

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: P884102

Luminaire Tested: **NAV-SB4D-735-U-5WQ**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P884102
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-SB4D-735-U-5WQ
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 3500K, 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: 41714 lumens
Efficiency: N/A
Efficacy: 142.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type V - Short
BUG Rating: B5 - U0 - G4

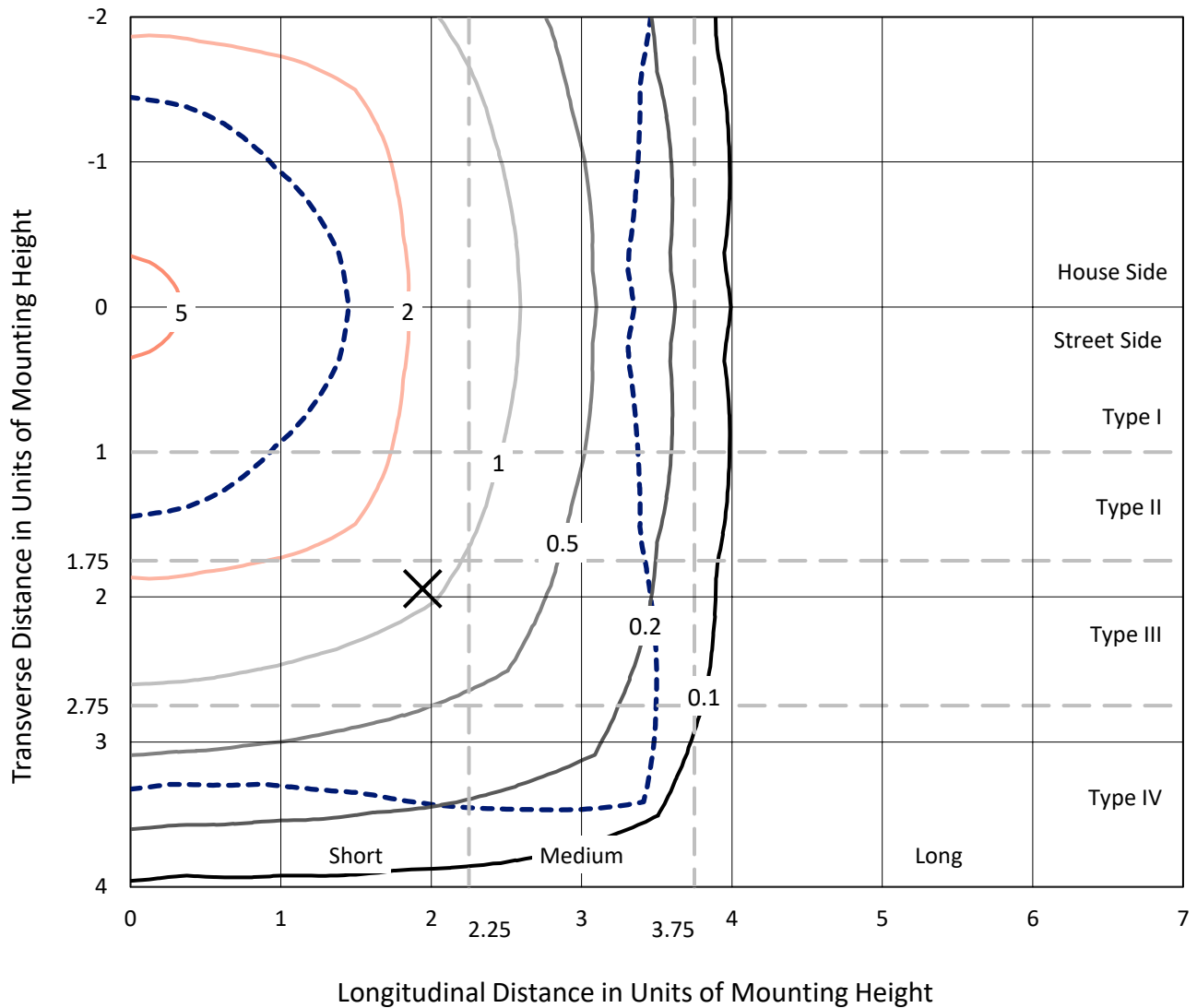
Input Watts (W): 293.6
Input Voltage (V): 120.0
Input Current (Ain): 2.469
Voltage Rise (V): NR
Power Factor: 0.999
Total Harmonic Distortion (THDi): 3.108
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

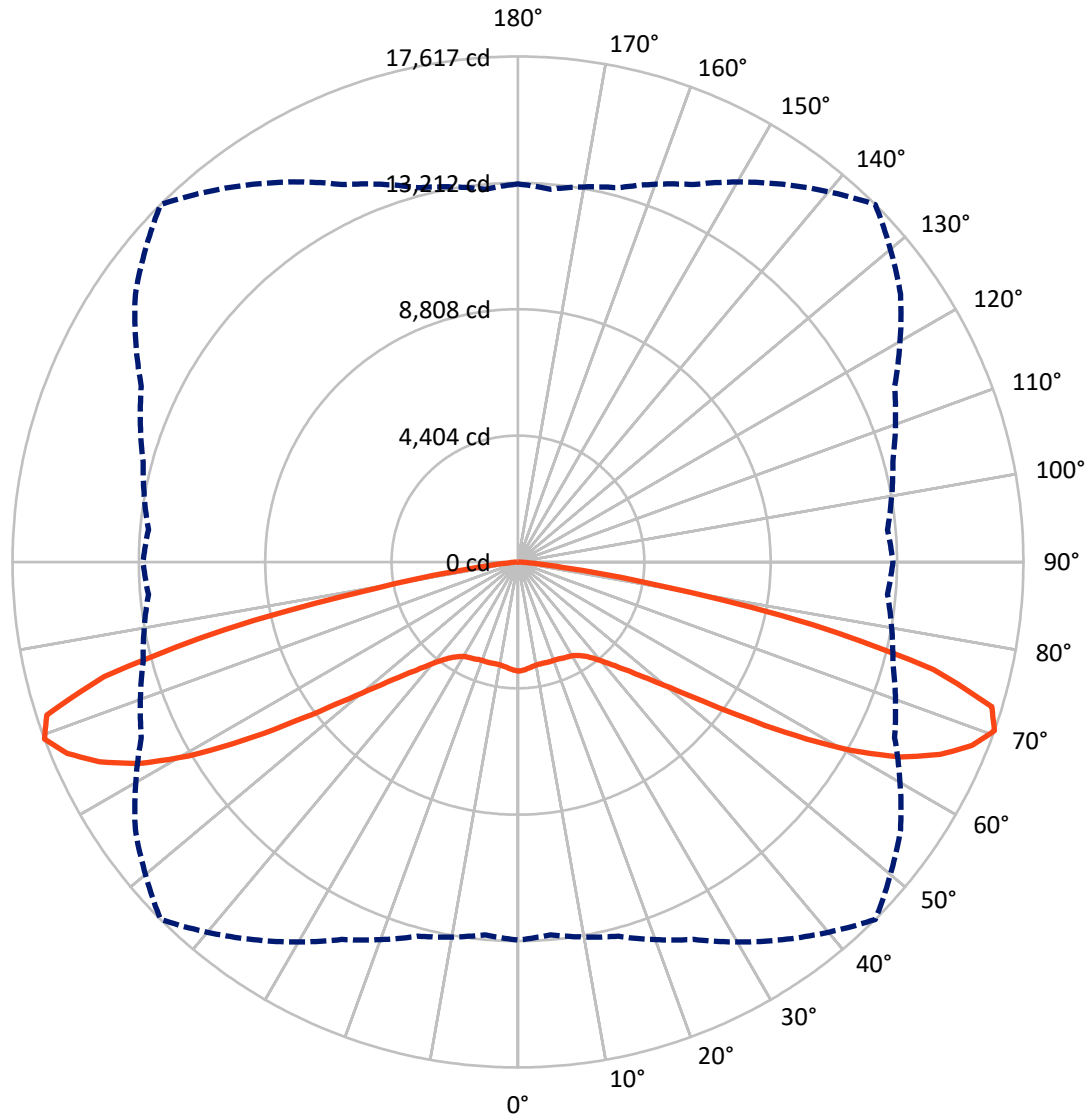
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.1 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 | 20857.0 | 0.0 | 20857.0 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Street Side | Lumens | 20857.0 | 0.0 | 20857.0 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Total | Lumens | 41714.0 | 0.0 | 41714.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 354.0 | 0.8 |
| 10°-20° | 1039.3 | 2.5 |
| 20°-30° | 1729.6 | 4.1 |
| 30°-40° | 2615.7 | 6.3 |
