

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: P275474

Luminaire Tested: **14CZ2-29-UNV-L82765-W2A1-U-6500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P275474
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-49)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 14CZ2-29-UNV-L82765-W2A1-U-6500K
Description: CRUZE 2.0 1x4 TUNABLE WHITE LED TROFFER WITH RIBBED LENS
Light Source: (168) 80 CRI LEDS TUNED TO 6500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3030.0 lumens
Efficiency: N/A
Efficacy: 130.8 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

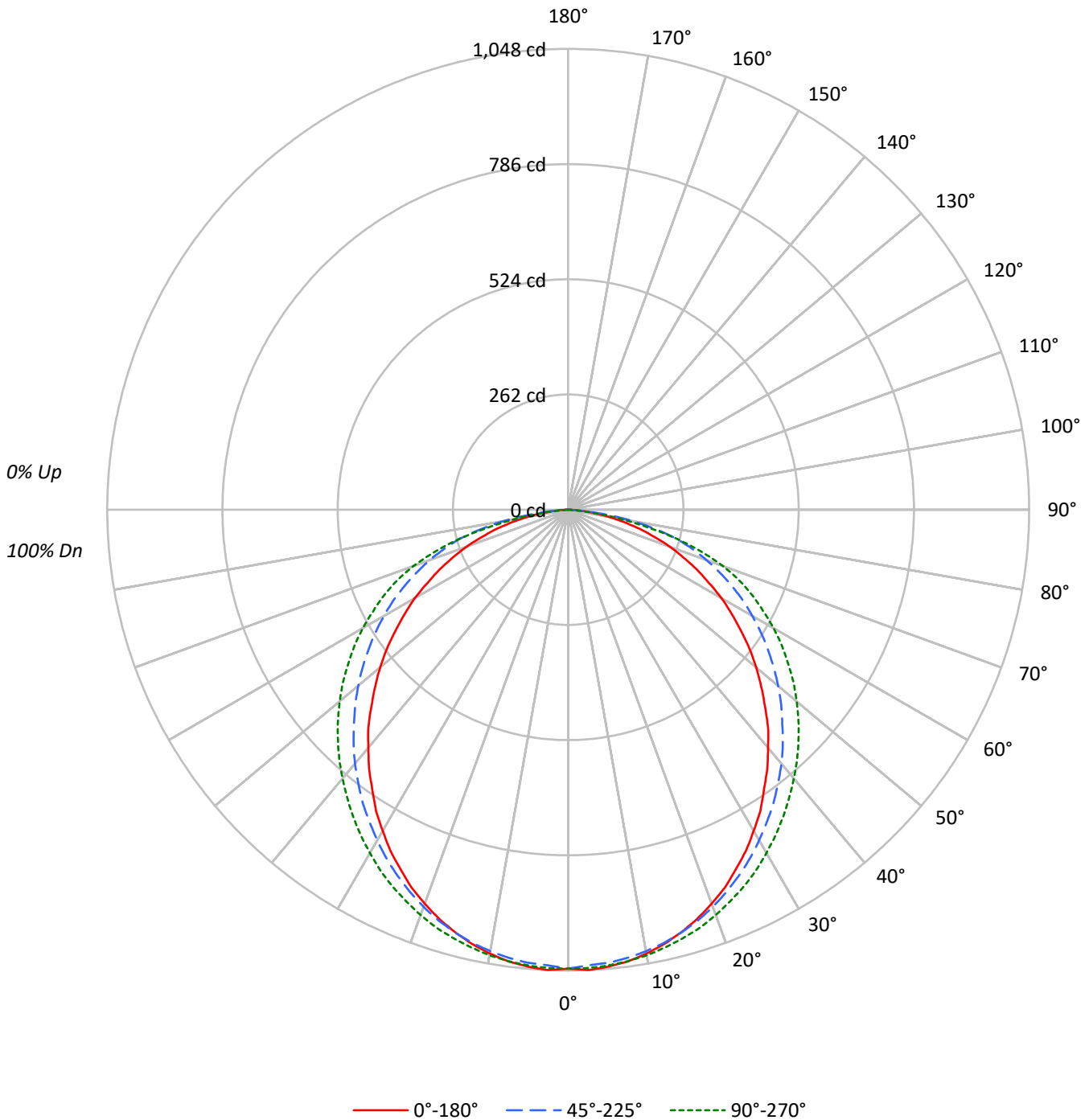
Input Watts (W): 23.157
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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 | 0 |
| RCR | | | | | | | | | | | | | | | | | | |
| 0 | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |
| 1 | 109 | 104 | 99 | 95 | 106 | 101 | 97 | 94 | 97 | 94 | 91 | 93 | 90 | 88 | 90 | 87 | 85 | 83 |
| 2 | 98 | 90 | 83 | 77 | 96 | 88 | 82 | 76 | 84 | 79 | 74 | 81 | 77 | 73 | 78 | 74 | 71 | 69 |
| 3 | 89 | 79 | 70 | 64 | 87 | 77 | 69 | 63 | 74 | 67 | 62 | 71 | 66 | 61 | 69 | 64 | 60 | 58 |
| 4 | 82 | 70 | 61 | 54 | 79 | 68 | 60 | 53 | 66 | 58 | 53 | 63 | 57 | 52 | 61 | 56 | 51 | 49 |
| 5 | 75 | 62 | 53 | 46 | 73 | 61 | 52 | 46 | 59 | 51 | 45 | 57 | 50 | 45 | 55 | 49 | 44 | 42 |
| 6 | 69 | 56 | 47 | 40 | 67 | 55 | 46 | 40 | 53 | 45 | 40 | 51 | 44 | 39 | 50 | 44 | 39 | 37 |
| 7 | 64 | 51 | 42 | 35 | 63 | 50 | 41 | 35 | 48 | 41 | 35 | 47 | 40 | 35 | 45 | 39 | 34 | 32 |
| 8 | 60 | 46 | 37 | 32 | 58 | 45 | 37 | 31 | 44 | 37 | 31 | 43 | 36 | 31 | 42 | 35 | 31 | 29 |
| 9 | 56 | 42 | 34 | 28 | 54 | 42 | 34 | 28 | 41 | 33 | 28 | 39 | 33 | 28 | 38 | 32 | 28 | 26 |
