

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: P882712

Luminaire Tested: **NAV-SB2D-722-U-5WQ**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P882712
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-SB2D-722-U-5WQ
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 70 CRI, 2200K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE V WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16717 lumens
Efficiency: N/A
Efficacy: 113.3 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type V - Short
BUG Rating: B4 - U0 - G2

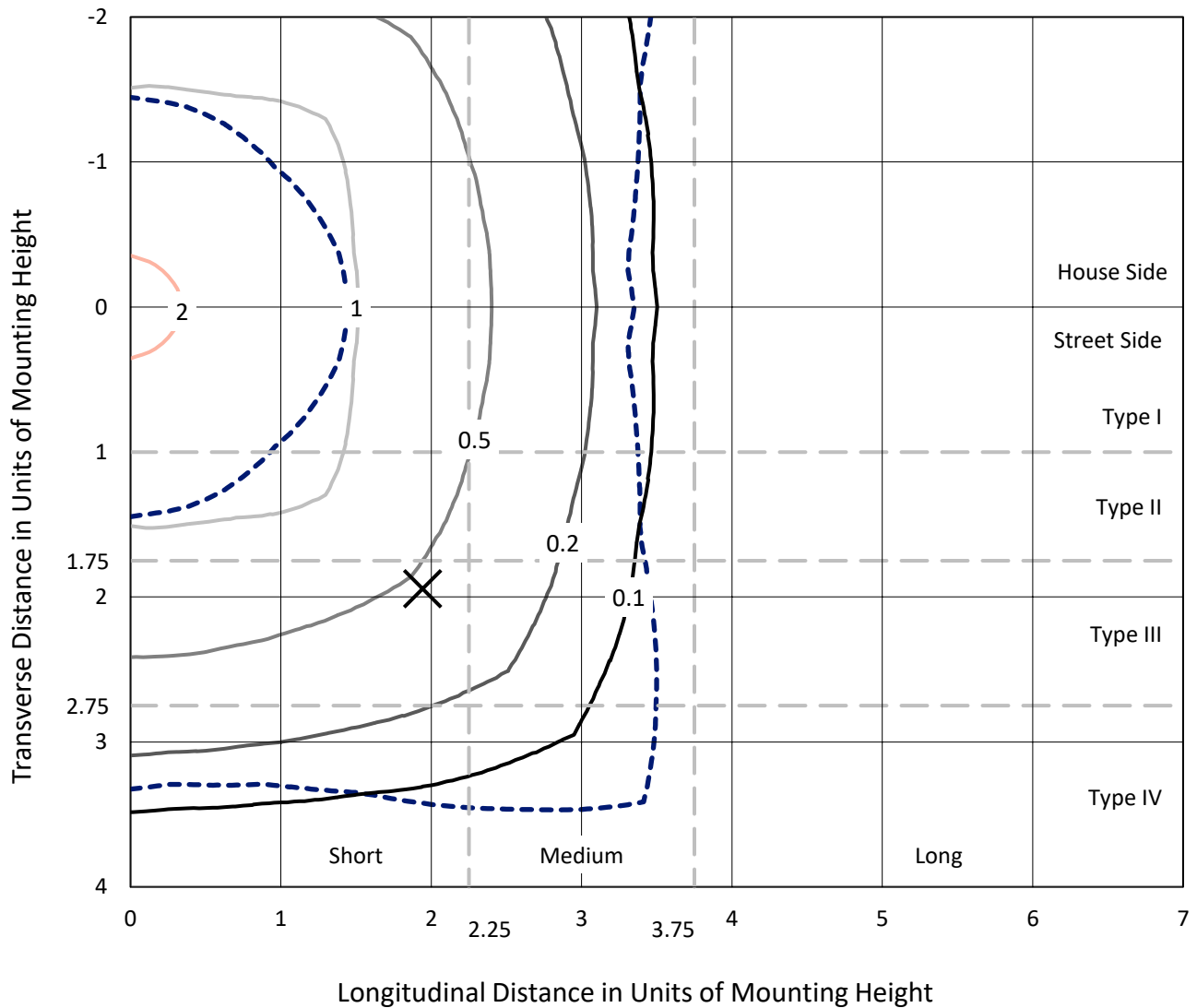
Input Watts (W): 147.6
Input Voltage (V): 120.0
Input Current (Ain): 1.234
Voltage Rise (V): NR
Power Factor: 0.999
Total Harmonic Distortion (THDi): 3.108
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

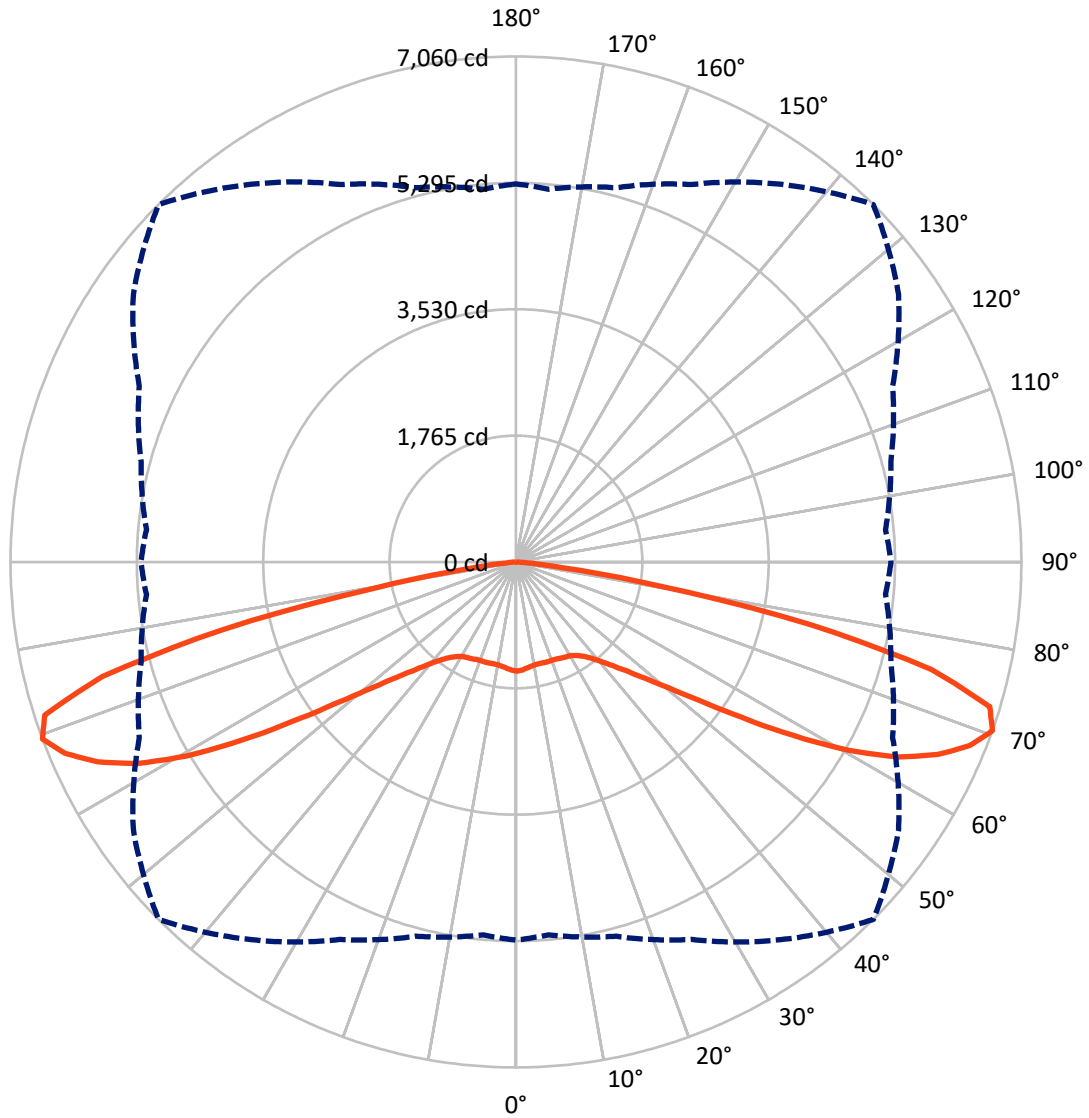
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.4 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 | 8358.5 | 0.0 | 8358.5 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Street Side | Lumens | 8358.5 | 0.0 | 8358.5 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Total | Lumens | 16717.0 | 0.0 | 16717.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 141.9 | 0.8 |
