

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: METALUX

Report Number: P565467

Luminaire Tested: **VHB-24-N-UNV-L750-CD1-U**

Issue Date: 9/7/2021



Test Information

Test Method: LM-79-08
Report Number: P565467
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1909-491-2)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 9/7/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: VHB-24-N-UNV-L750-CD1-U
Description: VHB LED HIGH BAY LUMINAIRE WITH NARROW DISTRIBUTION LENS AND 5000K,
70 CRI LEDS

Light Source: -
Ballast/Driver: -

Summary

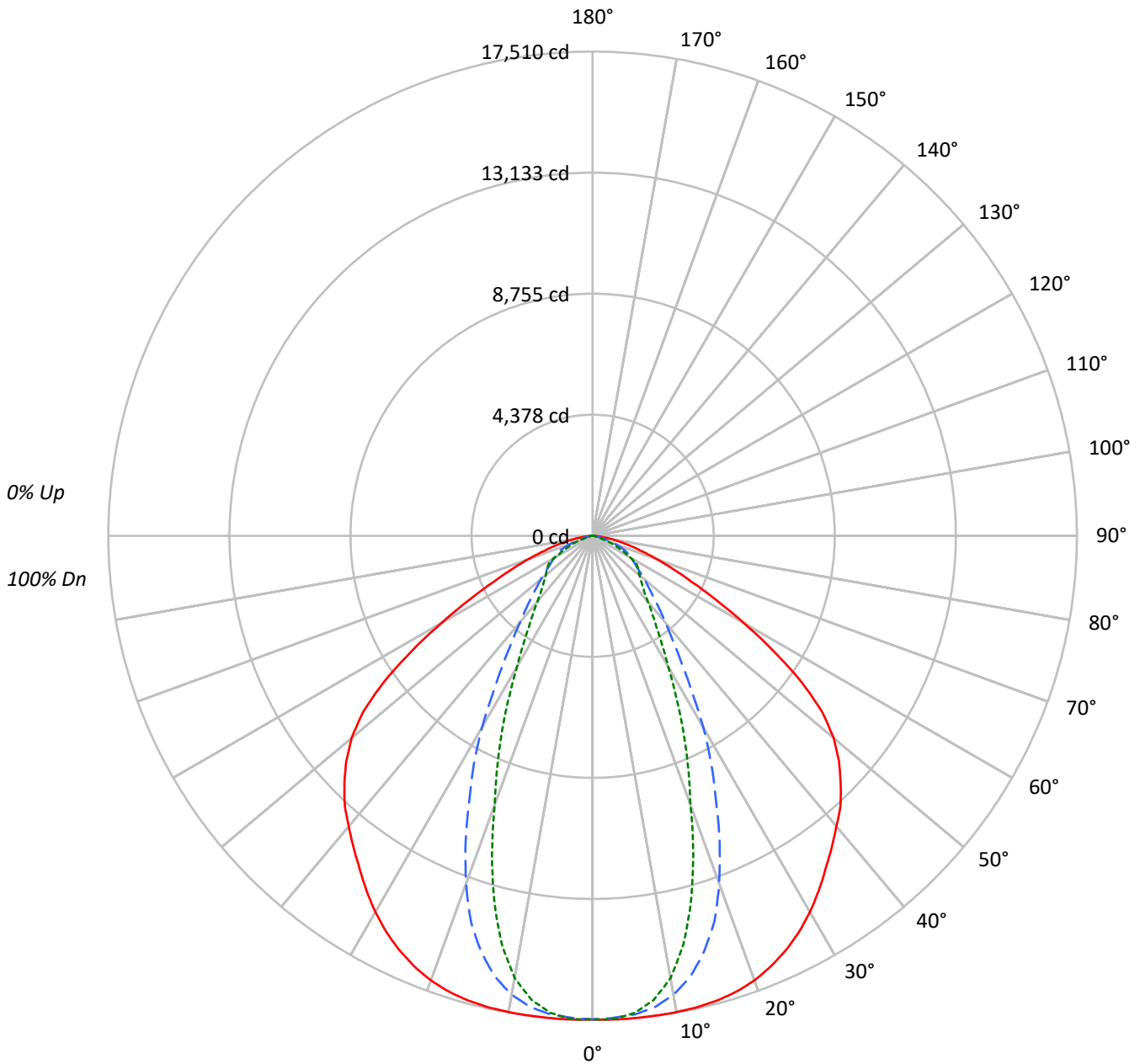
Lumens per Lamp: N/A
Luminaire Lumens: 24671.0 lumens
Efficiency: N/A
Efficacy: 141.7 lumens/watt
Spacing Criteria (0/90/45): 1.32 / 0.72 / 0.86
Luminous Opening: Rectangular (W 1.17' x L: 1.5' x H: 0')
CIE Type: Direct

