

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: P237738

Luminaire Tested: **2VRVT2-LD5-4-DR-UNV-L840-CD1-WL-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P237738
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1710-355-1)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 2VRVT2-LD5-4-DR-UNV-L840-CD1-WL-U
Description: METALUX VRVT2 LED LUMINAIRE
INTERNAL PRISMATIC LENS/15% DR HIGH IMPACT ADDITIVE STANDARD DISTRIBUTION
2FT FIXTURE
Light Source: (112) 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4075.0 lumens
Efficiency: N/A
Efficacy: 141.0 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.23 / 1.35
Luminous Opening: Rectangular w/ Sides (W: 0.5' x L: 2.08' x H: 0.17')
CIE Type: Direct

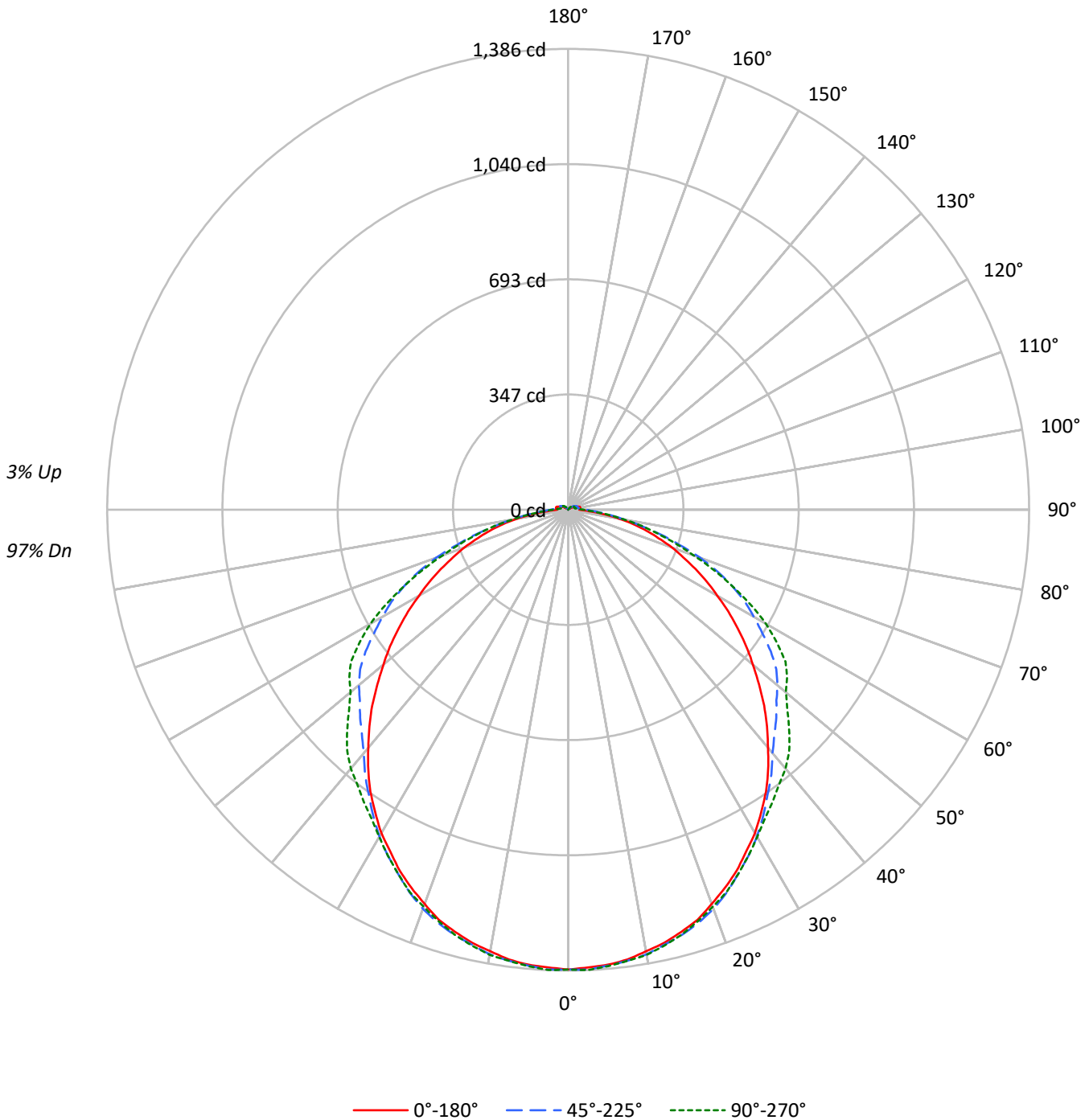
Input Watts (W): 28.9
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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 | 0 |
| RCR | | | | | | | | | | | | | | | | | | |
| 0 | 118 | 118 | 118 | 118 | 115 | 115 | 115 | 115 | 110 | 110 | 110 | 104 | 104 | 104 | 100 | 100 | 100 | 97 |
| 1 | 108 | 103 | 98 | 94 | 105 | 100 | 96 | 92 | 95 | 92 | 89 | 91 | 88 | 86 | 87 | 85 | 83 | 80 |
| 2 | 98 | 89 | 82 | 76 | 95 | 87 | 80 | 75 | 83 | 78 | 73 | 79 | 75 | 71 | 76 | 72 | 69 | 66 |
| 3 | 89 | 78 | 70 | 63 | 86 | 76 | 68 | 62 | 73 | 66 | 61 | 70 | 64 | 59 | 67 | 62 | 58 | 56 |
| 4 | 81 | 69 | 60 | 53 | 79 | 67 | 59 | 53 | 65 | 57 | 52 | 62 | 56 | 51 | 59 | 54 | 50 | 47 |