| 40°-50° | 4346.7 | 10.4 |
| 50°-60° | 8202.0 | 19.7 |
| 60°-70° | 13849.4 | 33.2 |
| 70°-80° | 9100.5 | 21.8 |
| 80°-90° | 476.8 | 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° | 41714.0 | 100.0 |
| 0°-180° | 41714.0 | 100.0 |



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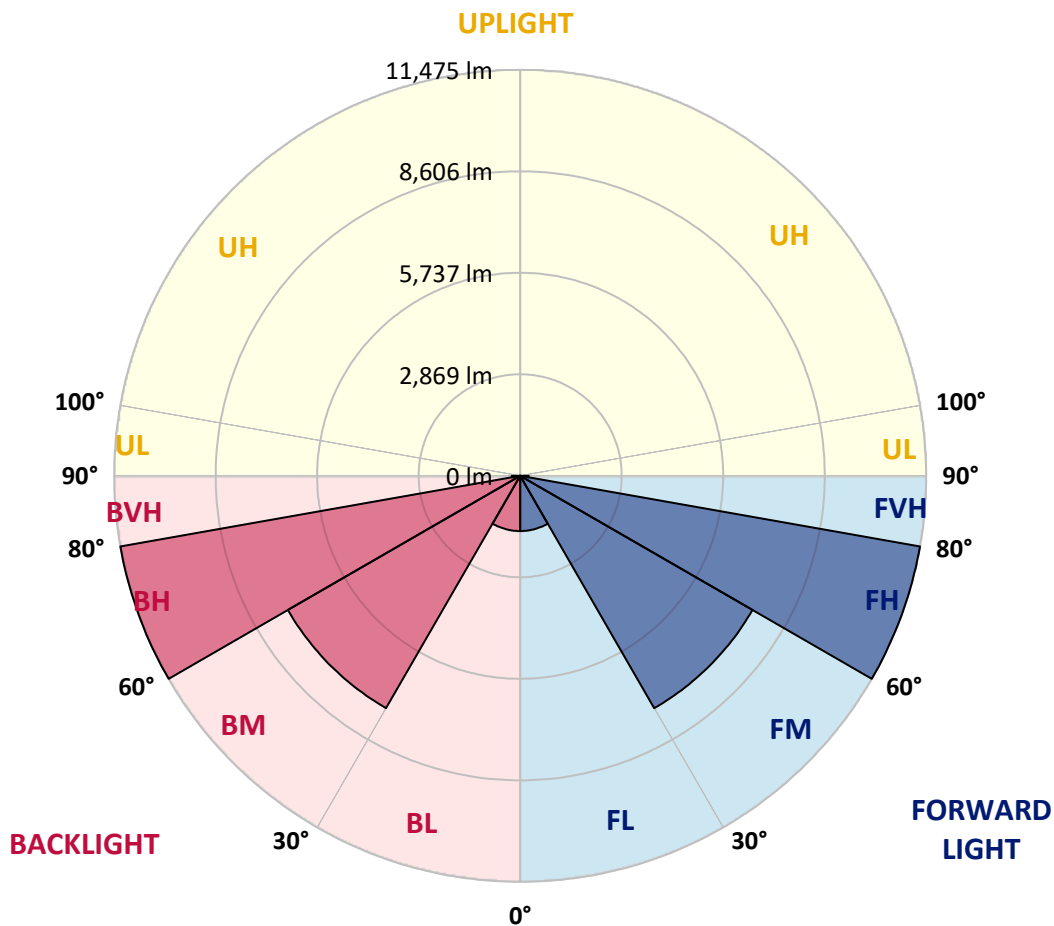
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|---------|-----------|-------------------------|------|----------|
| | | | B | U | G |
| FL (0°-30°) | 1561.5 | 3.7 | | | |
| FM (30°-60°) | 7582.2 | 18.2 | | | |
| FH (60°-80°) | 11475.0 | 27.5 | | | G4/12000 |
| FVH (80°-90°) | 238.4 | 0.6 | | | G3/500 |
| BL (0°-30°) | 1561.5 | 3.7 | B3/2500 | | |
| BM (30°-60°) | 7582.2 | 18.2 | B4/8500 | | |
| BH (60°-80°) | 11475.0 | 27.5 | B5 | | G4/12000 |
| BVH (80°-90°) | 238.4 | 0.6 | | | G3/500 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B5-U0-G4

Type V Short



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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 85° | 90° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 3805.2 | 3805.2 | 3805.2 | 3805.2 | 3805.2 | 3805.2 | 3805.2 | 3805.2 | 3805.2 | 3805.2 | 3805.2 |
| 2.5° | 3781.3 | 3792.1 | 3787.8 | 3779.1 | 3779.1 | 3772.6 | 3779.1 | 3783.5 | 3790.0 | 3794.3 | 3792.1 |