| 10°-20° | 416.5 | 2.5 |
| 20°-30° | 693.1 | 4.1 |
| 30°-40° | 1048.3 | 6.3 |
| 40°-50° | 1741.9 | 10.4 |
| 50°-60° | 3287.0 | 19.7 |
| 60°-70° | 5550.2 | 33.2 |
| 70°-80° | 3647.0 | 21.8 |
| 80°-90° | 191.1 | 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° | 16717.0 | 100.0 |
| 0°-180° | 16717.0 | 100.0 |

Coefficient of Utilization



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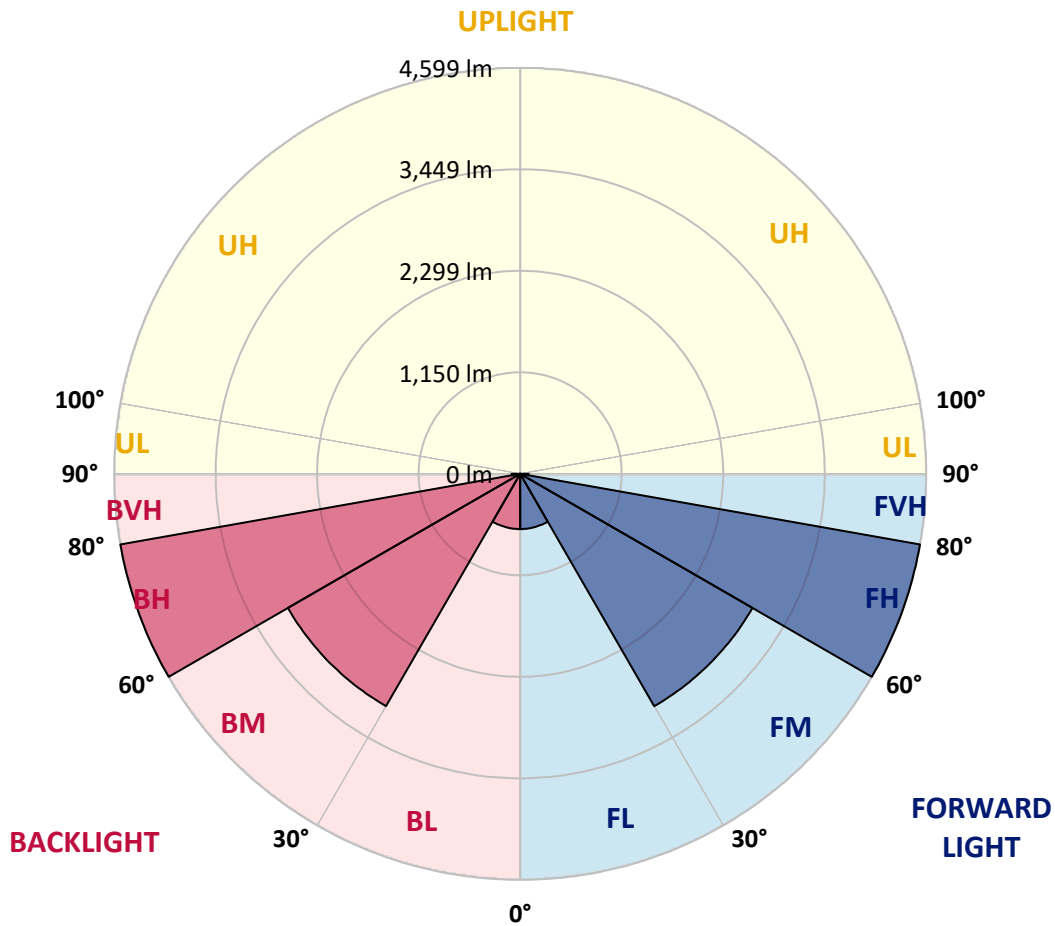
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 625.8 | 3.7 | | | |
| FM (30°-60°) | 3038.6 | 18.2 | | | |
| FH (60°-80°) | 4598.6 | 27.5 | | | G2/5000 |
| FVH (80°-90°) | 95.5 | 0.6 | | | G1/100 |
| BL (0°-30°) | 625.8 | 3.7 | B2/1000 | | |
| BM (30°-60°) | 3038.6 | 18.2 | B3/5000 | | |
| BH (60°-80°) | 4598.6 | 27.5 | B4/5000 | | G2/5000 |
| BVH (80°-90°) | 95.5 | 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° | 1524.9 | 1524.9 | 1524.9 | 1524.9 | 1524.9 | 1524.9 | 1524.9 | 1524.9 | 1524.9 | 1524.9 | 1524.9 |
| 2.5° | 1515.4 | 1519.7 | 1518.0 | 1514.5 | 1514.5 | 1511.9 | 1514.5 | 1516.2 | 1518.8 | 1520.6 | 1519.7 |
| 5° | 1495.4 | 1498.9 | 1498.0 | 1495.4 | 1496.3 | 1493.6 | 1495.4 | 1498.0 | 1499.7 | 1500.6 | 1500.6 |
