

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-LD5-9-DR-L840-CD1-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-LD5-9-DR-L840-CD1-U
Description: VRVT4S VAPORTIGHT FIXTURE WITH 4000K LED AND CLEAR ACRYLIC LENS
Light Source: -
Ballast/Driver: -

Summary

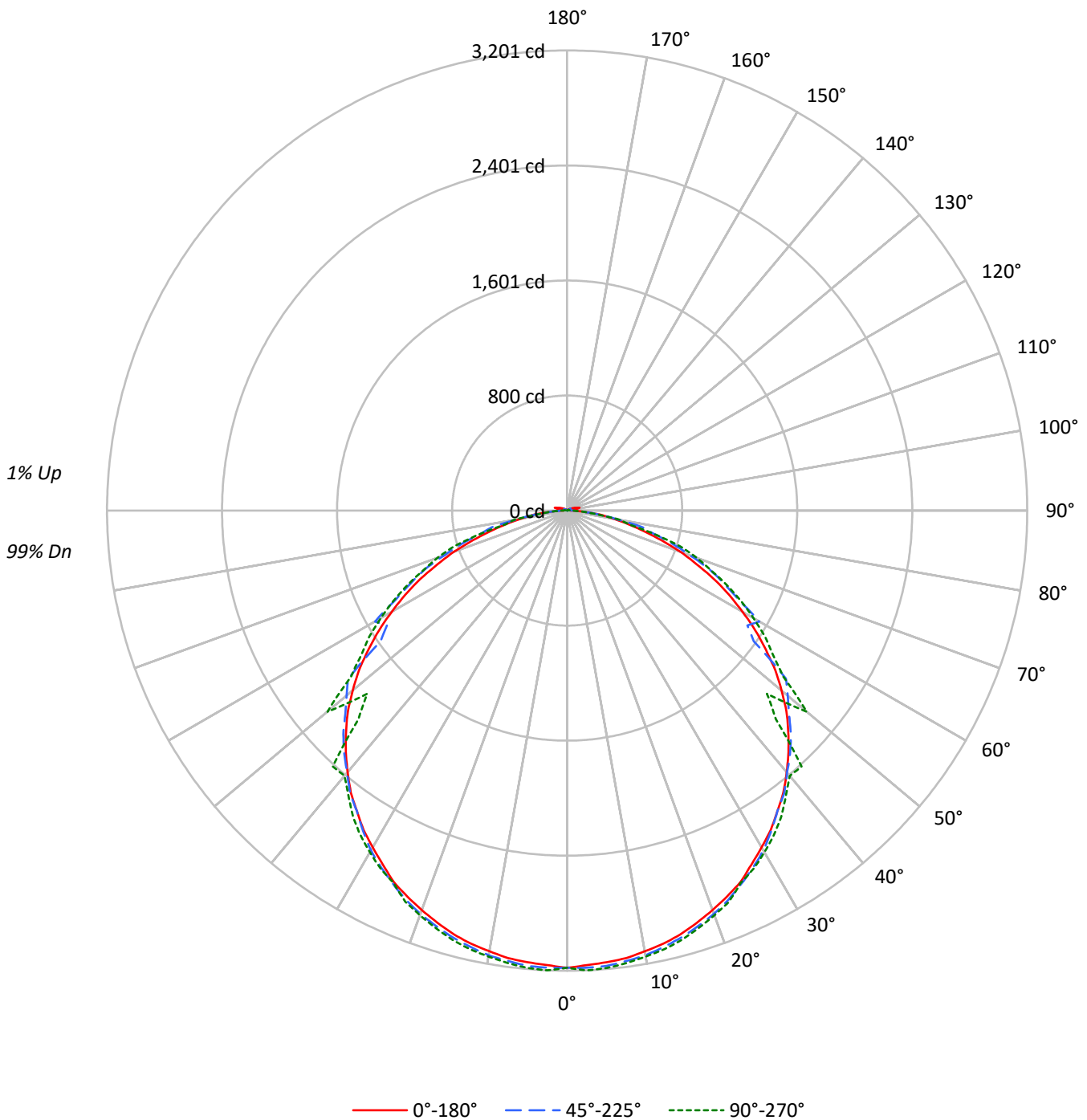
Lumens per Lamp: N/A
Luminaire Lumens: 9393.9 lumens
Efficiency: N/A
Efficacy: 152.7 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.28 / 1.4
Luminous Opening: Rectangular w/ Sides (W: 1.08' x L: 2.08' x H: 0.25')
CIE Type: Direct

Input Watts (W): 61.5
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



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Luminous Intensity Polar Plot





