

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: P275832

Luminaire Tested: **14CZ2-44-RDP-UNV-L82765-W2A1-U-4000K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P275832
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-43)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 14CZ2-44-RDP-UNV-L82765-W2A1-U-4000K
Description: CRUZE 2.0 1x4 TUNABLE WHITE LED TROFFER WITH RDP LENS
Light Source: (168) 80 CRI LEDS TUNED TO 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2755.0 lumens
Efficiency: N/A
Efficacy: 76.5 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.29 / 1.4
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

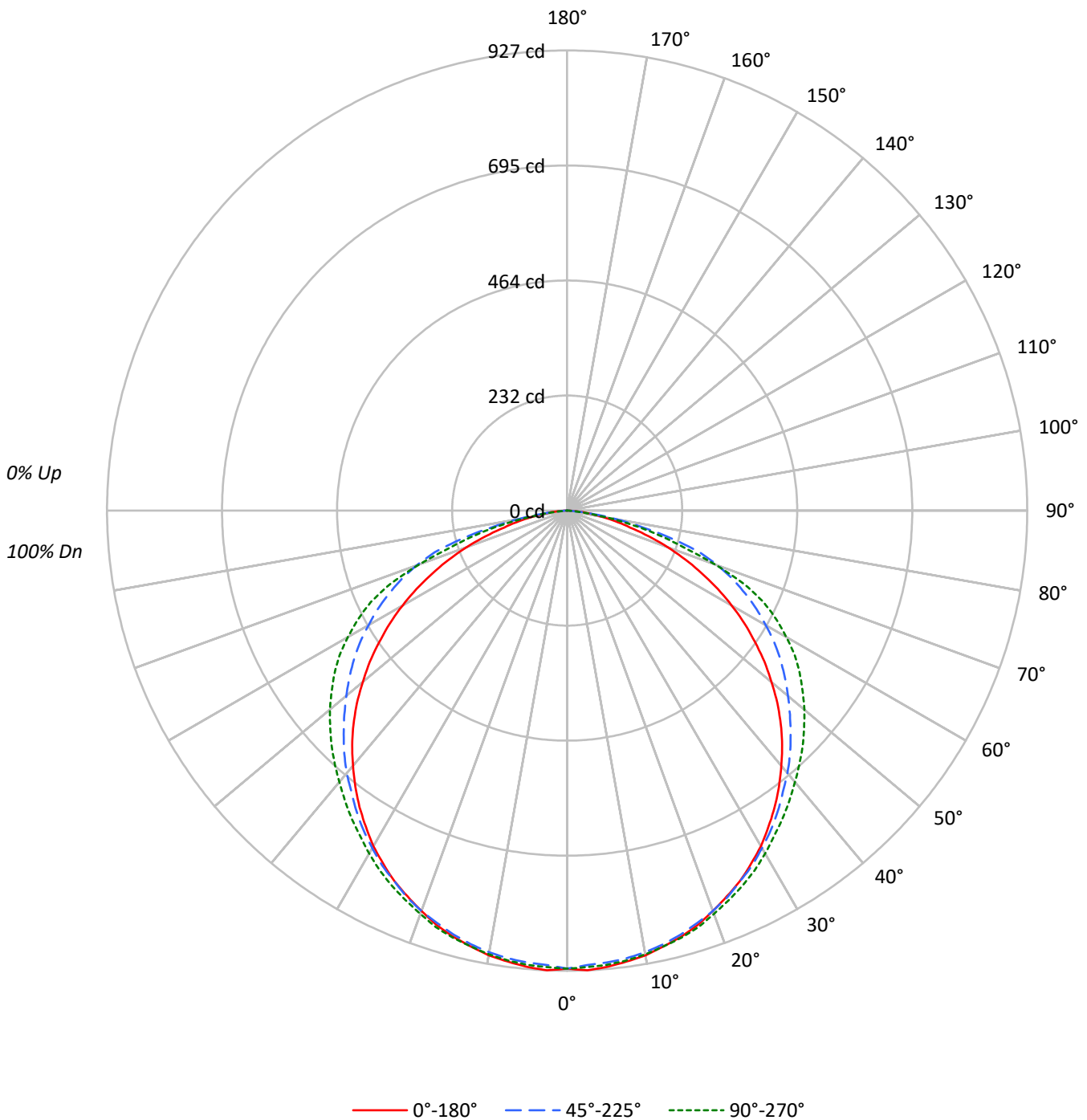
Input Watts (W): 35.991
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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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 | 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 | 109 | 104 | 100 | 96 | 106 | 102 | 98 | 94 | 97 | 94 | 91 | 93 | 91 | 88 | 90 | 88 | 86 | 84 | | | | | 84 | | | |
| 2 | 99 | 90 | 83 | 77 | 96 | 88 | 82 | 76 | 85 | 79 | 75 | 81 | 77 | 73 | 78 | 75 | 71 | 69 | | | | | 69 | | | |
| 3 | 90 | 79 | 71 | 64 | 87 | 77 | 70 | 63 | 74 | 68 | 62 | 71 | 66 | 61 | 69 | 64 | 60 | 58 | | | | | 58 | | | |
| 4 | 82 | 70 | 61 | 54 | 80 | 68 | 60 | 53 | 66 | 58 | 53 | 63 | 57 | 52 | 61 | 56 | 51 | 49 | | | | | 49 | | | |
| 5 | 75 | 62 | 53 | 46 | 73 | 61 | 52 | 46 | 59 | 51 | 45 | 57 | 50 | 45 | 55 | 49 | 44 | 42 | | | | | 42 | | | |
| 6 | 69 | 56 | 47 | 40 | 67 | 55 | 46 | 40 | 53 | 45 | 40 | 51 | 44 | 39 | 50 | 44 | 39 | 37 | | | | | 37 | | | |
| 7 | 64 | 50 | 42 | 35 | 62 | 50 | 41 | 35 | 48 | 40 | 35 | 47 | 40 | 35 | 45 | 39 | 34 | 32 | | | | | 32 | | | |
| 8 | 60 | 46 | 37 | 31 | 58 | 45 | 37 | 31 | 44 | 36 | 31 | 43 | 36 | 31 | 41 | 35 | 31 | 29 | | | | | 29 | | | |