| 10 | 52 | 39 | 31 | 26 | 51 | 39 | 31 | 26 | 37 | 30 | 26 | 37 | 30 | 25 | 36 | 30 | 25 | 24 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 2809 | 2809 | 2809 |
| 5° | 2818 | 2794 | 2811 |
| 10° | 2801 | 2786 | 2812 |
| 15° | 2771 | 2773 | 2810 |
| 20° | 2730 | 2753 | 2809 |
| 25° | 2678 | 2726 | 2806 |
| 30° | 2620 | 2698 | 2801 |
| 35° | 2550 | 2674 | 2799 |
| 40° | 2483 | 2649 | 2803 |
| 45° | 2407 | 2620 | 2818 |
| 50° | 2336 | 2608 | 2837 |
| 55° | 2247 | 2599 | 2862 |
| 60° | 2167 | 2603 | 2902 |
| 65° | 2057 | 2611 | 2947 |
| 70° | 1930 | 2631 | 2945 |
| 75° | 1749 | 2655 | 2663 |
| 80° | 1435 | 2294 | 1895 |
| 85° | 1065 | 1084 | 438 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 98.8 | 3.3 |
| 10°-20° | 282.2 | 9.3 |
| 20°-30° | 425.0 | 14.0 |
| 30°-40° | 510.1 | 16.8 |
| 40°-50° | 531.6 | 17.5 |
| 50°-60° | 492.2 | 16.2 |
| 60°-70° | 397.6 | 13.1 |
| 70°-80° | 242.5 | 8.0 |
| 80°-90° | 50.1 | 1.7 |
| 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° | 806.0 | 26.6 |
| 0°-40° | 1316.1 | 43.4 |
| 0°-60° | 2339.8 | 77.2 |
| 0°-90° | 3030.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 3030.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1044 | 1044 | 1044 | 1044 | 1044 | |
| 5° | 1043 | 1040 | 1034 | 1042 | 1040 | 99 |
| 15° | 994 | 995 | 995 | 1009 | 1009 | 280 |
| 25° | 902 | 907 | 918 | 941 | 945 | 416 |
| 35° | 776 | 788 | 814 | 844 | 852 | 486 |
| 45° | 632 | 651 | 688 | 727 | 740 | 489 |
| 55° | 479 | 504 | 554 | 597 | 610 | 429 |
| 65° | 323 | 355 | 410 | 451 | 463 | 319 |
| 75° | 168 | 205 | 255 | 259 | 256 | 177 |
| 85° | 34 | 51 | 35 | 20 | 14 | 42 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1043.8 | 1043.8 | 1043.8 | 1043.8 | 1043.8 |
| 2.5° | 1047.9 | 1044.5 | 1037.1 | 1044.5 | 1043.2 |
