

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: P563378

Luminaire Tested: **VHB-48-W-UNV-L750-CD**

Issue Date: 6/3/2022



Test Information

Test Method: LM-79-08
Report Number: P563378
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P364417)
Test Lab: INNOVATION CENTER
Issue Date: 6/3/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: VHB-48-W-UNV-L750-CD
Description: 48000 LUMEN, VHB LED LUMINAIRE WITH, WIDE LENS AND 70CRI, 5000K CCT
LEDS
Light Source: -
Ballast/Driver: -

Summary

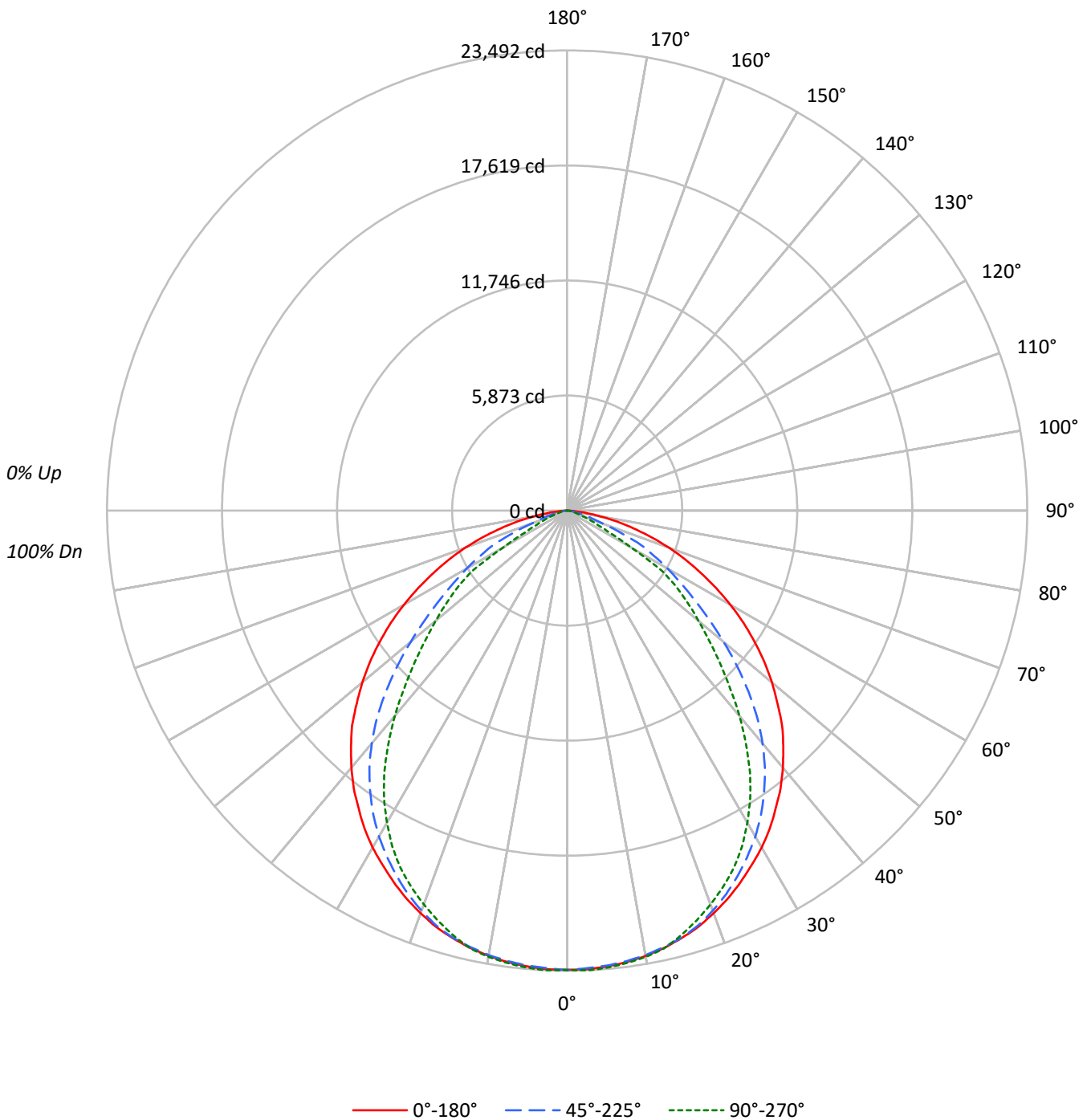
Lumens per Lamp: N/A
Luminaire Lumens: 52743.0 lumens
Efficiency: N/A
Efficacy: 162.8 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.17 / 1.28
Luminous Opening: Rectangular (W 1.75' x L: 1.58' x H: 0')
CIE Type: Direct

Input Watts (W): 324
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: P563378

CATALOG NUMBER: VHB-48-W-UNV-L750-CD

Luminous Intensity Polar Plot





TEST NUMBER: P563378

CATALOG NUMBER: VHB-48-W-UNV-L750-CD

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 | 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 | | | |
| 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° | 91096 | 91096 | 91096 |
| 5° | 91110 | 90925 | 91342 |
| 10° | 91077 | 90880 | 91255 |
| 15° | 90861 | 90766 | 90298 |
| 20° | 90423 | 89863 | 88459 |
| 25° | 89753 | 88226 | 86290 |
| 30° | 89100 | 86193 | 82507 |
| 35° | 88038 | 83172 | 77145 |
| 40° | 86879 | 78701 | 69413 |
| 45° | 85298 | 71976 | 60650 |
| 50° | 82481 | 63015 | 52982 |
| 55° | 79113 | 53681 | 46249 |
| 60° | 74738 | 46042 | 29526 |
| 65° | 69252 | 38404 | 15653 |
| 70° | 62506 | 21824 | 10143 |
| 75° | 52512 | 13371 | 6309 |
| 80° | 39907 | 6750 | 5524 |
| 85° | 24243 | 6133 | 4983 |