| 9 | 56 | 42 | 34 | 28 | 54 | 42 | 34 | 28 | 40 | 33 | 28 | 39 | 33 | 28 | 38 | 32 | 28 | 26 | | | | | 26 | | | |
| 10 | 52 | 39 | 31 | 25 | 51 | 38 | 31 | 25 | 37 | 30 | 25 | 36 | 30 | 25 | 35 | 29 | 25 | 23 | | | | | 23 | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 2483 | 2483 | 2483 |
| 5° | 2492 | 2469 | 2481 |
| 10° | 2486 | 2469 | 2480 |
| 15° | 2475 | 2463 | 2481 |
| 20° | 2458 | 2458 | 2476 |
| 25° | 2446 | 2446 | 2478 |
| 30° | 2426 | 2440 | 2480 |
| 35° | 2395 | 2431 | 2487 |
| 40° | 2357 | 2425 | 2509 |
| 45° | 2316 | 2423 | 2554 |
| 50° | 2251 | 2431 | 2611 |
| 55° | 2169 | 2462 | 2684 |
| 60° | 2061 | 2489 | 2744 |
| 65° | 1904 | 2520 | 2780 |
| 70° | 1692 | 2538 | 2488 |
| 75° | 1364 | 2281 | 1990 |
| 80° | 1066 | 1599 | 1300 |
| 85° | 732 | 466 | 333 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 87.3 | 3.2 |
| 10°-20° | 250.6 | 9.1 |
| 20°-30° | 381.5 | 13.8 |
| 30°-40° | 464.7 | 16.9 |
| 40°-50° | 493.0 | 17.9 |
| 50°-60° | 465.3 | 16.9 |
| 60°-70° | 375.7 | 13.6 |
| 70°-80° | 203.8 | 7.4 |
| 80°-90° | 33.0 | 1.2 |
| 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° | 719.5 | 26.1 |
| 0°-40° | 1184.2 | 43.0 |
| 0°-60° | 2142.5 | 77.8 |
| 0°-90° | 2755.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 2755.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 923 | 923 | 923 | 923 | 923 | |
| 5° | 923 | 921 | 914 | 921 | 918 | 88 |
| 15° | 888 | 886 | 884 | 890 | 890 | 251 |
| 25° | 824 | 822 | 824 | 832 | 834 | 379 |
| 35° | 729 | 733 | 740 | 755 | 757 | 456 |
| 45° | 609 | 617 | 637 | 660 | 671 | 469 |
| 55° | 462 | 482 | 525 | 559 | 572 | 413 |
| 65° | 299 | 336 | 396 | 428 | 437 | 296 |
| 75° | 131 | 191 | 219 | 198 | 191 | 143 |
