

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: P883412

Luminaire Tested: **NAV-SB3D-730-U-5WQ**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P883412
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-SB3D-730-U-5WQ
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(3) 70 CRI, 3000K, 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: 30392 lumens
Efficiency: N/A
Efficacy: 139.3 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1.5' x H: 0')
IES Classification: Type V - Short
BUG Rating: B5 - U0 - G4

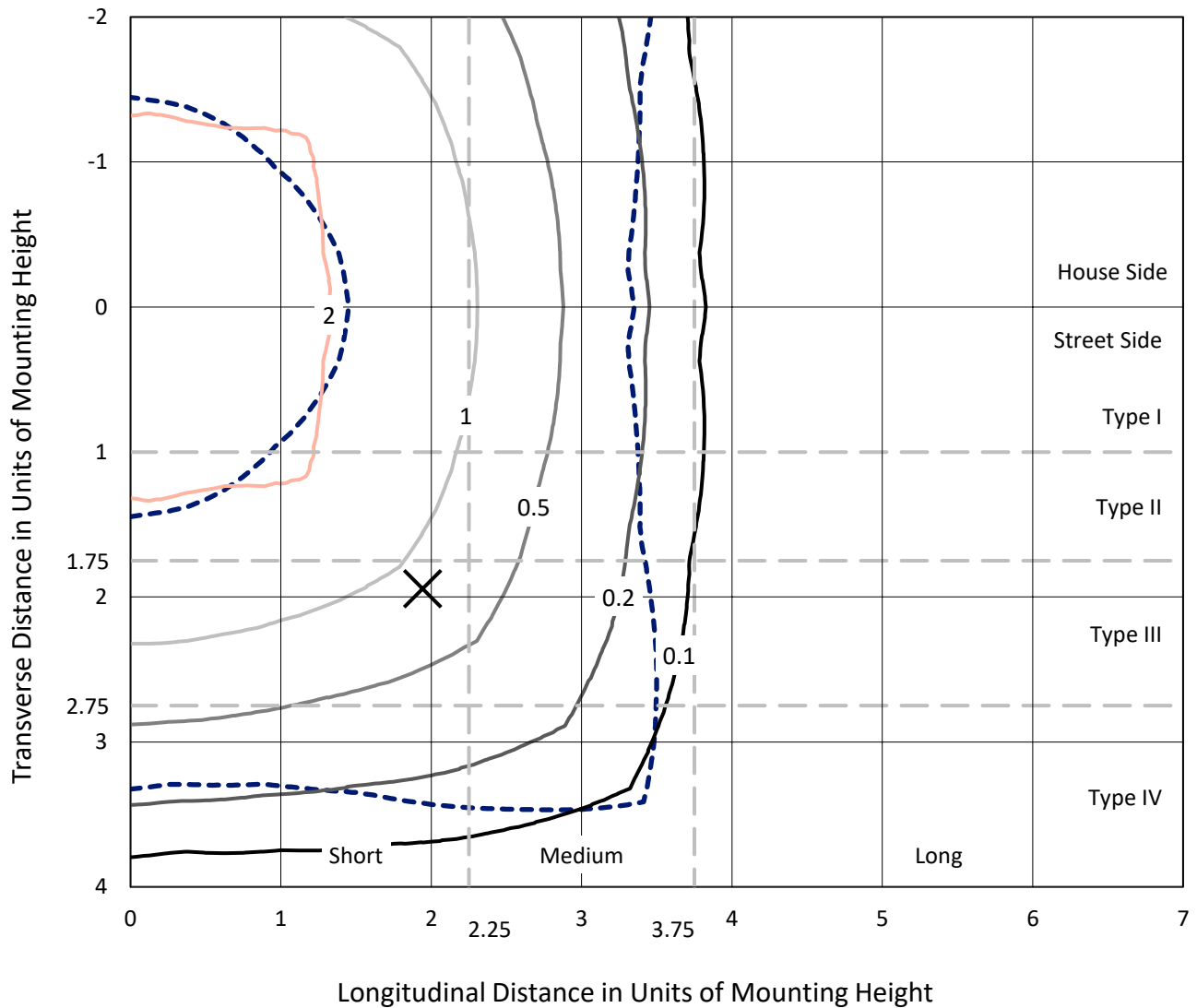
Input Watts (W): 218.1
Input Voltage (V): 120.0
Input Current (Ain): 1.84
Voltage Rise (V): NR
Power Factor: 0.998
Total Harmonic Distortion (THDi): 2.542
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

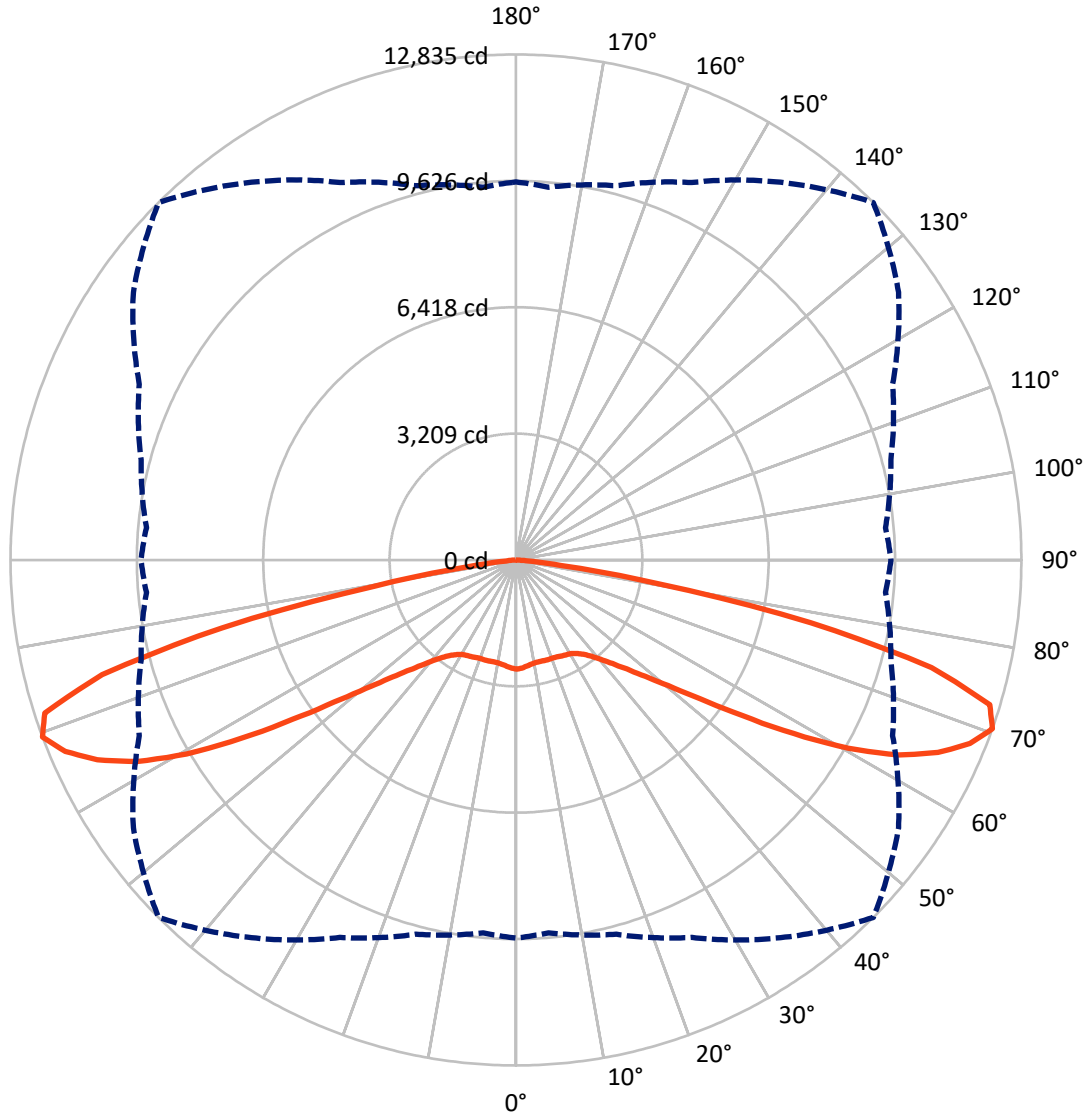
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.4 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 | 15196.0 | 0.0 | 15196.0 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Street Side | Lumens | 15196.0 | 0.0 | 15196.0 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Total | Lumens | 30392.0 | 0.0 | 30392.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 257.9 | 0.8 |
| 10°-20° | 757.2 | 2.5 |