| 5 | 75 | 62 | 52 | 46 | 72 | 60 | 52 | 45 | 58 | 50 | 45 | 56 | 49 | 44 | 53 | 48 | 43 | 41 |
| 6 | 69 | 55 | 46 | 40 | 67 | 54 | 46 | 40 | 52 | 45 | 39 | 50 | 44 | 38 | 48 | 42 | 38 | 36 |
| 7 | 64 | 50 | 41 | 35 | 62 | 49 | 41 | 35 | 47 | 40 | 34 | 46 | 39 | 34 | 44 | 38 | 34 | 31 |
| 8 | 59 | 46 | 37 | 31 | 58 | 45 | 37 | 31 | 43 | 36 | 31 | 42 | 35 | 30 | 41 | 35 | 30 | 28 |
| 9 | 56 | 42 | 34 | 28 | 54 | 41 | 33 | 28 | 40 | 33 | 28 | 39 | 32 | 27 | 37 | 31 | 27 | 25 |
| 10 | 52 | 39 | 31 | 25 | 51 | 38 | 31 | 25 | 37 | 30 | 25 | 36 | 29 | 25 | 35 | 29 | 25 | 23 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 14291 | 14291 | 14291 |
| 5° | 14151 | 13921 | 13886 |
| 10° | 13955 | 13551 | 13471 |
| 15° | 13766 | 13132 | 12987 |
| 20° | 13482 | 12697 | 12463 |
| 25° | 13172 | 12131 | 11930 |
| 30° | 12811 | 11588 | 11372 |
| 35° | 12379 | 10948 | 10963 |
| 40° | 11815 | 10354 | 10715 |
| 45° | 11274 | 10003 | 10303 |
| 50° | 10642 | 9793 | 9829 |
| 55° | 10062 | 9451 | 9735 |
| 60° | 9404 | 8846 | 9000 |
| 65° | 8805 | 8184 | 7764 |
| 70° | 8228 | 7070 | 6321 |
| 75° | 7499 | 5488 | 4973 |
| 80° | 6369 | 3838 | 3502 |
| 85° | 4571 | 2557 | 2144 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 130.8 | 3.2 |
| 10°-20° | 372.6 | 9.1 |
| 20°-30° | 556.0 | 13.6 |
| 30°-40° | 658.1 | 16.1 |
| 40°-50° | 683.4 | 16.8 |
| 50°-60° | 639.8 | 15.7 |
