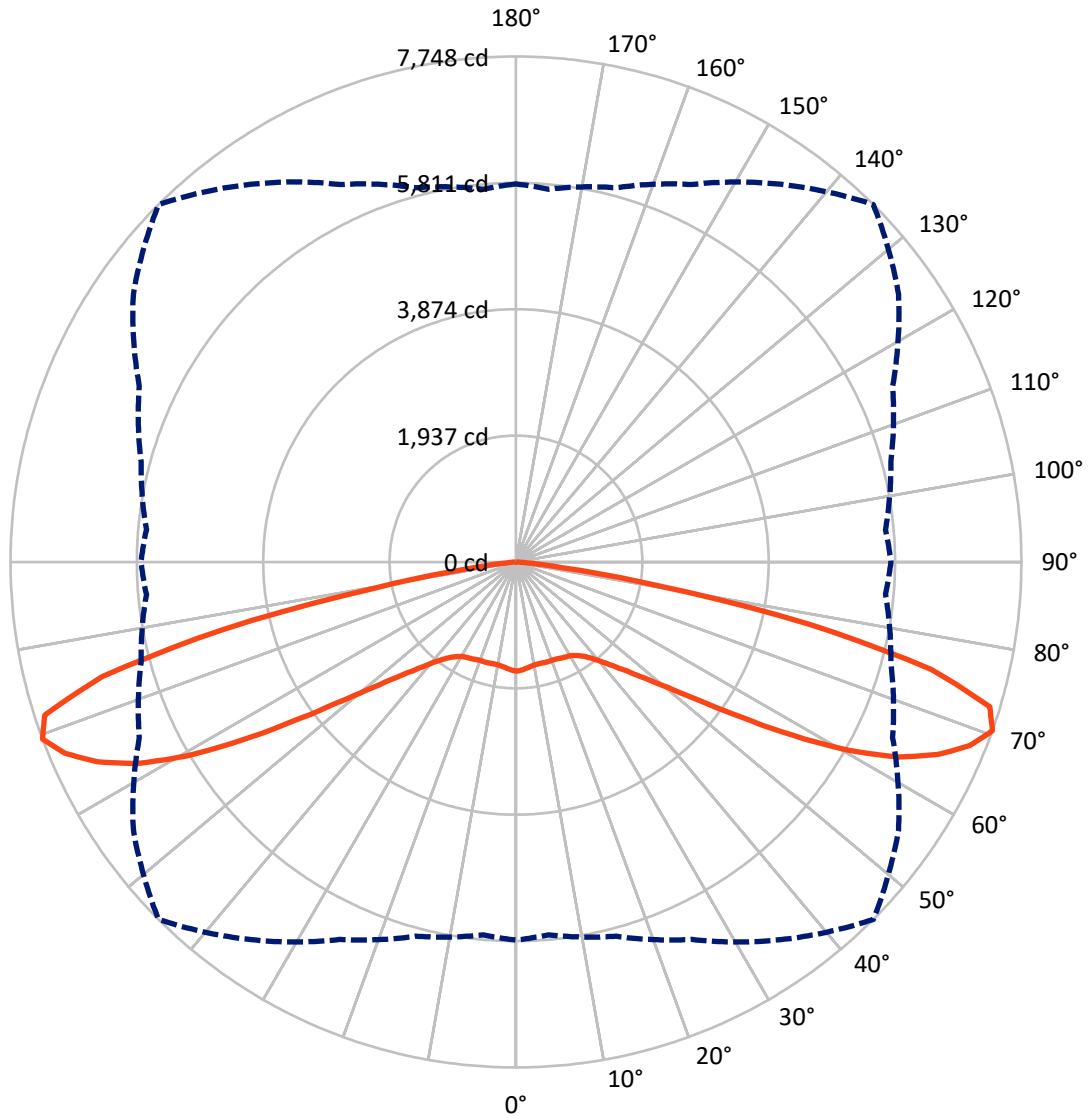
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.7 fc
 Type V - Short - N/A

