

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: P565447

Luminaire Tested: **VHB-15-W-UNV-L735-CD1-U**

Issue Date: 9/7/2021



**Test Information**

Test Method: LM-79-08  
Report Number: P565447  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1909-491-3)  
Test Lab: INNOVATIONS CENTER(G3)  
Issue Date: 9/7/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: VHB-15-W-UNV-L735-CD1-U  
Description: VHB LED HIGH BAY LUMINAIRE WITH WIDE DISTRIBUTION LENS AND 3500K, 70 CRI LEDS

Light Source: -  
Ballast/Driver: -

**Summary**

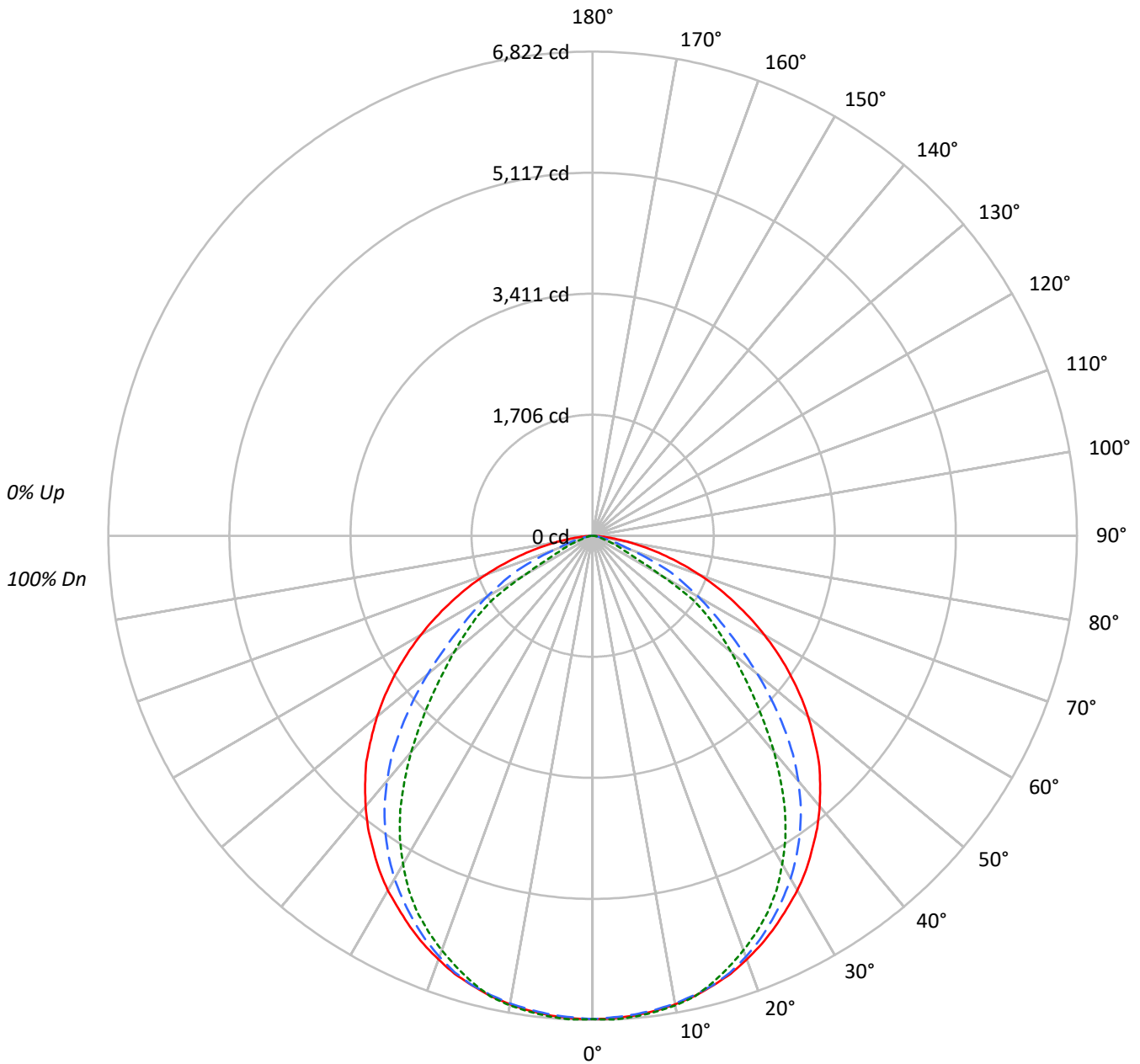
Lumens per Lamp: N/A  
Luminaire Lumens: 15317.0 lumens  
Efficiency: N/A  
Efficacy: 137.2 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.17 / 1.28  
Luminous Opening: Rectangular (W 1.17' x L: 1.5' x H: 0')  
CIE Type: Direct