| 5° | 3731.4 | 3740.1 | 3737.9 | 3731.4 | 3733.6 | 3727.1 | 3731.4 | 3737.9 | 3742.3 | 3744.4 | 3744.4 |
| 7.5° | 3688.1 | 3696.7 | 3692.4 | 3681.6 | 3681.6 | 3675.1 | 3677.2 | 3683.7 | 3690.2 | 3692.4 | 3692.4 |
| 10° | 3677.2 | 3685.9 | 3672.9 | 3655.6 | 3649.0 | 3640.4 | 3642.5 | 3649.0 | 3662.1 | 3668.6 | 3668.6 |
| 12.5° | 3681.6 | 3688.1 | 3675.1 | 3649.0 | 3642.5 | 3633.9 | 3633.9 | 3640.4 | 3657.7 | 3666.4 | 3668.6 |
| 15° | 3694.6 | 3701.1 | 3681.6 | 3653.4 | 3646.9 | 3640.4 | 3638.2 | 3646.9 | 3666.4 | 3681.6 | 3683.7 |
| 17.5° | 3718.4 | 3724.9 | 3694.6 | 3655.6 | 3646.9 | 3649.0 | 3646.9 | 3653.4 | 3683.7 | 3711.9 | 3711.9 |
| 20° | 3740.1 | 3744.4 | 3703.3 | 3655.6 | 3646.9 | 3649.0 | 3646.9 | 3659.9 | 3698.9 | 3737.9 | 3740.1 |
| 22.5° | 3746.6 | 3751.0 | 3711.9 | 3670.7 | 3664.2 | 3666.4 | 3664.2 | 3677.2 | 3714.1 | 3753.1 | 3753.1 |
| 25° | 3748.8 | 3755.3 | 3724.9 | 3692.4 | 3703.3 | 3707.6 | 3703.3 | 3705.4 | 3733.6 | 3768.3 | 3766.1 |
| 27.5° | 3781.3 | 3790.0 | 3761.8 | 3733.6 | 3740.1 | 3737.9 | 3744.4 | 3751.0 | 3772.6 | 3807.3 | 3798.7 |
| 30° | 3848.5 | 3855.0 | 3831.2 | 3803.0 | 3798.7 | 3783.5 | 3803.0 | 3824.7 | 3848.5 | 3878.9 | 3872.4 |