| 5° | 1043.2 | 1040.5 | 1034.4 | 1041.8 | 1040.5 |
| 7.5° | 1036.4 | 1033.7 | 1028.3 | 1037.1 | 1035.7 |
| 10° | 1024.9 | 1023.6 | 1019.5 | 1029.7 | 1029.0 |
| 12.5° | 1011.4 | 1010.7 | 1008.7 | 1020.2 | 1019.5 |
| 15° | 994.5 | 995.2 | 995.2 | 1008.7 | 1008.7 |
| 17.5° | 975.6 | 977.0 | 979.7 | 994.5 | 996.6 |
| 20° | 953.3 | 956.0 | 961.4 | 978.3 | 981.0 |
| 22.5° | 930.3 | 932.4 | 940.5 | 960.7 | 963.4 |
| 25° | 902.0 | 907.4 | 918.2 | 941.1 | 945.2 |
| 27.5° | 874.9 | 879.7 | 894.5 | 918.2 | 924.9 |
| 30° | 843.2 | 850.6 | 868.2 | 893.9 | 901.3 |
| 32.5° | 812.8 | 820.9 | 841.2 | 870.9 | 877.6 |
| 35° | 776.3 | 788.5 | 814.1 | 843.9 | 852.0 |
| 37.5° | 743.2 | 754.7 | 783.7 | 816.2 | 825.6 |
| 40° | 706.7 | 720.9 | 754.0 | 788.5 | 797.9 |
| 42.5° | 672.9 | 686.4 | 722.2 | 757.4 | 770.2 |
| 45° | 632.4 | 651.3 | 688.5 | 727.0 | 740.5 |
| 47.5° | 595.2 | 614.1 | 656.7 | 697.9 | 710.1 |
| 50° | 558.1 | 578.3 | 622.9 | 665.5 | 677.7 |
| 52.5° | 519.6 | 541.2 | 589.1 | 631.7 | 645.9 |
| 55° | 479.0 | 504.0 | 554.0 | 597.3 | 610.1 |
| 57.5° | 440.5 | 466.2 | 519.6 | 563.5 | 576.3 |
| 60° | 402.7 | 429.0 | 483.7 | 525.6 | 539.2 |
| 62.5° | 360.8 | 391.9 | 448.6 | 489.8 | 500.0 |
| 65° | 323.0 | 354.7 | 410.1 | 451.3 | 462.8 |
| 67.5° | 283.1 | 317.5 | 372.9 | 410.8 | 421.6 |
| 70° | 245.3 | 281.1 | 334.4 | 369.6 | 374.3 |
| 72.5° | 204.7 | 241.2 | 295.2 | 317.5 | 317.5 |
| 75° | 168.2 | 205.4 | 255.4 | 259.4 | 256.1 |
| 77.5° | 128.4 | 169.6 | 202.0 | 193.9 | 185.8 |
| 80° | 92.6 | 133.1 | 148.0 | 133.1 | 122.3 |
| 82.5° | 62.2 | 96.6 | 89.2 | 70.9 | 62.8 |
| 85° | 34.5 | 51.3 | 35.1 | 19.6 | 14.2 |
| 87.5° | 12.8 | 11.5 | 3.4 | 3.4 | 3.4 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)