Input Watts (W): 111.6  
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

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### Luminous Intensity Polar Plot





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**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 | 107 | 103 | 100 | 108 | 104 | 101 | 98  | 100 | 97  | 95  | 96  | 94  | 92  | 93  | 91  | 89  | 87  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 2   | 102 | 95  | 89  | 84  | 99  | 93  | 87  | 83  | 89  | 85  | 81  | 86  | 82  | 79  | 83  | 80  | 77  | 75  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 3   | 94  | 84  | 77  | 71  | 91  | 83  | 76  | 71  | 80  | 74  | 70  | 77  | 72  | 68  | 75  | 71  | 67  | 65  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 4   | 86  | 76  | 68  | 62  | 84  | 74  | 67  | 61  | 72  | 65  | 60  | 70  | 64  | 60  | 68  | 63  | 59  | 57  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 5   | 80  | 68  | 60  | 54  | 78  | 67  | 59  | 54  | 65  | 58  | 53  | 63  | 57  | 52  | 61  | 56  | 52  | 50  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 6   | 74  | 62  | 53  | 48  | 72  | 61  | 53  | 47  | 59  | 52  | 47  | 57  | 51  | 47  | 56  | 50  | 46  | 44  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 7   | 69  | 56  | 48  | 42  | 67  | 56  | 48  | 42  | 54  | 47  | 42  | 53  | 46  | 42  | 51  | 46  | 41  | 39  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 8   | 64  | 52  | 44  | 38  | 63  | 51  | 43  | 38  | 50  | 43  | 38  | 48  | 42  | 38  | 47  | 42  | 37  | 36  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 9   | 60  | 48  | 40  | 34  | 59  | 47  | 39  | 34  | 46  | 39  | 34  | 45  | 39  | 34  | 44  | 38  | 34  | 32  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 10  | 57  | 44  | 36  | 31  | 55  | 43  | 36  | 31  | 42  | 36  | 31  | 42  | 35  | 31  | 41  | 35  | 31  | 29  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |

**AVERAGE LUMINANCE (cd/sqm):**

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 41886 | 41886 | 41886 |
| 5°  | 41893 | 41808 | 41999 |
| 10° | 41877 | 41787 | 41959 |
| 15° | 41778 | 41734 | 41519 |
| 20° | 41577 | 41319 | 40673 |
| 25° | 41268 | 40567 | 39677 |
| 30° | 40969 | 39632 | 37936 |
| 35° | 40480 | 38243 | 35472 |
| 40° | 39947 | 36186 | 31916 |
| 45° | 39221 | 33094 | 27887 |
| 50° | 37925 | 28975 | 24362 |
| 55° | 36377 | 24682 | 21265 |
| 60° | 34364 | 21170 | 13576 |
| 65° | 31843 | 17658 | 7197  |
| 70° | 28740 | 10035 | 4663  |
| 75° | 24145 | 6148  | 2902  |
| 80° | 18348 | 3103  | 2540  |
| 85° | 11150 | 2823  | 2287  |