| 7.5° | 1478.0 | 1481.5 | 1479.7 | 1475.4 | 1475.4 | 1472.8 | 1473.7 | 1476.3 | 1478.9 | 1479.7 | 1479.7 |
| 10° | 1473.7 | 1477.1 | 1471.9 | 1465.0 | 1462.4 | 1458.9 | 1459.8 | 1462.4 | 1467.6 | 1470.2 | 1470.2 |
| 12.5° | 1475.4 | 1478.0 | 1472.8 | 1462.4 | 1459.8 | 1456.3 | 1456.3 | 1458.9 | 1465.8 | 1469.3 | 1470.2 |
| 15° | 1480.6 | 1483.2 | 1475.4 | 1464.1 | 1461.5 | 1458.9 | 1458.0 | 1461.5 | 1469.3 | 1475.4 | 1476.3 |
| 17.5° | 1490.2 | 1492.8 | 1480.6 | 1465.0 | 1461.5 | 1462.4 | 1461.5 | 1464.1 | 1476.3 | 1487.6 | 1487.6 |
| 20° | 1498.9 | 1500.6 | 1484.1 | 1465.0 | 1461.5 | 1462.4 | 1461.5 | 1466.7 | 1482.4 | 1498.0 | 1498.9 |
| 22.5° | 1501.5 | 1503.2 | 1487.6 | 1471.1 | 1468.4 | 1469.3 | 1468.4 | 1473.7 | 1488.4 | 1504.1 | 1504.1 |
| 25° | 1502.3 | 1504.9 | 1492.8 | 1479.7 | 1484.1 | 1485.8 | 1484.1 | 1485.0 | 1496.3 | 1510.2 | 1509.3 |
| 27.5° | 1515.4 | 1518.8 | 1507.5 | 1496.3 | 1498.9 | 1498.0 | 1500.6 | 1503.2 | 1511.9 | 1525.8 | 1522.3 |
| 30° | 1542.3 | 1544.9 | 1535.4 | 1524.1 | 1522.3 | 1516.2 | 1524.1 | 1532.7 | 1542.3 | 1554.5 | 1551.9 |
| 32.5° | 1586.6 | 1591.8 | 1579.7 | 1567.5 | 1559.7 | 1556.2 | 1562.3 | 1577.1 | 1590.1 | 1603.1 | 1597.9 |