REPORT NUMBER: P884242
CATALOG NUMBER: NAV-SB5A-722-U-5WQ

Luminous Intensity Polar Plot



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

REPORT NUMBER: P884242

CATALOG NUMBER: NAV-SB5A-722-U-5WQ

FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 9173.5 | 0.0 | 9173.5 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Street Side | Lumens | 9173.5 | 0.0 | 9173.5 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Total | Lumens | 18347.0 | 0.0 | 18347.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 155.7 | 0.8 |
| 10°-20° | 457.1 | 2.5 |
| 20°-30° | 760.7 | 4.1 |
| 30°-40° | 1150.5 | 6.3 |
| 40°-50° | 1911.8 | 10.4 |
| 50°-60° | 3607.5 | 19.7 |
| 60°-70° | 6091.4 | 33.2 |
| 70°-80° | 4002.7 | 21.8 |
| 80°-90° | 209.7 | 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° | 18347.0 | 100.0 |
| 0°-180° | 18347.0 | 100.0 |

Coefficient of Utilization



REPORT NUMBER: P884242

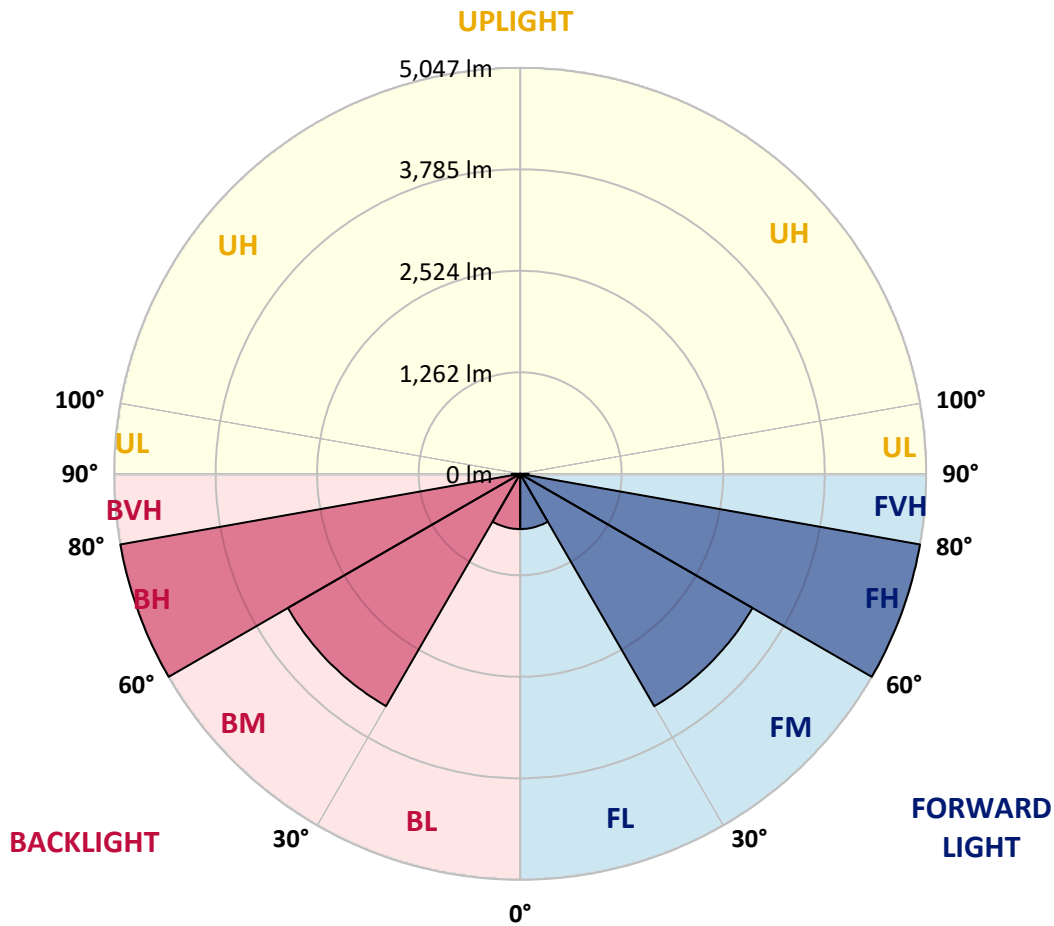
CATALOG NUMBER: NAV-SB5A-722-U-5WQ

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 686.8 | 3.7 | | | |
| FM (30°-60°) | 3334.9 | 18.2 | | | |
| FH (60°-80°) | 5047.0 | 27.5 | | | G3/7500 |
| FVH (80°-90°) | 104.8 | 0.6 | | | G2/225 |
| BL (0°-30°) | 686.8 | 3.7 | B2/1000 | | |
| BM (30°-60°) | 3334.9 | 18.2 | B3/5000 | | |
| BH (60°-80°) | 5047.0 | 27.5 | B5 | | G3/7500 |
| BVH (80°-90°) | 104.8 | 0.6 | | | G2/225 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B5-U0-G3