| 32.5° | 3959.1 | 3972.1 | 3941.8 | 3911.4 | 3891.9 | 3883.2 | 3898.4 | 3935.2 | 3967.8 | 4000.3 | 3987.3 |
| 35° | 4143.4 | 4152.1 | 4123.9 | 4067.5 | 4032.8 | 4032.8 | 4045.8 | 4093.5 | 4145.6 | 4186.8 | 4171.6 |
| 37.5° | 4403.6 | 4414.4 | 4364.5 | 4297.3 | 4245.3 | 4245.3 | 4262.6 | 4312.5 | 4390.6 | 4449.1 | 4427.4 |
| 40° | 4720.1 | 4735.3 | 4672.4 | 4603.0 | 4553.2 | 4544.5 | 4566.2 | 4622.6 | 4696.3 | 4770.0 | 4746.1 |
| 42.5° | 5101.7 | 5119.1 | 5036.7 | 4976.0 | 4936.9 | 4936.9 | 4947.8 | 4999.8 | 5067.0 | 5158.1 | 5151.6 |
| 45° | 5589.6 | 5619.9 | 5507.2 | 5446.5 | 5409.6 | 5418.3 | 5424.8 | 5470.3 | 5531.0 | 5635.1 | 5630.8 |
| 47.5° | 6170.6 | 6201.0 | 6081.7 | 6018.9 | 6012.4 | 6053.6 | 6027.5 | 6060.1 | 6092.6 | 6211.8 | 6177.1 |
| 50° | 6829.8 | 6881.8 | 6799.4 | 6795.1 | 6808.1 | 6884.0 | 6823.3 | 6840.6 | 6803.8 | 6879.6 | 6834.1 |
| 52.5° | 7636.3 | 7712.2 | 7697.0 | 7723.1 | 7868.3 | 8024.4 | 7885.7 | 7825.0 | 7686.2 | 7710.0 | 7629.8 |
| 55° | 8614.2 | 8729.1 | 8750.8 | 8906.9 | 9236.4 | 9555.2 | 9260.3 | 9015.3 | 8720.4 | 8666.2 | 8581.7 |
| 57.5° | 9726.5 | 9817.5 | 9921.6 | 10240.3 | 10856.1 | 11422.0 | 10856.1 | 10314.0 | 9850.0 | 9739.5 | 9661.4 |
| 60° | 10923.3 | 11036.0 | 11135.8 | 11606.3 | 12521.2 | 13317.0 | 12503.9 | 11643.1 | 11029.5 | 10879.9 | 10749.8 |