| 60°-70° | 512.2 | 12.6 |
| 70°-80° | 302.4 | 7.4 |
| 80°-90° | 108.9 | 2.7 |
| 90°-100° | 39.3 | 1.0 |
| 100°-110° | 28.9 | 0.7 |
| 110°-120° | 21.9 | 0.5 |
| 120°-130° | 13.2 | 0.3 |
| 130°-140° | 6.3 | 0.2 |
| 140°-150° | 1.1 | 0.0 |
| 150°-160° | 0.0 | 0.0 |
| 160°-170° | 0.0 | 0.0 |
| 170°-180° | 0.0 | 0.0 |
| 0°-30° | 1059.4 | 26.0 |
| 0°-40° | 1717.5 | 42.1 |
| 0°-60° | 3040.7 | 74.6 |
| 0°-90° | 3964.2 | 97.3 |
| 90°-120° | 90.2 | 2.2 |
| 90°-150° | 110.8 | 2.7 |
| 90°-180° | 111.0 | 2.7 |
| 0°-180° | 4075.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 1383 | 1383 | 1383 | 1383 | 1383 | |
| 5° | 1374 | 1375 | 1376 | 1380 | 1378 | 130 |
| 15° | 1314 | 1314 | 1324 | 1329 | 1322 | 371 |
| 25° | 1198 | 1206 | 1209 | 1212 | 1209 | 551 |
| 35° | 1036 | 1042 | 1046 | 1061 | 1072 | 647 |
| 45° | 833 | 838 | 885 | 937 | 940 | 642 |
| 55° | 622 | 641 | 744 | 775 | 798 | 557 |
| 65° | 422 | 498 | 544 | 554 | 544 | 419 |
| 75° | 244 | 311 | 287 | 282 | 280 | 257 |
| 85° | 74 | 102 | 94 | 91 | 87 | 78 |
| 90° | 33 | 54 | 51 | 48 | 46 | 20 |
| 95° | 34 | 38 | 36 | 30 | 29 | 29 |
| 105° | 34 | 30 | 29 | 24 | 20 | 35 |
| 115° | 20 | 21 | 26 | 22 | 20 | 20 |
| 125° | 9 | 9 | 17 | 18 | 18 | 8 |
| 135° | 4 | 3 | 8 | 12 | 13 | 3 |
| 145° | 0 | 0 | 0 | 0 | 0 | 1 |
| 155° | 0 | 0 | 0 | 0 | 0 | 0 |
| 165° | 0 | 0 | 0 | 0 | 0 | 0 |
| 175° | 0 | 0 | 0 | 0 | 0 | 0 |
| 180° | 0 | 0 | 0 | 0 | 0 | 0 |