| 35° | 1660.5 | 1664.0 | 1652.7 | 1630.1 | 1616.2 | 1616.2 | 1621.4 | 1640.5 | 1661.3 | 1677.9 | 1671.8 |
| 37.5° | 1764.7 | 1769.1 | 1749.1 | 1722.2 | 1701.3 | 1701.3 | 1708.3 | 1728.3 | 1759.5 | 1783.0 | 1774.3 |
| 40° | 1891.6 | 1897.7 | 1872.5 | 1844.7 | 1824.7 | 1821.2 | 1829.9 | 1852.5 | 1882.0 | 1911.6 | 1902.0 |
| 42.5° | 2044.5 | 2051.5 | 2018.5 | 1994.1 | 1978.5 | 1978.5 | 1982.8 | 2003.7 | 2030.6 | 2067.1 | 2064.5 |
| 45° | 2240.0 | 2252.2 | 2207.0 | 2182.7 | 2167.9 | 2171.4 | 2174.0 | 2192.2 | 2216.6 | 2258.3 | 2256.5 |
| 47.5° | 2472.9 | 2485.1 | 2437.3 | 2412.1 | 2409.5 | 2426.0 | 2415.6 | 2428.6 | 2441.6 | 2489.4 | 2475.5 |
| 50° | 2737.0 | 2757.9 | 2724.9 | 2723.1 | 2728.4 | 2758.8 | 2734.4 | 2741.4 | 2726.6 | 2757.0 | 2738.8 |
| 52.5° | 3060.3 | 3090.7 | 3084.6 | 3095.0 | 3153.3 | 3215.8 | 3160.2 | 3135.9 | 3080.3 | 3089.8 | 3057.7 |
| 55° | 3452.2 | 3498.2 | 3506.9 | 3569.5 | 3701.5 | 3829.3 | 3711.1 | 3612.9 | 3494.7 | 3473.0 | 3439.1 |
| 57.5° | 3897.9 | 3934.4 | 3976.1 | 4103.8 | 4350.6 | 4577.4 | 4350.6 | 4133.4 | 3947.4 | 3903.1 | 3871.8 |
| 60° | 4377.5 | 4422.7 | 4462.7 | 4651.2 | 5017.9 | 5336.8 | 5011.0 | 4666.0 | 4420.1 | 4360.2 | 4308.0 |