TEST NUMBER: P#

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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 | 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° | 15173 | 15173 | 15173 |
| 5° | 14950 | 14903 | 14991 |
| 10° | 14770 | 14581 | 14665 |
| 15° | 14602 | 14238 | 14375 |
| 20° | 14386 | 13902 | 14029 |
| 25° | 14219 | 13524 | 13584 |
| 30° | 13938 | 13157 | 13345 |
| 35° | 13707 | 12660 | 13027 |
| 40° | 13445 | 12270 | 12570 |
| 45° | 13110 | 11905 | 11255 |
| 50° | 12644 | 11476 | 12668 |
| 55° | 11980 | 9736 | 10923 |
| 60° | 11124 | 10299 | 10205 |
| 65° | 10111 | 8873 | 9236 |
| 70° | 8792 | 7533 | 8178 |
| 75° | 6990 | 5954 | 6110 |
| 80° | 5379 | 4075 | 4439 |
| 85° | 3393 | 1941 | 1971 |



TEST NUMBER: P#

CATALOG NUMBER: VRVT4S-LD5-9-DR-L840-CD1-U

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 302.0 | 3.2 |
| 10°-20° | 867.4 | 9.2 |
| 20°-30° | 1320.3 | 14.1 |
| 30°-40° | 1608.4 | 17.1 |
| 40°-50° | 1679.9 | 17.9 |
| 50°-60° | 1536.9 | 16.4 |
| 60°-70° | 1173.7 | 12.5 |
| 70°-80° | 639.9 | 6.8 |
| 80°-90° | 172.9 | 1.8 |
| 90°-100° | 26.5 | 0.3 |
| 100°-110° | 32.1 | 0.3 |
| 110°-120° | 19.4 | 0.2 |
| 120°-130° | 9.2 | 0.1 |
| 130°-140° | 3.1 | 0.0 |
| 140°-150° | 1.0 | 0.0 |
| 150°-160° | 0.5 | 0.0 |
| 160°-170° | 0.5 | 0.0 |
| 170°-180° | 0.2 | 0.0 |
| 0°-30° | 2489.8 | 26.5 |
| 0°-40° | 4098.2 | 43.6 |
| 0°-60° | 7314.9 | 77.9 |
| 0°-90° | 9301.5 | 99.0 |
| 90°-120° | 78.0 | 0.8 |
| 90°-150° | 91.3 | 1.0 |
| 90°-180° | 92.0 | 1.0 |
| 0°-180° | 9393.9 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 3180 | 3180 | 3180 | 3180 | 3180 | |
| 5° | 3154 | 3167 | 3179 | 3190 | 3193 | 300 |
| 15° | 3051 | 3063 | 3074 | 3085 | 3090 | 861 |
| 25° | 2852 | 2861 | 2866 | 2874 | 2858 | 1312 |
| 35° | 2551 | 2565 | 2551 | 2584 | 2598 | 1598 |
| 45° | 2176 | 2186 | 2202 | 2315 | 2053 | 1677 |
| 55° | 1687 | 1697 | 1585 | 1758 | 1746 | 1508 |
| 65° | 1126 | 1160 | 1204 | 1208 | 1223 | 1111 |
| 75° | 549 | 591 | 622 | 621 | 617 | 594 |
| 85° | 147 | 148 | 136 | 132 | 131 | 160 |
| 90° | 25 | 42 | 40 | 39 | 38 | 19 |
| 95° | 24 | 22 | 23 | 19 | 19 | 28 |
| 105° | 77 | 102 | 13 | 14 | 14 | 77 |
| 115° | 38 | 19 | 25 | 9 | 10 | 39 |
| 125° | 17 | 14 | 7 | 4 | 5 | 16 |
| 135° | 8 | 6 | 3 | 2 | 2 | 6 |
| 145° | 3 | 2 | 1 | 1 | 1 | 2 |
| 155° | 1 | 1 | 1 | 1 | 1 | 0 |
| 165° | 2 | 2 | 2 | 2 | 1 | 1 |
| 175° | 2 | 2 | 2 | 2 | 2 | 0 |
| 180° | 2 | 2 | 2 | 2 | 2 | |