| 20°-30° | 1260.2 | 4.1 |
| 30°-40° | 1905.7 | 6.3 |
| 40°-50° | 3166.9 | 10.4 |
| 50°-60° | 5975.8 | 19.7 |
| 60°-70° | 10090.4 | 33.2 |
| 70°-80° | 6630.4 | 21.8 |
| 80°-90° | 347.4 | 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° | 30392.0 | 100.0 |
| 0°-180° | 30392.0 | 100.0 |



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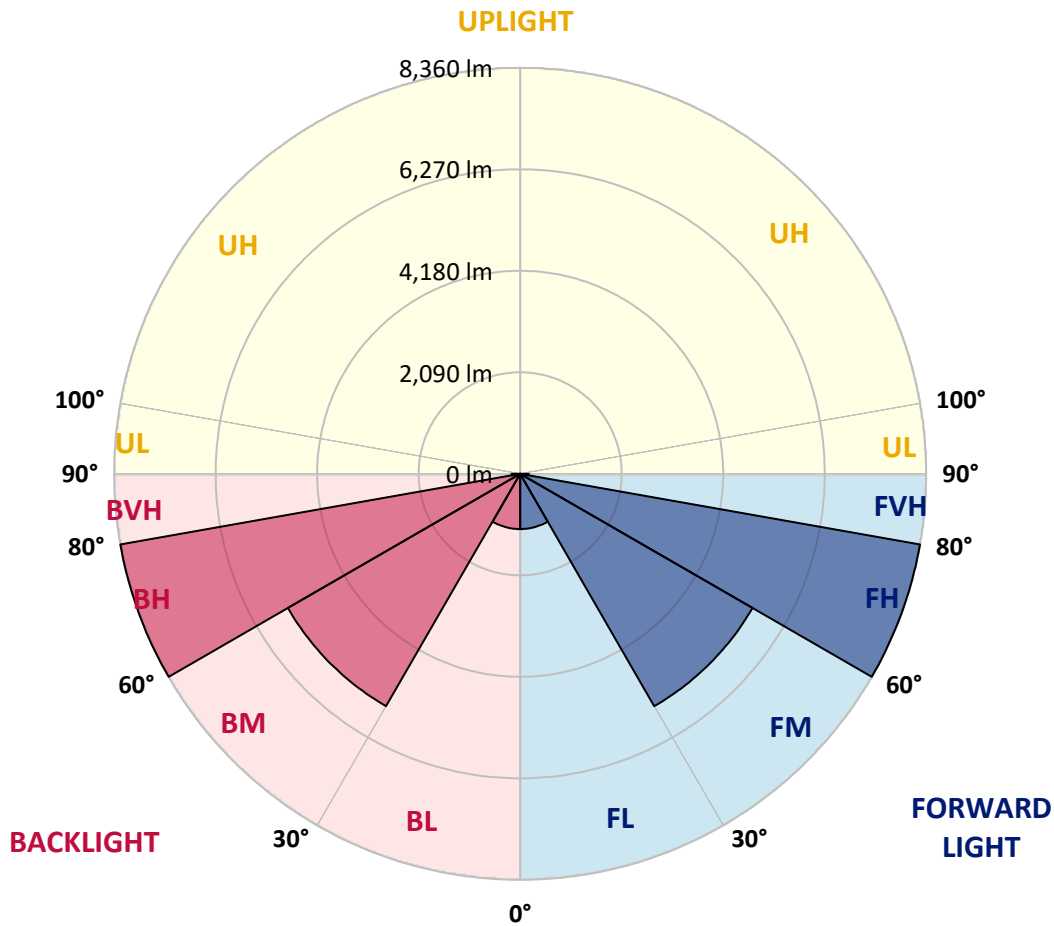
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|----------|
| | | | B | U | G |
| FL (0°-30°) | 1137.6 | 3.7 | | | |
| FM (30°-60°) | 5524.2 | 18.2 | | | |
| FH (60°-80°) | 8360.4 | 27.5 | | | G4/12000 |
| FVH (80°-90°) | 173.7 | 0.6 | | | G2/225 |
| BL (0°-30°) | 1137.6 | 3.7 | B3/2500 | | |
| BM (30°-60°) | 5524.2 | 18.2 | B4/8500 | | |
| BH (60°-80°) | 8360.4 | 27.5 | B5 | | G4/12000 |
| BVH (80°-90°) | 173.7 | 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-G4

Type V Short



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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 85° | 90° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 2772.4 | 2772.4 | 2772.4 | 2772.4 | 2772.4 | 2772.4 | 2772.4 | 2772.4 | 2772.4 | 2772.4 | 2772.4 |
| 2.5° | 2755.0 | 2762.9 | 2759.7 | 2753.4 | 2753.4 | 2748.7 | 2753.4 | 2756.6 | 2761.3 | 2764.5 | 2762.9 |