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**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 644.7   | 4.2       |
| 10°-20°   | 1844.6  | 12.0      |
| 20°-30°   | 2749.6  | 18.0      |
| 30°-40°   | 3166.7  | 20.7      |
| 40°-50°   | 2947.0  | 19.2      |
| 50°-60°   | 2242.5  | 14.6      |
| 60°-70°   | 1203.7  | 7.9       |
| 70°-80°   | 442.9   | 2.9       |
| 80°-90°   | 75.3    | 0.5       |
| 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°    | 5238.9  | 34.2      |
| 0°-40°    | 8405.6  | 54.9      |
| 0°-60°    | 13595.1 | 88.8      |
| 0°-90°    | 15317.0 | 100.0     |
| 90°-120°  | 0.0     | 0.0       |
| 90°-150°  | 0.0     | 0.0       |
| 90°-180°  | 0.0     | 0.0       |
| 0°-180°   | 15317.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 6810 | 6810  | 6810 | 6810  | 6810 |      |
| 5°  | 6785 | 6766  | 6771 | 6795  | 6802 | 645  |
| 15° | 6561 | 6550  | 6554 | 6542  | 6520 | 1852 |
| 25° | 6081 | 6076  | 5977 | 5892  | 5846 | 2803 |
| 35° | 5391 | 5326  | 5093 | 4837  | 4724 | 3375 |
| 45° | 4509 | 4292  | 3805 | 3353  | 3206 | 3465 |
| 55° | 3392 | 3009  | 2302 | 2049  | 1983 | 3030 |
| 65° | 2188 | 1607  | 1213 | 601   | 494  | 2170 |
| 75° | 1016 | 666   | 259  | 134   | 122  | 1089 |
| 85° | 158  | 51    | 40   | 34    | 32   | 210  |
| 90° | 0    | 0     | 0    | 0     | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 6809.9 | 6809.9 | 6809.9 | 6809.9 | 6809.9 |
| 2.5°  | 6805.0 | 6784.4 | 6791.3 | 6813.3 | 6822.3 |
| 5°    | 6785.0 | 6765.7 | 6771.3 | 6794.7 | 6802.3 |
| 7.5°  | 6751.9 | 6733.3 | 6737.5 | 6759.5 | 6767.1 |
| 10°   | 6705.0 | 6685.7 | 6690.6 | 6711.9 | 6718.1 |
| 12.5° | 6641.6 | 6623.6 | 6627.8 | 6643.0 | 6649.9 |
| 15°   | 6560.9 | 6550.5 | 6554.0 | 6541.6 | 6520.2 |
| 17.5° | 6470.5 | 6455.3 | 6451.2 | 6396.0 | 6373.3 |
| 20°   | 6351.9 | 6346.4 | 6312.6 | 6244.3 | 6213.9 |
| 22.5° | 6227.0 | 6216.7 | 6158.1 | 6076.0 | 6039.4 |
| 25°   | 6080.8 | 6076.0 | 5977.4 | 5892.5 | 5846.3 |
| 27.5° | 5923.6 | 5911.8 | 5784.9 | 5678.7 | 5615.9 |
| 30°   | 5768.4 | 5739.4 | 5580.1 | 5431.1 | 5341.4 |
| 32.5° | 5592.5 | 5538.0 | 5347.6 | 5157.2 | 5053.8 |
| 35°   | 5391.1 | 5325.5 | 5093.1 | 4837.2 | 4724.1 |
| 37.5° | 5195.9 | 5097.2 | 4817.2 | 4497.2 | 4352.3 |
| 40°   | 4975.1 | 4833.7 | 4506.8 | 4135.0 | 3975.0 |
| 42.5° | 4742.7 | 4570.3 | 4176.4 | 3743.9 | 3579.8 |
| 45°   | 4508.9 | 4291.6 | 3804.6 | 3352.9 | 3205.9 |
| 47.5° | 4230.9 | 4000.5 | 3418.4 | 2979.7 | 2853.5 |
| 50°   | 3963.3 | 3694.3 | 3028.0 | 2632.1 | 2545.9 |
| 52.5° | 3683.3 | 3357.0 | 2648.6 | 2338.2 | 2254.8 |
| 55°   | 3392.2 | 3008.7 | 2301.7 | 2049.2 | 1983.0 |
| 57.5° | 3099.7 | 2650.7 | 1994.1 | 1786.4 | 1667.8 |
| 60°   | 2793.5 | 2295.5 | 1720.9 | 1451.9 | 1103.6 |
| 62.5° | 2492.1 | 1925.8 | 1448.5 | 910.5  | 702.2  |
| 65°   | 2187.9 | 1607.1 | 1213.3 | 600.8  | 494.5  |
| 67.5° | 1897.5 | 1298.8 | 865.6  | 435.2  | 370.4  |
| 70°   | 1598.1 | 1062.2 | 558.0  | 311.8  | 259.3  |
| 72.5° | 1298.1 | 854.6  | 382.8  | 204.9  | 166.2  |
| 75°   | 1016.0 | 665.6  | 258.7  | 133.8  | 122.1  |
| 77.5° | 761.5  | 459.4  | 144.2  | 99.3   | 93.1   |
| 80°   | 518.0  | 275.2  | 87.6   | 75.9   | 71.7   |
| 82.5° | 310.4  | 131.7  | 63.5   | 55.9   | 53.8   |
| 85°   | 158.0  | 51.0   | 40.0   | 34.5   | 32.4   |
| 87.5° | 46.9   | 25.5   | 17.9   | 13.8   | 13.1   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |



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







(END OF REPORT)