TEST NUMBER: P563378

CATALOG NUMBER: VHB-48-W-UNV-L750-CD

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 2220.1 | 4.2 |
| 10°-20° | 6351.6 | 12.0 |
| 20°-30° | 9468.2 | 18.0 |
| 30°-40° | 10904.1 | 20.7 |
| 40°-50° | 10148.0 | 19.2 |
| 50°-60° | 7721.9 | 14.6 |
| 60°-70° | 4144.9 | 7.9 |
| 70°-80° | 1524.9 | 2.9 |
| 80°-90° | 259.3 | 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° | 18039.8 | 34.2 |
| 0°-40° | 28944.0 | 54.9 |
| 0°-60° | 46813.8 | 88.8 |
| 0°-90° | 52743.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 52743.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-------|-------|-------|-------|-------|-------|
| 0° | 23449 | 23449 | 23449 | 23449 | 23449 | |
| 5° | 23364 | 23297 | 23316 | 23397 | 23423 | ### |
| 15° | 22592 | 22556 | 22568 | 22525 | 22452 | 6376 |
| 25° | 20939 | 20922 | 20583 | 20290 | 20131 | 9652 |
| 35° | 18564 | 18338 | 17538 | 16656 | 16267 | 11621 |
| 45° | 15526 | 14778 | 13101 | 11545 | 11039 | 11931 |
| 55° | 11681 | 10360 | 7926 | 7056 | 6828 | 10433 |
| 65° | 7534 | 5534 | 4178 | 2069 | 1703 | 7471 |
| 75° | 3498 | 2292 | 891 | 461 | 420 | 3750 |
| 85° | 544 | 176 | 138 | 119 | 112 | 725 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P563378

CATALOG NUMBER: VHB-48-W-UNV-L750-CD

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|---------|---------|---------|---------|---------|
| 0° | 23449.4 | 23449.4 | 23449.4 | 23449.4 | 23449.4 |
| 2.5° | 23432.6 | 23361.3 | 23385.3 | 23461.3 | 23492.1 |
| 5° | 23363.8 | 23297.2 | 23316.2 | 23397.1 | 23423.3 |
| 7.5° | 23249.8 | 23185.7 | 23200.0 | 23276.0 | 23302.2 |
| 10° | 23088.3 | 23021.9 | 23038.4 | 23111.9 | 23133.4 |
| 12.5° | 22869.7 | 22808.0 | 22822.3 | 22874.6 | 22898.3 |
| 15° | 22591.9 | 22556.2 | 22568.3 | 22525.3 | 22451.8 |
| 17.5° | 22280.9 | 22228.6 | 22214.3 | 22024.3 | 21945.9 |
| 20° | 21872.4 | 21853.4 | 21736.9 | 21501.8 | 21397.2 |
| 22.5° | 21442.4 | 21406.6 | 21204.8 | 20922.1 | 20796.3 |
| 25° | 20938.9 | 20922.1 | 20582.7 | 20290.4 | 20131.2 |
| 27.5° | 20397.4 | 20357.0 | 19919.8 | 19554.3 | 19337.9 |
| 30° | 19862.8 | 19763.2 | 19214.6 | 18701.5 | 18392.9 |
| 32.5° | 19257.2 | 19069.5 | 18414.1 | 17758.6 | 17402.4 |
| 35° | 18563.8 | 18338.1 | 17537.6 | 16656.4 | 16266.9 |
| 37.5° | 17891.6 | 17551.9 | 16587.6 | 15485.7 | 14986.9 |
| 40° | 17131.6 | 16644.6 | 15519.0 | 14238.7 | 13687.6 |
| 42.5° | 16331.1 | 15737.3 | 14381.3 | 12892.0 | 12326.6 |
| 45° | 15525.9 | 14777.9 | 13101.0 | 11545.4 | 11039.4 |
| 47.5° | 14568.7 | 13775.7 | 11771.1 | 10260.4 | 9825.7 |
| 50° | 13647.4 | 12721.1 | 10426.6 | 9063.5 | 8766.5 |
| 52.5° | 12683.1 | 11559.7 | 9120.5 | 8051.6 | 7764.2 |
| 55° | 11680.8 | 10360.0 | 7925.8 | 7056.4 | 6828.5 |
| 57.5° | 10673.6 | 9127.6 | 6866.5 | 6151.6 | 5743.1 |
| 60° | 9619.3 | 7904.3 | 5925.9 | 4999.6 | 3800.2 |
| 62.5° | 8581.2 | 6631.1 | 4987.7 | 3135.1 | 2417.8 |
| 65° | 7533.8 | 5533.9 | 4177.9 | 2068.7 | 1702.9 |
| 67.5° | 6534.0 | 4472.4 | 2980.7 | 1498.6 | 1275.4 |
| 70° | 5503.1 | 3657.6 | 1921.4 | 1073.6 | 893.0 |
| 72.5° | 4469.9 | 2942.7 | 1318.3 | 705.5 | 572.3 |
| 75° | 3498.5 | 2292.0 | 890.8 | 460.8 | 420.3 |
| 77.5° | 2622.0 | 1581.7 | 496.3 | 341.9 | 320.7 |
| 80° | 1783.8 | 947.8 | 301.7 | 261.2 | 246.9 |
| 82.5° | 1068.9 | 453.7 | 218.6 | 192.4 | 185.3 |
| 85° | 543.9 | 175.6 | 137.6 | 118.6 | 111.8 |
| 87.5° | 161.6 | 87.8 | 61.7 | 47.6 | 45.1 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)