| 5° | 2718.7 | 2725.0 | 2723.4 | 2718.7 | 2720.2 | 2715.5 | 2718.7 | 2723.4 | 2726.6 | 2728.1 | 2728.1 |
| 7.5° | 2687.1 | 2693.4 | 2690.2 | 2682.3 | 2682.3 | 2677.6 | 2679.2 | 2683.9 | 2688.6 | 2690.2 | 2690.2 |
| 10° | 2679.2 | 2685.5 | 2676.0 | 2663.4 | 2658.6 | 2652.3 | 2653.9 | 2658.6 | 2668.1 | 2672.8 | 2672.8 |
| 12.5° | 2682.3 | 2687.1 | 2677.6 | 2658.6 | 2653.9 | 2647.6 | 2647.6 | 2652.3 | 2664.9 | 2671.3 | 2672.8 |
| 15° | 2691.8 | 2696.5 | 2682.3 | 2661.8 | 2657.0 | 2652.3 | 2650.7 | 2657.0 | 2671.3 | 2682.3 | 2683.9 |
| 17.5° | 2709.2 | 2713.9 | 2691.8 | 2663.4 | 2657.0 | 2658.6 | 2657.0 | 2661.8 | 2683.9 | 2704.4 | 2704.4 |
| 20° | 2725.0 | 2728.1 | 2698.1 | 2663.4 | 2657.0 | 2658.6 | 2657.0 | 2666.5 | 2695.0 | 2723.4 | 2725.0 |
| 22.5° | 2729.7 | 2732.9 | 2704.4 | 2674.4 | 2669.7 | 2671.3 | 2669.7 | 2679.2 | 2706.0 | 2734.4 | 2734.4 |
| 25° | 2731.3 | 2736.0 | 2713.9 | 2690.2 | 2698.1 | 2701.3 | 2698.1 | 2699.7 | 2720.2 | 2745.5 | 2743.9 |
| 27.5° | 2755.0 | 2761.3 | 2740.8 | 2720.2 | 2725.0 | 2723.4 | 2728.1 | 2732.9 | 2748.7 | 2773.9 | 2767.6 |
| 30° | 2804.0 | 2808.7 | 2791.3 | 2770.8 | 2767.6 | 2756.6 | 2770.8 | 2786.6 | 2804.0 | 2826.1 | 2821.3 |