| 62.5° | 12209.0 | 12354.3 | 12423.7 | 12946.2 | 14013.0 | 14962.6 | 14028.1 | 12985.2 | 12304.4 | 12144.0 | 12013.9 |
| 65° | 13442.7 | 13562.0 | 13640.0 | 14197.2 | 15216.3 | 16168.1 | 15285.7 | 14258.0 | 13557.6 | 13347.3 | 13243.2 |
| 67.5° | 14017.3 | 14082.3 | 14273.1 | 14904.1 | 15979.5 | 17065.7 | 16161.6 | 14971.3 | 14188.6 | 13820.0 | 13824.3 |
| 70° | 13176.0 | 13043.8 | 13503.4 | 14513.8 | 16070.6 | 17616.5 | 16278.7 | 14483.4 | 13525.1 | 12926.7 | 13069.8 |
| 72.5° | 10181.8 | 9954.1 | 10752.0 | 12480.0 | 15029.8 | 17265.2 | 15133.9 | 12577.6 | 11248.5 | 10034.3 | 10335.7 |
| 75° | 5539.7 | 5281.7 | 6383.1 | 8568.6 | 11985.7 | 14964.8 | 12261.1 | 8813.7 | 7107.3 | 5498.5 | 5856.3 |
| 77.5° | 1563.3 | 1465.7 | 2354.6 | 4145.6 | 7209.2 | 10507.0 | 7486.7 | 4236.6 | 2792.6 | 1656.5 | 1840.8 |
| 80° | 479.2 | 464.0 | 628.8 | 1248.9 | 3061.5 | 5032.3 | 2942.2 | 1264.0 | 800.1 | 505.2 | 533.4 |
| 82.5° | 284.0 | 260.2 | 312.2 | 455.3 | 780.5 | 1580.6 | 758.9 | 474.8 | 381.6 | 255.8 | 277.5 |
| 85° | 162.6 | 151.8 | 184.3 | 221.2 | 262.3 | 336.1 | 219.0 | 225.5 | 203.8 | 136.6 | 143.1 |
| 87.5° | 67.2 | 60.7 | 71.5 | 69.4 | 60.7 | 78.1 | 58.5 | 69.4 | 82.4 | 54.2 | 49.9 |
| 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)