Type V Short



REPORT NUMBER: P884242

CATALOG NUMBER: NAV-SB5A-722-U-5WQ

CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 85° | 90° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1673.6 | 1673.6 | 1673.6 | 1673.6 | 1673.6 | 1673.6 | 1673.6 | 1673.6 | 1673.6 | 1673.6 | 1673.6 |
| 2.5° | 1663.1 | 1667.9 | 1666.0 | 1662.2 | 1662.2 | 1659.3 | 1662.2 | 1664.1 | 1666.9 | 1668.8 | 1667.9 |
| 5° | 1641.2 | 1645.0 | 1644.1 | 1641.2 | 1642.1 | 1639.3 | 1641.2 | 1644.1 | 1646.0 | 1646.9 | 1646.9 |
| 7.5° | 1622.1 | 1625.9 | 1624.0 | 1619.3 | 1619.3 | 1616.4 | 1617.4 | 1620.2 | 1623.1 | 1624.0 | 1624.0 |
| 10° | 1617.4 | 1621.2 | 1615.4 | 1607.8 | 1605.0 | 1601.1 | 1602.1 | 1605.0 | 1610.7 | 1613.5 | 1613.5 |
| 12.5° | 1619.3 | 1622.1 | 1616.4 | 1605.0 | 1602.1 | 1598.3 | 1598.3 | 1601.1 | 1608.8 | 1612.6 | 1613.5 |
| 15° | 1625.0 | 1627.8 | 1619.3 | 1606.9 | 1604.0 | 1601.1 | 1600.2 | 1604.0 | 1612.6 | 1619.3 | 1620.2 |
| 17.5° | 1635.5 | 1638.3 | 1625.0 | 1607.8 | 1604.0 | 1605.0 | 1604.0 | 1606.9 | 1620.2 | 1632.6 | 1632.6 |
| 20° | 1645.0 | 1646.9 | 1628.8 | 1607.8 | 1604.0 | 1605.0 | 1604.0 | 1609.7 | 1626.9 | 1644.1 | 1645.0 |
| 22.5° | 1647.9 | 1649.8 | 1632.6 | 1614.5 | 1611.6 | 1612.6 | 1611.6 | 1617.4 | 1633.6 | 1650.7 | 1650.7 |
| 25° | 1648.8 | 1651.7 | 1638.3 | 1624.0 | 1628.8 | 1630.7 | 1628.8 | 1629.7 | 1642.1 | 1657.4 | 1656.5 |
| 27.5° | 1663.1 | 1666.9 | 1654.5 | 1642.1 | 1645.0 | 1644.1 | 1646.9 | 1649.8 | 1659.3 | 1674.6 | 1670.8 |
| 30° | 1692.7 | 1695.5 | 1685.1 | 1672.7 | 1670.8 | 1664.1 | 1672.7 | 1682.2 | 1692.7 | 1706.0 | 1703.2 |
| 32.5° | 1741.3 | 1747.0 | 1733.7 | 1720.3 | 1711.8 | 1707.9 | 1714.6 | 1730.8 | 1745.1 | 1759.4 | 1753.7 |
| 35° | 1822.4 | 1826.2 | 1813.8 | 1789.0 | 1773.7 | 1773.7 | 1779.5 | 1800.4 | 1823.3 | 1841.5 | 1834.8 |
| 37.5° | 1936.8 | 1941.6 | 1919.7 | 1890.1 | 1867.2 | 1867.2 | 1874.8 | 1896.8 | 1931.1 | 1956.8 | 1947.3 |
| 40° | 2076.0 | 2082.7 | 2055.1 | 2024.6 | 2002.6 | 1998.8 | 2008.3 | 2033.1 | 2065.6 | 2098.0 | 2087.5 |