| 32.5° | 2884.5 | 2894.0 | 2871.9 | 2849.8 | 2835.6 | 2829.2 | 2840.3 | 2867.1 | 2890.8 | 2914.5 | 2905.1 |
| 35° | 3018.8 | 3025.1 | 3004.6 | 2963.5 | 2938.2 | 2938.2 | 2947.7 | 2982.5 | 3020.4 | 3050.4 | 3039.3 |
| 37.5° | 3208.4 | 3216.3 | 3179.9 | 3131.0 | 3093.0 | 3093.0 | 3105.7 | 3142.0 | 3198.9 | 3241.5 | 3225.7 |
| 40° | 3439.0 | 3450.1 | 3404.2 | 3353.7 | 3317.4 | 3311.0 | 3326.8 | 3367.9 | 3421.6 | 3475.3 | 3457.9 |
| 42.5° | 3717.0 | 3729.7 | 3669.6 | 3625.4 | 3597.0 | 3597.0 | 3604.9 | 3642.8 | 3691.7 | 3758.1 | 3753.4 |
| 45° | 4072.5 | 4094.6 | 4012.4 | 3968.2 | 3941.3 | 3947.7 | 3952.4 | 3985.6 | 4029.8 | 4105.6 | 4102.5 |
| 47.5° | 4495.8 | 4517.9 | 4431.0 | 4385.2 | 4380.5 | 4410.5 | 4391.5 | 4415.2 | 4438.9 | 4525.8 | 4500.5 |
| 50° | 4976.0 | 5013.9 | 4953.9 | 4950.8 | 4960.2 | 5015.5 | 4971.3 | 4983.9 | 4957.1 | 5012.4 | 4979.2 |
| 52.5° | 5563.7 | 5619.0 | 5607.9 | 5626.9 | 5732.7 | 5846.4 | 5745.3 | 5701.1 | 5600.0 | 5617.4 | 5558.9 |
| 55° | 6276.1 | 6359.8 | 6375.6 | 6489.4 | 6729.5 | 6961.7 | 6746.9 | 6568.4 | 6353.5 | 6314.0 | 6252.4 |
| 57.5° | 7086.5 | 7152.9 | 7228.7 | 7460.9 | 7909.5 | 8321.8 | 7909.5 | 7514.6 | 7176.5 | 7096.0 | 7039.1 |
| 60° | 7958.5 | 8040.6 | 8113.3 | 8456.1 | 9122.7 | 9702.5 | 9110.1 | 8483.0 | 8035.9 | 7926.9 | 7832.1 |