| 62.5° | 4892.8 | 4951.0 | 4978.8 | 5188.2 | 5615.7 | 5996.3 | 5621.8 | 5203.9 | 4931.0 | 4866.7 | 4814.6 |
| 65° | 5387.2 | 5435.0 | 5466.3 | 5689.6 | 6098.0 | 6479.4 | 6125.8 | 5713.9 | 5433.3 | 5349.0 | 5307.3 |
| 67.5° | 5617.5 | 5643.5 | 5720.0 | 5972.8 | 6403.8 | 6839.1 | 6476.8 | 5999.8 | 5686.1 | 5538.4 | 5540.1 |
| 70° | 5280.3 | 5227.3 | 5411.5 | 5816.4 | 6440.3 | 7059.8 | 6523.7 | 5804.3 | 5420.2 | 5180.4 | 5237.8 |
| 72.5° | 4080.4 | 3989.1 | 4308.9 | 5001.4 | 6023.2 | 6919.1 | 6065.0 | 5040.5 | 4507.9 | 4021.3 | 4142.1 |
| 75° | 2220.1 | 2116.7 | 2558.1 | 3433.9 | 4803.3 | 5997.2 | 4913.7 | 3532.1 | 2848.3 | 2203.5 | 2346.9 |
| 77.5° | 626.5 | 587.4 | 943.6 | 1661.3 | 2889.1 | 4210.7 | 3000.3 | 1697.8 | 1119.1 | 663.8 | 737.7 |
| 80° | 192.0 | 185.9 | 252.0 | 500.5 | 1226.9 | 2016.7 | 1179.1 | 506.6 | 320.6 | 202.5 | 213.8 |
| 82.5° | 113.8 | 104.3 | 125.1 | 182.5 | 312.8 | 633.4 | 304.1 | 190.3 | 152.9 | 102.5 | 111.2 |
| 85° | 65.2 | 60.8 | 73.9 | 88.6 | 105.1 | 134.7 | 87.8 | 90.4 | 81.7 | 54.7 | 57.3 |
| 87.5° | 26.9 | 24.3 | 28.7 | 27.8 | 24.3 | 31.3 | 23.5 | 27.8 | 33.0 | 21.7 | 20.0 |
| 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)