| 42.5° | 2243.9 | 2251.5 | 2215.3 | 2188.6 | 2171.4 | 2171.4 | 2176.2 | 2199.1 | 2228.6 | 2268.7 | 2265.8 |
| 45° | 2458.5 | 2471.8 | 2422.2 | 2395.5 | 2379.3 | 2383.1 | 2386.0 | 2406.0 | 2432.7 | 2478.5 | 2476.6 |
| 47.5° | 2714.0 | 2727.4 | 2674.9 | 2647.3 | 2644.4 | 2662.5 | 2651.1 | 2665.4 | 2679.7 | 2732.1 | 2716.9 |
| 50° | 3003.9 | 3026.8 | 2990.6 | 2988.7 | 2994.4 | 3027.8 | 3001.1 | 3008.7 | 2992.5 | 3025.9 | 3005.8 |
| 52.5° | 3358.7 | 3392.1 | 3385.4 | 3396.8 | 3460.7 | 3529.4 | 3468.3 | 3441.6 | 3380.6 | 3391.1 | 3355.8 |
| 55° | 3788.8 | 3839.3 | 3848.8 | 3917.5 | 4062.5 | 4202.6 | 4072.9 | 3965.2 | 3835.5 | 3811.6 | 3774.5 |
| 57.5° | 4278.0 | 4318.0 | 4363.8 | 4504.0 | 4774.8 | 5023.7 | 4774.8 | 4536.4 | 4332.3 | 4283.7 | 4249.4 |
| 60° | 4804.4 | 4854.0 | 4897.8 | 5104.8 | 5507.2 | 5857.2 | 5499.6 | 5121.0 | 4851.1 | 4785.3 | 4728.1 |
| 62.5° | 5369.9 | 5433.8 | 5464.3 | 5694.1 | 6163.3 | 6581.0 | 6170.0 | 5711.3 | 5411.8 | 5341.3 | 5284.0 |
| 65° | 5912.5 | 5964.9 | 5999.3 | 6244.4 | 6692.6 | 7111.2 | 6723.1 | 6271.1 | 5963.0 | 5870.5 | 5824.8 |
| 67.5° | 6165.2 | 6193.8 | 6277.7 | 6555.2 | 7028.2 | 7506.0 | 7108.3 | 6584.8 | 6240.5 | 6078.4 | 6080.3 |
| 70° | 5795.2 | 5737.0 | 5939.2 | 6383.6 | 7068.3 | 7748.2 | 7159.8 | 6370.2 | 5948.7 | 5685.5 | 5748.5 |
| 72.5° | 4478.2 | 4378.1 | 4729.0 | 5489.1 | 6610.5 | 7593.7 | 6656.3 | 5532.0 | 4947.4 | 4413.4 | 4545.9 |
| 75° | 2436.5 | 2323.0 | 2807.5 | 3768.7 | 5271.7 | 6581.9 | 5392.8 | 3876.5 | 3126.0 | 2418.4 | 2575.7 |
| 77.5° | 687.6 | 644.7 | 1035.6 | 1823.3 | 3170.8 | 4621.3 | 3292.9 | 1863.4 | 1228.3 | 728.6 | 809.6 |
| 80° | 210.8 | 204.1 | 276.6 | 549.3 | 1346.5 | 2213.4 | 1294.1 | 556.0 | 351.9 | 222.2 | 234.6 |
| 82.5° | 124.9 | 114.4 | 137.3 | 200.3 | 343.3 | 695.2 | 333.8 | 208.8 | 167.8 | 112.5 | 122.1 |
| 85° | 71.5 | 66.8 | 81.1 | 97.3 | 115.4 | 147.8 | 96.3 | 99.2 | 89.6 | 60.1 | 62.9 |
| 87.5° | 29.6 | 26.7 | 31.5 | 30.5 | 26.7 | 34.3 | 25.7 | 30.5 | 36.2 | 23.8 | 21.9 |
| 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)