| 62.5° | 8895.3 | 9001.1 | 9051.6 | 9432.4 | 10209.6 | 10901.5 | 10220.6 | 9460.8 | 8964.8 | 8847.9 | 8753.1 |
| 65° | 9794.1 | 9881.0 | 9937.9 | 10343.8 | 11086.3 | 11779.8 | 11136.8 | 10388.1 | 9877.8 | 9724.6 | 9648.8 |
| 67.5° | 10212.7 | 10260.1 | 10399.1 | 10858.8 | 11642.3 | 12433.8 | 11775.0 | 10907.8 | 10337.5 | 10069.0 | 10072.1 |
| 70° | 9599.8 | 9503.4 | 9838.3 | 10574.5 | 11708.7 | 12835.0 | 11860.3 | 10552.4 | 9854.1 | 9418.1 | 9522.4 |
| 72.5° | 7418.2 | 7252.4 | 7833.7 | 9092.7 | 10950.4 | 12579.1 | 11026.3 | 9163.8 | 8195.5 | 7310.8 | 7530.4 |
| 75° | 4036.1 | 3848.1 | 4650.6 | 6242.9 | 8732.5 | 10903.0 | 8933.2 | 6421.5 | 5178.2 | 4006.1 | 4266.8 |
| 77.5° | 1139.0 | 1067.9 | 1715.5 | 3020.4 | 5252.5 | 7655.2 | 5454.7 | 3086.7 | 2034.6 | 1206.9 | 1341.2 |
| 80° | 349.1 | 338.1 | 458.1 | 909.9 | 2230.5 | 3666.5 | 2143.6 | 921.0 | 582.9 | 368.1 | 388.6 |
| 82.5° | 206.9 | 189.6 | 227.5 | 331.7 | 568.7 | 1151.6 | 552.9 | 346.0 | 278.0 | 186.4 | 202.2 |
| 85° | 118.5 | 110.6 | 134.3 | 161.1 | 191.1 | 244.9 | 159.5 | 164.3 | 148.5 | 99.5 | 104.3 |
| 87.5° | 49.0 | 44.2 | 52.1 | 50.6 | 44.2 | 56.9 | 42.7 | 50.6 | 60.0 | 39.5 | 36.3 |
| 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)