

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: P#

Luminaire Tested: **VRVT4S-LD5-18-DR-L850-CD2-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P#
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1801-511-1)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: VRVT4S-LD5-18-DR-L850-CD2-U
Description: VRVT4S VAPORTIGHT FIXTURE WITH 5000K LED AND CLEAR ACRYLIC LENS
Light Source: -
Ballast/Driver: -

Summary

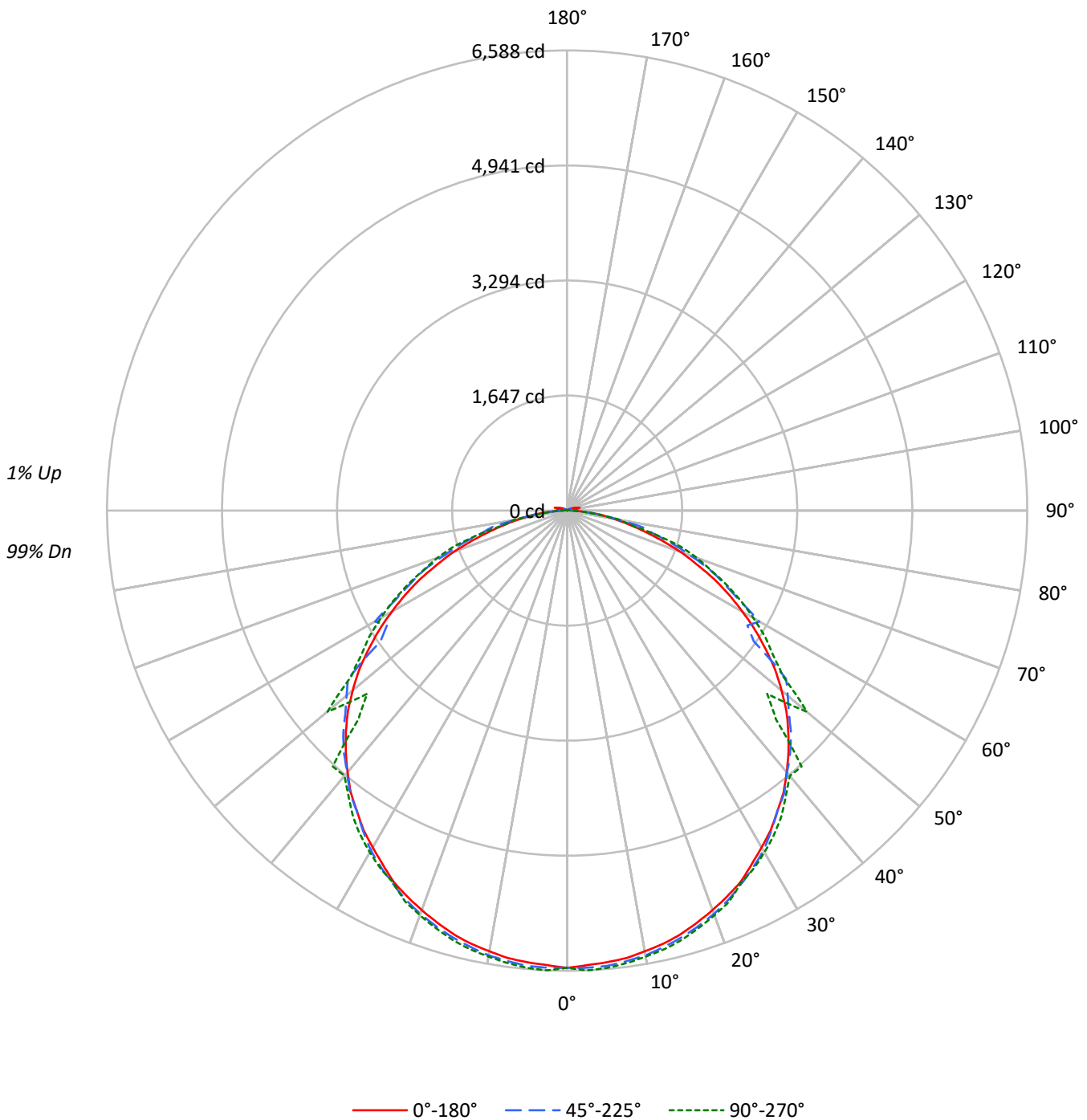
Lumens per Lamp: N/A
Luminaire Lumens: 19335.0 lumens
Efficiency: N/A
Efficacy: 140.6 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.28 / 1.4
Luminous Opening: Rectangular w/ Sides (W: 1.08' x L: 2.08' x H: 0.25')
CIE Type: Direct

