

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: P275567

Luminaire Tested: **14CZ2-29-S-UNV-L83050-W2A1-U-3500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P275567
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-40)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 14CZ2-29-S-UNV-L83050-W2A1-U-3500K
Description: CRUZE 2.0 1x4 TUNABLE WHITE LED TROFFER
WITH SMOOTH LENS
Light Source: (168) 80 CRI LEDS TUNED TO 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2929.0 lumens
Efficiency: N/A
Efficacy: 132.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.26 / 1.36
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

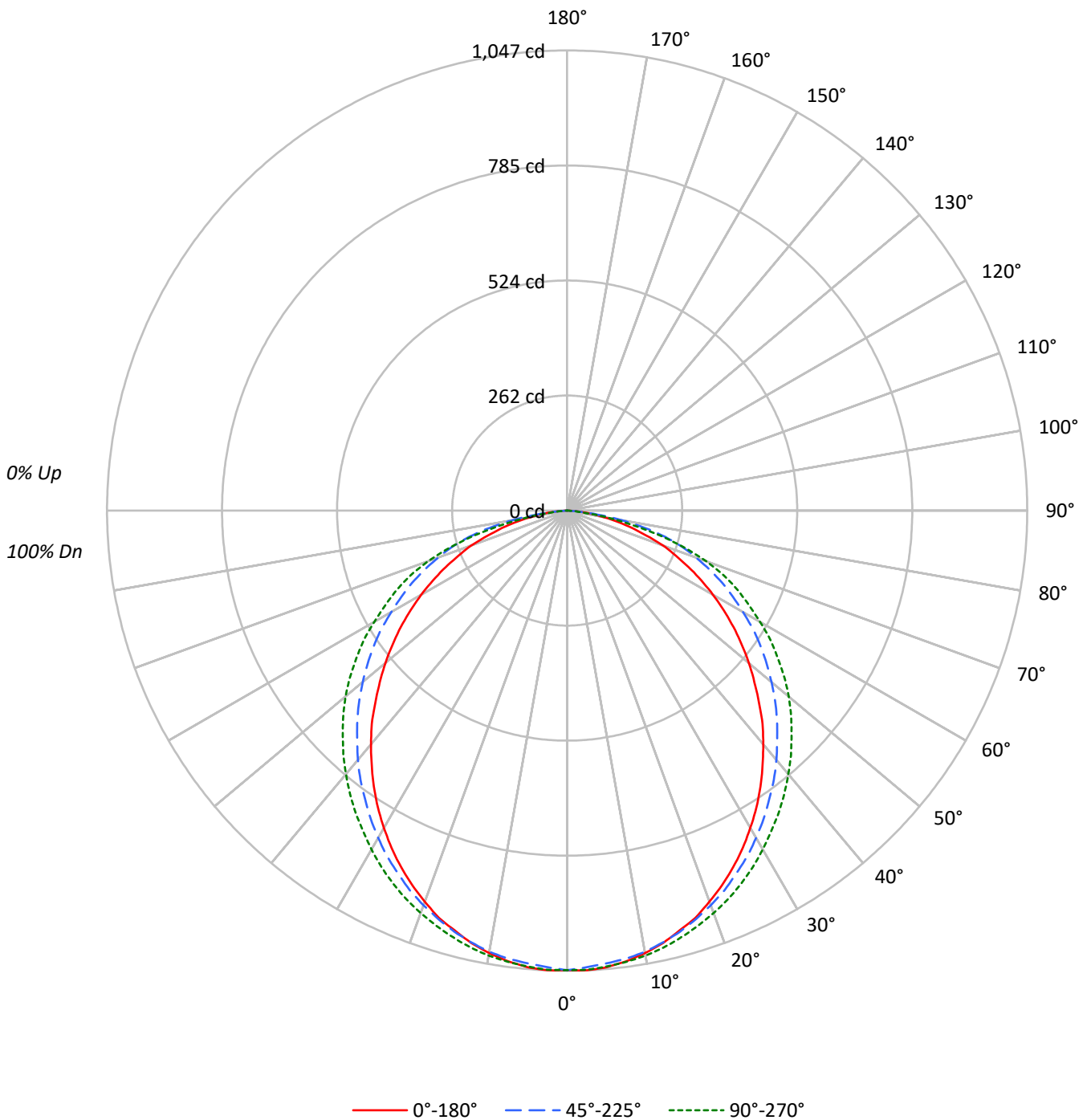
Input Watts (W): 22.134
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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 | 100 | 96 | 106 | 102 | 98 | 94 | 97 | 94 | 91 | 94 | 91 | 89 | 90 | 88 | 86 | 84 |
| 2 | 99 | 90 | 84 | 78 | 96 | 89 | 82 | 77 | 85 | 80 | 75 | 82 | 77 | 73 | 79 | 75 | 72 | 70 |
| 3 | 90 | 79 | 71 | 65 | 87 | 78 | 70 | 64 | 75 | 68 | 63 | 72 | 66 | 62 | 69 | 65 | 61 | 58 |
| 4 | 82 | 70 | 61 | 55 | 80 | 69 | 61 | 54 | 66 | 59 | 53 | 64 | 58 | 53 | 62 | 56 | 52 | 50 |
| 5 | 76 | 63 | 54 | 47 | 74 | 62 | 53 | 47 | 59 | 52 | 46 | 57 | 51 | 46 | 56 | 50 | 45 | 43 |
| 6 | 70 | 56 | 47 | 41 | 68 | 55 | 47 | 41 | 54 | 46 | 40 | 52 | 45 | 40 | 50 | 44 | 40 | 38 |
| 7 | 65 | 51 | 42 | 36 | 63 | 50 | 42 | 36 | 49 | 41 | 36 | 47 | 41 | 35 | 46 | 40 | 35 | 33 |
| 8 | 60 | 47 | 38 | 32 | 59 | 46 | 38 | 32 | 45 | 37 | 32 | 43 | 37 | 32 | 42 | 36 | 32 | 30 |
| 9 | 56 | 43 | 35 | 29 | 55 | 42 | 34 | 29 | 41 | 34 | 29 | 40 | 33 | 29 | 39 | 33 | 28 | 27 |
| 10 | 53 | 40 | 32 | 26 | 52 | 39 | 31 | 26 | 38 | 31 | 26 | 37 | 31 | 26 | 36 | 30 | 26 | 24 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 2814 | 2814 | 2814 |
| 5° | 2817 | 2793 | 2813 |
| 10° | 2794 | 2786 | 2810 |
| 15° | 2755 | 2763 | 2800 |
| 20° | 2712 | 2737 | 2790 |
| 25° | 2656 | 2703 | 2781 |
| 30° | 2590 | 2671 | 2766 |
