

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: P565478

Luminaire Tested: **VHB-9-N-UNV-L740-CD1-U**

Issue Date: 9/7/2021



Test Information

Test Method: LM-79-08
Report Number: P565478
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-9-N-UNV-L740-CD1-U
Description: VHB LED HIGH BAY LUMINAIRE WITH NARROW DISTRIBUTION LENS AND 4000K,
70 CRI LEDS

Light Source: -
Ballast/Driver: -

Summary

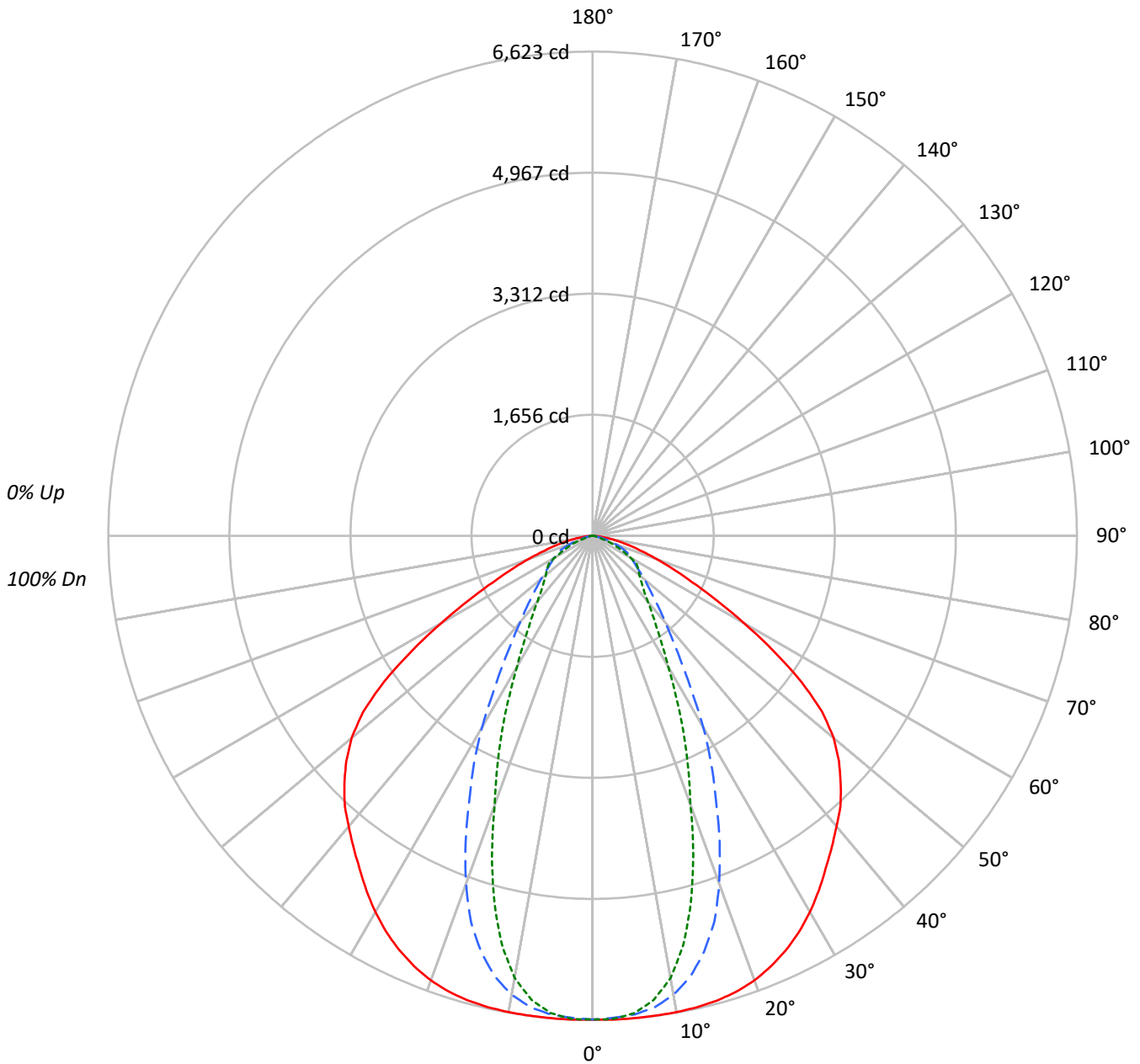
Lumens per Lamp: N/A
Luminaire Lumens: 9332.0 lumens
Efficiency: N/A
Efficacy: 144.5 lumens/watt
Spacing Criteria (0/90/45): 1.32 / 0.72 / 0.86
Luminous Opening: Rectangular (W 1.17' x L: 1.5' x H: 0')
CIE Type: Direct

Input Watts (W): 64.6
Input Voltage (V): NR
Input Current (A_{in}): 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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CATALOG NUMBER: VHB-9-N-UNV-L740-CD1-U

Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

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

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 40700 | 40700 | 40700 |
| 5° | 40892 | 40581 | 40464 |
| 10° | 41321 | 39803 | 38350 |
| 15° | 41911 | 37502 | 33067 |
| 20° | 42362 | 33131 | 25601 |
| 25° | 42446 | 27054 | 19837 |
| 30° | 42208 | 21487 | 14682 |
| 35° | 41727 | 15922 | 11417 |
| 40° | 41662 | 12364 | 9422 |
| 45° | 41749 | 10176 | 8370 |
| 50° | 41157 | 8801 | 7983 |
| 55° | 37362 | 7845 | 8066 |
| 60° | 29374 | 7497 | 7350 |
| 65° | 21816 | 7267 | 5531 |
| 70° | 16734 | 5818 | 3376 |
| 75° | 12738 | 4147 | 1863 |
| 80° | 9355 | 1930 | 1505 |
| 85° | 5850 | 1658 | 1341 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 621.7 | 6.7 |
| 10°-20° | 1636.6 | 17.5 |
| 20°-30° | 1976.3 | 21.2 |
| 30°-40° | 1767.1 | 18.9 |
| 40°-50° | 1383.7 | 14.8 |
| 50°-60° | 1045.5 | 11.2 |
| 60°-70° | 621.0 | 6.7 |
| 70°-80° | 238.6 | 2.6 |
| 80°-90° | 41.5 | 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° | 4234.6 | 45.4 |
| 0°-40° | 6001.7 | 64.3 |
| 0°-60° | 8430.9 | 90.3 |
| 0°-90° | 9332.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 9332.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 6617 | 6617 | 6617 | 6617 | 6617 | |
| 5° | 6623 | 6594 | 6573 | 6564 | 6554 | 632 |
| 15° | 6582 | 6365 | 5889 | 5397 | 5193 | 1860 |
| 25° | 6254 | 5519 | 3986 | 3143 | 2923 | 2880 |
| 35° | 5557 | 3954 | 2120 | 1653 | 1520 | 3485 |
| 45° | 4800 | 2045 | 1170 | 988 | 962 | 3694 |
| 55° | 3484 | 1110 | 732 | 729 | 752 | 3060 |
| 65° | 1499 | 623 | 499 | 416 | 380 | 1545 |
| 75° | 536 | 300 | 174 | 86 | 78 | 587 |
| 85° | 83 | 29 | 24 | 21 | 19 | 110 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P565478

CATALOG NUMBER: VHB-9-N-UNV-L740-CD1-U

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 6617.1 | 6617.1 | 6617.1 | 6617.1 | 6617.1 |
| 2.5° | 6623.3 | 6601.5 | 6599.8 | 6613.8 | 6615.9 |
| 5° | 6622.9 | 6594.0 | 6572.6 | 6563.9 | 6553.6 |
| 7.5° | 6620.9 | 6577.1 | 6504.9 | 6435.6 | 6403.4 |
| 10° | 6615.9 | 6538.3 | 6372.9 | 6215.2 | 6140.2 |
| 12.5° | 6605.2 | 6469.0 | 6176.9 | 5887.2 | 5729.6 |
| 15° | 6581.7 | 6364.6 | 5889.3 | 5397.0 | 5192.8 |
| 17.5° | 6539.2 | 6220.6 | 5536.9 | 4842.1 | 4579.2 |
| 20° | 6471.9 | 6037.4 | 5061.6 | 4209.1 | 3911.2 |
| 22.5° | 6375.3 | 5798.1 | 4538.0 | 3639.3 | 3401.2 |
| 25° | 6254.4 | 5518.8 | 3986.3 | 3142.9 | 2923.0 |
| 27.5° | 6110.9 | 5192.8 | 3511.0 | 2680.8 | 2464.1 |
| 30° | 5942.9 | 4811.9 | 3025.3 | 2244.2 | 2067.2 |
| 32.5° | 5755.2 | 4410.9 | 2518.2 | 1911.2 | 1765.6 |
| 35° | 5557.1 | 3954.5 | 2120.4 | 1653.4 | 1520.5 |
| 37.5° | 5370.6 | 3466.0 | 1795.7 | 1425.2 | 1331.9 |
| 40° | 5188.7 | 2952.7 | 1539.9 | 1244.9 | 1173.5 |
| 42.5° | 5017.0 | 2461.7 | 1344.3 | 1093.8 | 1047.2 |
| 45° | 4799.6 | 2044.9 | 1169.8 | 988.2 | 962.2 |
| 47.5° | 4568.9 | 1726.0 | 1031.1 | 902.4 | 893.3 |
| 50° | 4301.1 | 1470.2 | 919.7 | 827.7 | 834.3 |
| 52.5° | 3953.7 | 1268.0 | 814.1 | 774.9 | 794.3 |
| 55° | 3484.1 | 1109.5 | 731.6 | 728.7 | 752.2 |
| 57.5° | 2934.1 | 958.1 | 666.4 | 684.5 | 710.9 |
| 60° | 2387.8 | 836.4 | 609.4 | 635.8 | 597.5 |
| 62.5° | 1907.5 | 724.6 | 555.4 | 507.1 | 474.1 |
| 65° | 1499.0 | 623.1 | 499.3 | 416.3 | 380.0 |
| 67.5° | 1195.4 | 528.6 | 420.0 | 331.3 | 301.2 |
| 70° | 930.5 | 444.4 | 323.5 | 248.8 | 187.7 |
| 72.5° | 713.0 | 371.4 | 252.5 | 141.5 | 106.9 |
| 75° | 536.0 | 299.6 | 174.5 | 86.2 | 78.4 |
| 77.5° | 382.1 | 222.4 | 93.3 | 62.3 | 57.8 |
| 80° | 264.1 | 142.8 | 54.5 | 45.0 | 42.5 |
| 82.5° | 163.8 | 68.9 | 37.1 | 32.2 | 30.1 |
| 85° | 82.9 | 28.9 | 23.5 | 20.6 | 19.0 |
| 87.5° | 27.6 | 14.0 | 10.7 | 9.9 | 9.1 |
| 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)