Input Watts (W): 137.5
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: P#
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Luminous Intensity Polar Plot





TEST NUMBER: P#

CATALOG NUMBER: VRVT4S-LD5-18-DR-L850-CD2-U

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 | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | | 106 | 106 | 106 | | 101 | 101 | 101 | 99 |
| 1 | 108 | 104 | 99 | 95 | 106 | 101 | 97 | 94 | 97 | 94 | 91 | | 93 | 90 | 88 | | 89 | 87 | 85 | 83 |
| 2 | 99 | 90 | 83 | 78 | 96 | 88 | 82 | 77 | 84 | 79 | 75 | | 81 | 77 | 73 | | 78 | 74 | 71 | 69 |
| 3 | 90 | 79 | 71 | 64 | 87 | 77 | 70 | 64 | 74 | 68 | 62 | | 71 | 66 | 61 | | 69 | 64 | 60 | 58 |
| 4 | 82 | 70 | 61 | 54 | 80 | 69 | 60 | 54 | 66 | 59 | 53 | | 63 | 57 | 52 | | 61 | 56 | 51 | 49 |
| 5 | 75 | 62 | 53 | 47 | 73 | 61 | 53 | 46 | 59 | 51 | 46 | | 57 | 50 | 45 | | 55 | 49 | 45 | 42 |
| 6 | 70 | 56 | 47 | 41 | 68 | 55 | 47 | 40 | 53 | 46 | 40 | | 51 | 45 | 39 | | 50 | 44 | 39 | 37 |
| 7 | 64 | 51 | 42 | 36 | 63 | 50 | 42 | 36 | 48 | 41 | 35 | | 47 | 40 | 35 | | 45 | 39 | 35 | 33 |
| 8 | 60 | 46 | 38 | 32 | 58 | 46 | 37 | 32 | 44 | 37 | 31 | | 43 | 36 | 31 | | 42 | 35 | 31 | 29 |
| 9 | 56 | 42 | 34 | 29 | 54 | 42 | 34 | 29 | 41 | 33 | 28 | | 39 | 33 | 28 | | 38 | 32 | 28 | 26 |
| 10 | 52 | 39 | 31 | 26 | 51 | 39 | 31 | 26 | 38 | 31 | 26 | | 37 | 30 | 25 | | 36 | 30 | 25 | 24 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 31230 | 31230 | 31230 |
| 5° | 30770 | 30674 | 30855 |
| 10° | 30401 | 30011 | 30184 |
| 15° | 30054 | 29306 | 29587 |
| 20° | 29610 | 28613 | 28875 |
| 25° | 29267 | 27836 | 27960 |
| 30° | 28688 | 27080 | 27468 |
| 35° | 28213 | 26058 | 26813 |
| 40° | 27674 | 25255 | 25872 |
| 45° | 26984 | 24504 | 23166 |
| 50° | 26025 | 23620 | 26074 |
| 55° | 24659 | 20038 | 22483 |
| 60° | 22896 | 21198 | 21005 |
| 65° | 20810 | 18262 | 19009 |
| 70° | 18095 | 15504 | 16833 |
| 75° | 14388 | 12255 | 12577 |
| 80° | 11072 | 8388 | 9135 |
| 85° | 6985 | 3995 | 4057 |