Input Watts (W): 174.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT

TEST NUMBER: P565467

CATALOG NUMBER: VHB-24-N-UNV-L750-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P565467

CATALOG NUMBER: VHB-24-N-UNV-L750-CD1-U

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|---|--|--|--|--|--|--|----|--|--|--|--|--|--|--|--|---|
| RF | 20 | | | | | | | | | 20 | | | | | | | | | 20 | | | | | | | | | 20 | | | | | | | | | |
| RC | 80 | | | | | | | | | 50 | | | | | | | | | 30 | | | | | | | | | 10 | | | | | | | | | 0 |
| RW | 70 | 50 | 30 | 10 | 70 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 0 | | | | | | | | | | | | | | | | |
| RCR | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0 | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 | | | | | | | | | | | | | | | | | | | |
| 1 | 111 | 108 | 104 | 101 | 109 | 105 | 102 | 100 | 101 | 99 | 96 | 97 | 95 | 94 | 94 | 92 | 91 | 89 | | | | | | | | | | | | | | | | | | | |
| 2 | 103 | 97 | 91 | 87 | 101 | 95 | 90 | 86 | 91 | 87 | 84 | 88 | 85 | 82 | 85 | 83 | 80 | 78 | | | | | | | | | | | | | | | | | | | |
| 3 | 96 | 87 | 81 | 75 | 94 | 86 | 80 | 75 | 83 | 78 | 73 | 80 | 76 | 72 | 78 | 74 | 71 | 69 | | | | | | | | | | | | | | | | | | | |
| 4 | 89 | 79 | 72 | 66 | 87 | 78 | 71 | 66 | 76 | 70 | 65 | 74 | 68 | 64 | 71 | 67 | 64 | 62 | | | | | | | | | | | | | | | | | | | |
| 5 | 83 | 72 | 65 | 59 | 81 | 71 | 64 | 59 | 69 | 63 | 58 | 68 | 62 | 58 | 66 | 61 | 57 | 55 | | | | | | | | | | | | | | | | | | | |
| 6 | 78 | 66 | 59 | 53 | 76 | 66 | 58 | 53 | 64 | 57 | 53 | 62 | 57 | 52 | 61 | 56 | 52 | 50 | | | | | | | | | | | | | | | | | | | |
| 7 | 73 | 61 | 54 | 48 | 71 | 61 | 53 | 48 | 59 | 53 | 48 | 58 | 52 | 48 | 57 | 51 | 47 | 46 | | | | | | | | | | | | | | | | | | | |
| 8 | 69 | 57 | 49 | 44 | 67 | 56 | 49 | 44 | 55 | 49 | 44 | 54 | 48 | 44 | 53 | 47 | 44 | 42 | | | | | | | | | | | | | | | | | | | |
| 9 | 65 | 53 | 46 | 41 | 63 | 52 | 45 | 41 | 51 | 45 | 41 | 50 | 44 | 40 | 49 | 44 | 40 | 39 | | | | | | | | | | | | | | | | | | | |
| 10 | 61 | 49 | 42 | 38 | 60 | 49 | 42 | 38 | 48 | 42 | 38 | 47 | 41 | 37 | 46 | 41 | 37 | 36 | | | | | | | | | | | | | | | | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|--------|--------|--------|
| 0° | 107600 | 107600 | 107600 |
| 5° | 108106 | 107284 | 106974 |
| 10° | 109239 | 105227 | 101384 |
| 15° | 110799 | 99143 | 87418 |
| 20° | 111992 | 87588 | 67681 |
| 25° | 112217 | 71522 | 52444 |
| 30° | 111587 | 56804 | 38815 |
| 35° | 110314 | 42092 | 30183 |
| 40° | 110139 | 32687 | 24909 |
| 45° | 110372 | 26900 | 22127 |
| 50° | 108807 | 23267 | 21106 |
| 55° | 98775 | 20740 | 21325 |
| 60° | 77656 | 19820 | 19430 |
| 65° | 57678 | 19210 | 14622 |
| 70° | 44236 | 15380 | 8925 |
| 75° | 33675 | 10965 | 4926 |
| 80° | 24727 | 5101 | 3981 |
| 85° | 15477 | 4390 | 3543 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 1643.6 | 6.7 |
| 10°-20° | 4326.6 | 17.5 |
| 20°-30° | 5224.8 | 21.2 |
| 30°-40° | 4671.6 | 18.9 |
| 40°-50° | 3658.2 | 14.8 |
| 50°-60° | 2764.1 | 11.2 |
| 60°-70° | 1641.7 | 6.7 |
| 70°-80° | 630.9 | 2.6 |
| 80°-90° | 109.6 | 0.4 |
| 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°-30° | 11195.0 | 45.4 |
| 0°-40° | 15866.6 | 64.3 |
| 0°-60° | 22288.9 | 90.3 |
| 0°-90° | 24671.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 24671.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-------|-------|-------|-------|-------|------|
| 0° | 17494 | 17494 | 17494 | 17494 | 17494 | |
| 5° | 17509 | 17433 | 17376 | 17353 | 17326 | ### |
| 15° | 17400 | 16826 | 15570 | 14268 | 13728 | 4916 |
| 25° | 16535 | 14590 | 10539 | 8309 | 7728 | 7613 |
| 35° | 14691 | 10455 | 5606 | 4371 | 4020 | 9213 |
| 45° | 12689 | 5406 | 3092 | 2612 | 2544 | 9767 |
| 55° | 9211 | 2933 | 1934 | 1926 | 1989 | 8089 |
| 65° | 3963 | 1647 | 1320 | 1101 | 1005 | 4083 |
| 75° | 1417 | 792 | 461 | 228 | 207 | 1551 |
| 85° | 219 | 76 | 62 | 54 | 50 | 292 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P565467