TEST NUMBER: P#

CATALOG NUMBER: VRVT4S-LD5-9-DR-L840-CD1-U

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|------|-------|------|-------|------|
| 0° | 3180 | 3180 | 3180 | 3180 | 3180 |
| 2.5° | 3165 | 3173 | 3183 | 3197 | 3201 |
| 5° | 3154 | 3167 | 3179 | 3190 | 3193 |
| 7.5° | 3140 | 3156 | 3161 | 3175 | 3175 |
| 10° | 3113 | 3131 | 3141 | 3150 | 3150 |
| 12.5° | 3087 | 3100 | 3109 | 3120 | 3125 |
| 15° | 3051 | 3063 | 3074 | 3085 | 3090 |
| 17.5° | 3005 | 3024 | 3031 | 3040 | 3044 |
| 20° | 2957 | 2975 | 2985 | 2993 | 2995 |
| 22.5° | 2906 | 2920 | 2930 | 2933 | 2944 |
| 25° | 2852 | 2861 | 2866 | 2874 | 2858 |
| 27.5° | 2776 | 2793 | 2800 | 2793 | 2809 |
| 30° | 2705 | 2722 | 2730 | 2732 | 2745 |
| 32.5° | 2635 | 2647 | 2643 | 2658 | 2677 |
| 35° | 2551 | 2565 | 2551 | 2584 | 2598 |
| 37.5° | 2472 | 2479 | 2480 | 2513 | 2499 |
| 40° | 2376 | 2385 | 2380 | 2401 | 2409 |
| 42.5° | 2279 | 2287 | 2296 | 2312 | 2414 |
| 45° | 2176 | 2186 | 2202 | 2315 | 2053 |
| 47.5° | 2069 | 2071 | 2092 | 1919 | 1886 |
| 50° | 1947 | 1946 | 2003 | 1822 | 2176 |
| 52.5° | 1825 | 1824 | 1919 | 2005 | 1893 |
| 55° | 1687 | 1697 | 1585 | 1758 | 1746 |
| 57.5° | 1553 | 1562 | 1486 | 1606 | 1632 |
| 60° | 1408 | 1443 | 1543 | 1496 | 1497 |
| 62.5° | 1270 | 1301 | 1345 | 1360 | 1366 |
| 65° | 1126 | 1160 | 1204 | 1208 | 1223 |
| 67.5° | 973 | 1022 | 1075 | 1068 | 1082 |
| 70° | 838 | 778 | 908 | 914 | 958 |
| 72.5° | 686 | 758 | 768 | 640 | 824 |
| 75° | 549 | 591 | 622 | 621 | 617 |
| 77.5° | 435 | 463 | 538 | 484 | 438 |
| 80° | 329 | 337 | 357 | 355 | 373 |
| 82.5° | 248 | 236 | 243 | 240 | 212 |
| 85° | 147 | 148 | 136 | 132 | 131 |
| 87.5° | 61 | 68 | 66 | 63 | 68 |
| 90° | 25 | 42 | 40 | 39 | 38 |
| 92.5° | 28 | 30 | 28 | 24 | 21 |
| 95° | 24 | 22 | 23 | 19 | 19 |
| 97.5° | 33 | 18 | 18 | 16 | 15 |
| 100° | 66 | 16 | 17 | 14 | 14 |
| 102.5° | 88 | 17 | 15 | 14 | 15 |
| 105° | 77 | 102 | 13 | 14 | 14 |
| 107.5° | 65 | 60 | 12 | 13 | 14 |
| 110° | 55 | 37 | 10 | 12 | 13 |



TEST NUMBER: P#

CATALOG NUMBER: VRVT4S-LD5-9-DR-L840-CD1-U

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|----|-------|-----|-------|-----|
| 112.5° | 45 | 26 | 9 | 10 | 12 |
| 115° | 38 | 19 | 25 | 9 | 10 |
| 117.5° | 32 | 20 | 27 | 8 | 9 |
| 120° | 26 | 41 | 14 | 7 | 7 |
| 122.5° | 21 | 19 | 10 | 5 | 6 |
| 125° | 17 | 14 | 7 | 4 | 5 |
| 127.5° | 14 | 11 | 5 | 3 | 4 |
| 130° | 12 | 10 | 3 | 3 | 3 |
| 132.5° | 10 | 8 | 3 | 2 | 3 |
| 135° | 8 | 6 | 3 | 2 | 2 |
| 137.5° | 6 | 5 | 2 | 2 | 2 |
| 140° | 5 | 3 | 1 | 1 | 1 |
| 142.5° | 4 | 3 | 1 | 1 | 1 |
| 145° | 3 | 2 | 1 | 1 | 1 |
| 147.5° | 2 | 1 | 1 | 1 | 1 |
| 150° | 1 | 1 | 1 | 1 | 1 |
| 152.5° | 1 | 1 | 1 | 1 | 1 |
| 155° | 1 | 1 | 1 | 1 | 1 |
| 157.5° | 1 | 1 | 1 | 1 | 1 |
| 160° | 1 | 1 | 1 | 1 | 1 |
| 162.5° | 2 | 2 | 2 | 2 | 1 |
| 165° | 2 | 2 | 2 | 2 | 1 |
| 167.5° | 2 | 2 | 2 | 2 | 1 |
| 170° | 2 | 2 | 2 | 2 | 1 |
| 172.5° | 2 | 2 | 2 | 2 | 2 |
| 175° | 2 | 2 | 2 | 2 | 2 |
| 177.5° | 2 | 2 | 2 | 2 | 2 |
| 180° | 2 | 2 | 2 | 2 | 2 |

(END OF REPORT)