| 85° | 24 | 26 | 15 | 13 | 11 | 30 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 922.7 | 922.7 | 922.7 | 922.7 | 922.7 |
| 2.5° | 927.0 | 922.7 | 916.3 | 922.7 | 920.6 |
| 5° | 922.7 | 920.6 | 914.1 | 920.6 | 918.4 |
| 7.5° | 916.3 | 916.3 | 909.8 | 914.1 | 914.1 |
| 10° | 909.8 | 907.7 | 903.4 | 909.8 | 907.7 |
| 12.5° | 899.1 | 896.9 | 894.8 | 901.2 | 899.1 |
| 15° | 888.3 | 886.2 | 884.0 | 890.5 | 890.5 |
| 17.5° | 875.4 | 873.3 | 871.1 | 879.7 | 879.7 |
| 20° | 858.2 | 858.2 | 858.2 | 866.8 | 864.6 |
| 22.5° | 841.0 | 841.0 | 843.1 | 851.7 | 849.6 |
| 25° | 823.8 | 821.6 | 823.8 | 832.4 | 834.5 |
| 27.5° | 802.3 | 804.4 | 806.6 | 815.2 | 817.3 |
| 30° | 780.8 | 782.9 | 785.1 | 795.8 | 798.0 |
| 32.5° | 755.0 | 759.3 | 763.6 | 776.5 | 776.5 |
| 35° | 729.1 | 733.4 | 739.9 | 755.0 | 757.1 |
| 37.5° | 701.2 | 705.5 | 714.1 | 731.3 | 735.6 |
| 40° | 671.1 | 677.5 | 690.4 | 707.6 | 714.1 |
| 42.5° | 641.0 | 649.6 | 664.6 | 684.0 | 692.6 |
| 45° | 608.7 | 617.3 | 636.7 | 660.3 | 671.1 |
| 47.5° | 574.3 | 585.0 | 608.7 | 638.8 | 647.4 |
| 50° | 537.7 | 552.8 | 580.7 | 613.0 | 623.8 |
| 52.5° | 501.2 | 518.4 | 552.8 | 587.2 | 597.9 |
| 55° | 462.4 | 481.8 | 524.8 | 559.2 | 572.1 |
| 57.5° | 423.7 | 445.2 | 494.7 | 531.3 | 544.2 |
| 60° | 382.9 | 408.7 | 462.4 | 499.0 | 509.8 |
| 62.5° | 342.0 | 372.1 | 430.2 | 466.7 | 475.3 |
| 65° | 299.0 | 335.5 | 395.8 | 428.0 | 436.6 |
| 67.5° | 258.1 | 301.1 | 361.3 | 385.0 | 385.0 |
| 70° | 215.1 | 262.4 | 322.6 | 329.1 | 316.2 |
| 72.5° | 172.1 | 225.8 | 279.6 | 256.0 | 245.2 |
| 75° | 131.2 | 191.4 | 219.4 | 197.9 | 191.4 |
| 77.5° | 98.9 | 154.9 | 154.9 | 142.0 | 137.7 |
| 80° | 68.8 | 118.3 | 103.2 | 90.3 | 83.9 |
| 82.5° | 45.2 | 66.7 | 53.8 | 43.0 | 36.6 |
| 85° | 23.7 | 25.8 | 15.1 | 12.9 | 10.8 |
| 87.5° | 8.6 | 4.3 | 2.2 | 4.3 | 2.2 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)