TEST NUMBER: P#

CATALOG NUMBER: VRVT4S-LD5-18-DR-L850-CD2-U

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 621.7 | 3.2 |
| 10°-20° | 1785.4 | 9.2 |
| 20°-30° | 2717.6 | 14.1 |
| 30°-40° | 3310.6 | 17.1 |
| 40°-50° | 3457.6 | 17.9 |
| 50°-60° | 3163.2 | 16.4 |
| 60°-70° | 2415.8 | 12.5 |
| 70°-80° | 1317.1 | 6.8 |
| 80°-90° | 355.8 | 1.8 |
| 90°-100° | 54.4 | 0.3 |
| 100°-110° | 66.2 | 0.3 |
| 110°-120° | 39.8 | 0.2 |
| 120°-130° | 19.0 | 0.1 |
| 130°-140° | 6.5 | 0.0 |
| 140°-150° | 2.0 | 0.0 |
| 150°-160° | 1.0 | 0.0 |
| 160°-170° | 1.0 | 0.0 |
| 170°-180° | 0.4 | 0.0 |
| 0°-30° | 5124.6 | 26.5 |
| 0°-40° | 8435.2 | 43.6 |
| 0°-60° | 15056.0 | 77.9 |
| 0°-90° | 19144.8 | 99.0 |
| 90°-120° | 160.4 | 0.8 |
| 90°-150° | 187.9 | 1.0 |
| 90°-180° | 190.0 | 1.0 |
| 0°-180° | 19335.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 6545 | 6545 | 6545 | 6545 | 6545 | |
| 5° | 6492 | 6518 | 6543 | 6566 | 6572 | 617 |
| 15° | 6280 | 6304 | 6327 | 6350 | 6360 | 1772 |
| 25° | 5870 | 5889 | 5899 | 5915 | 5882 | 2700 |
| 35° | 5251 | 5279 | 5251 | 5318 | 5347 | 3288 |
| 45° | 4479 | 4499 | 4532 | 4765 | 4226 | 3452 |
| 55° | 3472 | 3493 | 3262 | 3618 | 3594 | 3103 |
| 65° | 2318 | 2388 | 2478 | 2486 | 2517 | 2287 |
| 75° | 1130 | 1216 | 1280 | 1278 | 1270 | 1223 |
| 85° | 303 | 305 | 280 | 272 | 270 | 330 |
| 90° | 52 | 86 | 82 | 80 | 78 | 39 |
| 95° | 49 | 45 | 47 | 39 | 39 | 58 |
| 105° | 158 | 210 | 27 | 29 | 29 | 158 |
| 115° | 78 | 39 | 52 | 18 | 21 | 80 |
| 125° | 35 | 29 | 14 | 8 | 10 | 33 |
| 135° | 16 | 12 | 6 | 4 | 4 | 13 |
| 145° | 6 | 4 | 2 | 2 | 2 | 4 |
| 155° | 2 | 2 | 2 | 2 | 2 | 1 |
| 165° | 4 | 4 | 4 | 4 | 2 | 1 |
| 175° | 4 | 4 | 4 | 4 | 4 | 0 |
| 180° | 4 | 4 | 4 | 4 | 4 | |



TEST NUMBER: P#

CATALOG NUMBER: VRVT4S-LD5-18-DR-L850-CD2-U

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 0° | 6545.2 | 6545.2 | 6545.2 | 6545.2 | 6545.2 |
| 2.5° | 6514.4 | 6530.8 | 6551.4 | 6580.2 | 6588.5 |
| 5° | 6491.7 | 6518.5 | 6543.2 | 6565.8 | 6572.0 |
| 7.5° | 6462.9 | 6495.8 | 6506.1 | 6534.9 | 6534.9 |
| 10° | 6407.3 | 6444.4 | 6465.0 | 6483.5 | 6483.5 |
| 12.5° | 6353.8 | 6380.6 | 6399.1 | 6421.7 | 6432.0 |
| 15° | 6279.7 | 6304.4 | 6327.1 | 6349.7 | 6360.0 |
| 17.5° | 6185.0 | 6224.2 | 6238.6 | 6257.1 | 6265.3 |
| 20° | 6086.2 | 6123.3 | 6143.9 | 6160.3 | 6164.5 |
| 22.5° | 5981.3 | 6010.1 | 6030.7 | 6036.9 | 6059.5 |
| 25° | 5870.1 | 5888.7 | 5898.9 | 5915.4 | 5882.5 |
| 27.5° | 5713.7 | 5748.7 | 5763.1 | 5748.7 | 5781.6 |
| 30° | 5567.6 | 5602.6 | 5619.0 | 5623.1 | 5649.9 |
| 32.5° | 5423.5 | 5448.2 | 5440.0 | 5470.8 | 5509.9 |
| 35° | 5250.6 | 5279.4 | 5250.6 | 5318.5 | 5347.3 |
| 37.5° | 5088.0 | 5102.4 | 5104.5 | 5172.4 | 5143.6 |
| 40° | 4890.4 | 4908.9 | 4898.6 | 4941.9 | 4958.3 |
| 42.5° | 4690.8 | 4707.2 | 4725.7 | 4758.7 | 4968.6 |
| 45° | 4478.8 | 4499.3 | 4532.3 | 4764.9 | 4225.6 |
| 47.5° | 4258.5 | 4262.6 | 4305.9 | 3949.8 | 3881.9 |
| 50° | 4007.4 | 4005.4 | 4122.7 | 3750.1 | 4478.8 |
| 52.5° | 3756.3 | 3754.3 | 3949.8 | 4126.8 | 3896.3 |
| 55° | 3472.3 | 3492.9 | 3262.3 | 3618.4 | 3593.7 |
| 57.5° | 3196.5 | 3215.0 | 3058.6 | 3305.6 | 3359.1 |
| 60° | 2898.0 | 2970.1 | 3175.9 | 3079.1 | 3081.2 |
| 62.5° | 2614.0 | 2677.8 | 2768.3 | 2799.2 | 2811.6 |
| 65° | 2317.6 | 2387.6 | 2478.1 | 2486.4 | 2517.2 |
| 67.5° | 2002.7 | 2103.5 | 2212.6 | 2198.2 | 2227.0 |
| 70° | 1724.8 | 1601.3 | 1868.9 | 1881.2 | 1971.8 |
| 72.5° | 1412.0 | 1560.2 | 1580.7 | 1317.3 | 1696.0 |
| 75° | 1130.0 | 1216.4 | 1280.2 | 1278.2 | 1269.9 |
| 77.5° | 895.3 | 953.0 | 1107.3 | 996.2 | 901.5 |
| 80° | 677.2 | 693.6 | 734.8 | 730.7 | 767.7 |
| 82.5° | 510.4 | 485.7 | 500.2 | 494.0 | 436.3 |
| 85° | 302.6 | 304.6 | 279.9 | 271.7 | 269.6 |
| 87.5° | 125.6 | 140.0 | 135.8 | 129.7 | 140.0 |
| 90° | 51.5 | 86.4 | 82.3 | 80.3 | 78.2 |
| 92.5° | 57.6 | 61.7 | 57.6 | 49.4 | 43.2 |
| 95° | 49.4 | 45.3 | 47.3 | 39.1 | 39.1 |
| 97.5° | 67.9 | 37.0 | 37.0 | 32.9 | 30.9 |
| 100° | 135.8 | 32.9 | 35.0 | 28.8 | 28.8 |
| 102.5° | 181.1 | 35.0 | 30.9 | 28.8 | 30.9 |
| 105° | 158.5 | 209.9 | 26.8 | 28.8 | 28.8 |
| 107.5° | 133.8 | 123.5 | 24.7 | 26.8 | 28.8 |
| 110° | 113.2 | 76.2 | 20.6 | 24.7 | 26.8 |