CATALOG NUMBER: VHB-24-N-UNV-L750-CD1-U

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|---------|---------|---------|---------|---------|
| 0° | 17493.7 | 17493.7 | 17493.7 | 17493.7 | 17493.7 |
| 2.5° | 17510.1 | 17452.3 | 17447.9 | 17485.0 | 17490.4 |
| 5° | 17509.0 | 17432.6 | 17375.9 | 17353.0 | 17325.7 |
| 7.5° | 17503.5 | 17387.9 | 17197.0 | 17013.8 | 16928.7 |
| 10° | 17490.4 | 17285.4 | 16847.9 | 16431.2 | 16232.7 |
| 12.5° | 17462.1 | 17102.1 | 16329.8 | 15564.0 | 15147.3 |
| 15° | 17399.9 | 16826.1 | 15569.5 | 14268.1 | 13728.2 |
| 17.5° | 17287.6 | 16445.4 | 14637.9 | 12800.9 | 12106.1 |
| 20° | 17109.7 | 15961.1 | 13381.3 | 11127.6 | 10340.0 |
| 22.5° | 16854.5 | 15328.4 | 11997.0 | 9621.2 | 8991.8 |
| 25° | 16534.9 | 14589.9 | 10538.6 | 8308.9 | 7727.5 |
| 27.5° | 16155.3 | 13728.2 | 9281.9 | 7087.2 | 6514.5 |
| 30° | 15711.3 | 12721.3 | 7998.0 | 5933.1 | 5465.1 |
| 32.5° | 15215.0 | 11661.0 | 6657.4 | 5052.7 | 4667.7 |
| 35° | 14691.4 | 10454.6 | 5605.8 | 4371.0 | 4019.7 |
| 37.5° | 14198.3 | 9163.0 | 4747.3 | 3767.7 | 3521.2 |
| 40° | 13717.2 | 7806.0 | 4071.0 | 3291.0 | 3102.3 |
| 42.5° | 13263.5 | 6507.9 | 3553.9 | 2891.8 | 2768.5 |
| 45° | 12688.6 | 5406.2 | 3092.5 | 2612.5 | 2543.8 |
| 47.5° | 12078.8 | 4563.0 | 2726.0 | 2385.7 | 2361.7 |
| 50° | 11370.9 | 3886.6 | 2431.5 | 2188.2 | 2205.7 |
| 52.5° | 10452.4 | 3352.1 | 2152.2 | 2048.6 | 2099.9 |
| 55° | 9211.0 | 2933.3 | 1934.1 | 1926.4 | 1988.6 |
| 57.5° | 7756.9 | 2532.9 | 1761.7 | 1809.7 | 1879.5 |
| 60° | 6312.7 | 2211.1 | 1611.2 | 1681.0 | 1579.5 |
| 62.5° | 5042.9 | 1915.5 | 1468.3 | 1340.6 | 1253.4 |
| 65° | 3963.0 | 1647.2 | 1319.9 | 1100.7 | 1004.7 |
| 67.5° | 3160.1 | 1397.4 | 1110.5 | 875.9 | 796.3 |
| 70° | 2459.8 | 1174.8 | 855.2 | 657.8 | 496.3 |
| 72.5° | 1885.0 | 981.8 | 667.6 | 374.2 | 282.5 |
| 75° | 1417.0 | 791.9 | 461.4 | 228.0 | 207.3 |
| 77.5° | 1010.1 | 588.0 | 246.5 | 164.7 | 152.7 |
| 80° | 698.1 | 377.4 | 144.0 | 118.9 | 112.4 |
| 82.5° | 433.1 | 182.2 | 98.2 | 85.1 | 79.6 |
| 85° | 219.3 | 76.4 | 62.2 | 54.5 | 50.2 |
| 87.5° | 73.1 | 37.1 | 28.4 | 26.2 | 24.0 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



Report Generated By 670246072 / DESKTOP-MV3F9LC





— 0°-180° - - 45°-225° - - - - 90°-270°







(END OF REPORT)