TEST NUMBER: P237738

CATALOG NUMBER: 2VRVT2-LD5-4-DR-UNV-L840-CD1-WL-U

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 0° | 1383.0 | 1383.0 | 1383.0 | 1383.0 | 1383.0 |
| 2.5° | 1377.7 | 1381.7 | 1384.3 | 1387.0 | 1385.6 |
| 5° | 1373.8 | 1375.1 | 1376.4 | 1380.4 | 1377.7 |
| 7.5° | 1364.5 | 1364.5 | 1368.5 | 1372.5 | 1368.5 |
| 10° | 1348.7 | 1350.0 | 1358.0 | 1364.5 | 1359.3 |
| 12.5° | 1334.2 | 1335.5 | 1339.5 | 1351.4 | 1342.1 |
| 15° | 1314.4 | 1314.4 | 1323.7 | 1329.0 | 1322.4 |
| 17.5° | 1293.4 | 1293.4 | 1302.6 | 1303.9 | 1297.3 |
| 20° | 1261.7 | 1264.3 | 1277.5 | 1273.6 | 1270.9 |
| 22.5° | 1231.4 | 1235.3 | 1245.9 | 1247.2 | 1244.6 |
| 25° | 1198.4 | 1206.3 | 1209.0 | 1211.6 | 1209.0 |
| 27.5° | 1158.9 | 1169.4 | 1173.4 | 1172.1 | 1173.4 |
| 30° | 1123.3 | 1129.9 | 1135.1 | 1136.5 | 1136.5 |
| 32.5° | 1079.8 | 1086.4 | 1091.6 | 1096.9 | 1100.9 |
| 35° | 1036.3 | 1041.5 | 1045.5 | 1061.3 | 1071.9 |
| 37.5° | 987.5 | 995.4 | 1003.3 | 1029.7 | 1041.5 |
| 40° | 934.7 | 942.7 | 955.8 | 998.0 | 1016.5 |
| 42.5° | 884.6 | 891.2 | 917.6 | 973.0 | 983.5 |
| 45° | 833.2 | 838.5 | 884.6 | 937.4 | 940.0 |
| 47.5° | 777.9 | 785.8 | 849.1 | 889.9 | 893.9 |
| 50° | 725.1 | 737.0 | 821.4 | 845.1 | 854.3 |
| 52.5° | 675.0 | 688.2 | 788.4 | 805.5 | 829.3 |
| 55° | 622.3 | 640.7 | 743.6 | 775.2 | 797.6 |
| 57.5° | 570.9 | 602.5 | 692.2 | 735.7 | 743.6 |
| 60° | 518.1 | 565.6 | 644.7 | 685.6 | 686.9 |
| 62.5° | 470.7 | 531.3 | 598.6 | 621.0 | 618.3 |
| 65° | 421.9 | 498.4 | 544.5 | 553.7 | 544.5 |
| 67.5° | 374.4 | 462.8 | 485.2 | 477.3 | 474.6 |
| 70° | 332.2 | 416.6 | 421.9 | 404.7 | 400.8 |
| 72.5° | 284.8 | 363.9 | 349.4 | 342.8 | 338.8 |
| 75° | 243.9 | 311.1 | 287.4 | 282.1 | 279.5 |
| 77.5° | 200.4 | 254.5 | 224.1 | 226.8 | 226.8 |
| 80° | 155.6 | 197.8 | 171.4 | 174.0 | 170.1 |
| 82.5° | 113.4 | 145.0 | 130.5 | 129.2 | 125.2 |
| 85° | 73.8 | 101.5 | 93.6 | 91.0 | 87.0 |
| 87.5° | 44.8 | 71.2 | 68.6 | 65.9 | 63.3 |
| 90° | 33.0 | 54.1 | 51.4 | 47.5 | 46.1 |
| 92.5° | 33.0 | 44.8 | 42.2 | 38.2 | 35.6 |
| 95° | 34.3 | 38.2 | 35.6 | 30.3 | 29.0 |
| 97.5° | 36.9 | 35.6 | 31.6 | 27.7 | 25.0 |
| 100° | 36.9 | 33.0 | 30.3 | 25.0 | 22.4 |
| 102.5° | 35.6 | 31.6 | 29.0 | 23.7 | 21.1 |
| 105° | 34.3 | 30.3 | 29.0 | 23.7 | 19.8 |
| 107.5° | 30.3 | 29.0 | 29.0 | 22.4 | 19.8 |
| 110° | 27.7 | 26.4 | 27.7 | 22.4 | 19.8 |



TEST NUMBER: P237738

CATALOG NUMBER: 2VRVT2-LD5-4-DR-UNV-L840-CD1-WL-U

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|------|-------|------|-------|------|
| 112.5° | 23.7 | 23.7 | 27.7 | 22.4 | 19.8 |
| 115° | 19.8 | 21.1 | 26.4 | 22.4 | 19.8 |
| 117.5° | 17.1 | 17.1 | 23.7 | 21.1 | 19.8 |
| 120° | 13.2 | 14.5 | 22.4 | 21.1 | 18.5 |
| 122.5° | 10.5 | 11.9 | 19.8 | 19.8 | 18.5 |
| 125° | 9.2 | 9.2 | 17.1 | 18.5 | 18.5 |
| 127.5° | 6.6 | 6.6 | 14.5 | 17.1 | 17.1 |
| 130° | 5.3 | 5.3 | 13.2 | 15.8 | 15.8 |
| 132.5° | 5.3 | 4.0 | 10.5 | 14.5 | 14.5 |
| 135° | 4.0 | 2.6 | 7.9 | 11.9 | 13.2 |
| 137.5° | 2.6 | 2.6 | 6.6 | 10.5 | 11.9 |
| 140° | 2.6 | 2.6 | 4.0 | 7.9 | 9.2 |
| 142.5° | 2.6 | 1.3 | 2.6 | 6.6 | 7.9 |
| 145° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 147.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 150° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 152.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 155° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 157.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 160° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 162.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 165° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 167.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 170° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 172.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 175° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 177.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 180° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)