TEST NUMBER: P#

CATALOG NUMBER: VRVT4S-LD5-18-DR-L850-CD2-U

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|------|-------|------|-------|------|
| 112.5° | 92.6 | 53.5 | 18.5 | 20.6 | 24.7 |
| 115° | 78.2 | 39.1 | 51.5 | 18.5 | 20.6 |
| 117.5° | 65.9 | 41.2 | 55.6 | 16.5 | 18.5 |
| 120° | 53.5 | 84.4 | 28.8 | 14.4 | 14.4 |
| 122.5° | 43.2 | 39.1 | 20.6 | 10.3 | 12.3 |
| 125° | 35.0 | 28.8 | 14.4 | 8.2 | 10.3 |
| 127.5° | 28.8 | 22.6 | 10.3 | 6.2 | 8.2 |
| 130° | 24.7 | 20.6 | 6.2 | 6.2 | 6.2 |
| 132.5° | 20.6 | 16.5 | 6.2 | 4.1 | 6.2 |
| 135° | 16.5 | 12.3 | 6.2 | 4.1 | 4.1 |
| 137.5° | 12.3 | 10.3 | 4.1 | 4.1 | 4.1 |
| 140° | 10.3 | 6.2 | 2.1 | 2.1 | 2.1 |
| 142.5° | 8.2 | 6.2 | 2.1 | 2.1 | 2.1 |
| 145° | 6.2 | 4.1 | 2.1 | 2.1 | 2.1 |
| 147.5° | 4.1 | 2.1 | 2.1 | 2.1 | 2.1 |
| 150° | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 |
| 152.5° | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 |
| 155° | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 |
| 157.5° | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 |
| 160° | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 |
| 162.5° | 4.1 | 4.1 | 4.1 | 4.1 | 2.1 |
| 165° | 4.1 | 4.1 | 4.1 | 4.1 | 2.1 |
| 167.5° | 4.1 | 4.1 | 4.1 | 4.1 | 2.1 |
| 170° | 4.1 | 4.1 | 4.1 | 4.1 | 2.1 |
| 172.5° | 4.1 | 4.1 | 4.1 | 4.1 | 4.1 |
| 175° | 4.1 | 4.1 | 4.1 | 4.1 | 4.1 |
| 177.5° | 4.1 | 4.1 | 4.1 | 4.1 | 4.1 |
| 180° | 4.1 | 4.1 | 4.1 | 4.1 | 4.1 |

(END OF REPORT)