| 35° | 2519 | 2633 | 2757 |
| 40° | 2439 | 2602 | 2750 |
| 45° | 2349 | 2570 | 2747 |
| 50° | 2262 | 2541 | 2754 |
| 55° | 2167 | 2521 | 2746 |
| 60° | 2063 | 2485 | 2728 |
| 65° | 1942 | 2478 | 2728 |
| 70° | 1828 | 2456 | 2651 |
| 75° | 1586 | 2401 | 2264 |
| 80° | 1283 | 1936 | 1508 |
| 85° | 852 | 673 | 448 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 98.7 | 3.4 |
| 10°-20° | 281.0 | 9.6 |
| 20°-30° | 421.4 | 14.4 |
| 30°-40° | 502.7 | 17.2 |
| 40°-50° | 519.7 | 17.7 |
| 50°-60° | 474.5 | 16.2 |
| 60°-70° | 373.4 | 12.7 |
| 70°-80° | 217.4 | 7.4 |
| 80°-90° | 40.0 | 1.4 |
| 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° | 801.1 | 27.4 |
| 0°-40° | 1303.9 | 44.5 |
| 0°-60° | 2298.1 | 78.5 |
| 0°-90° | 2929.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 2929.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1046 | 1046 | 1046 | 1046 | 1046 | |
| 5° | 1043 | 1040 | 1034 | 1043 | 1041 | 99 |
| 15° | 989 | 990 | 992 | 1005 | 1005 | 279 |
| 25° | 895 | 899 | 910 | 932 | 937 | 412 |
| 35° | 767 | 777 | 802 | 832 | 839 | 479 |
| 45° | 617 | 638 | 675 | 713 | 722 | 477 |
| 55° | 462 | 486 | 537 | 576 | 585 | 413 |
| 65° | 305 | 337 | 389 | 420 | 428 | 303 |
| 75° | 152 | 189 | 231 | 226 | 218 | 162 |
| 85° | 28 | 39 | 22 | 17 | 14 | 36 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1045.6 | 1045.6 | 1045.6 | 1045.6 | 1045.6 |
| 2.5° | 1047.1 | 1044.2 | 1039.8 | 1047.1 | 1045.6 |
| 5° | 1042.7 | 1039.8 | 1034.0 | 1042.7 | 1041.2 |
| 7.5° | 1034.0 | 1031.1 | 1028.2 | 1036.9 | 1035.4 |
| 10° | 1022.4 | 1020.9 | 1019.5 | 1029.6 | 1028.2 |
| 12.5° | 1007.8 | 1007.8 | 1006.4 | 1018.0 | 1018.0 |
| 15° | 989.0 | 990.4 | 991.9 | 1004.9 | 1004.9 |
| 17.5° | 971.5 | 970.1 | 974.4 | 989.0 | 990.4 |
| 20° | 946.9 | 949.8 | 955.6 | 973.0 | 974.4 |
| 22.5° | 922.2 | 925.1 | 935.2 | 952.7 | 957.0 |
| 25° | 894.6 | 898.9 | 910.5 | 932.3 | 936.7 |
| 27.5° | 865.5 | 871.3 | 887.3 | 910.5 | 914.9 |
| 30° | 833.6 | 842.3 | 859.7 | 885.9 | 890.2 |
| 32.5° | 801.6 | 810.3 | 832.1 | 858.3 | 864.1 |
| 35° | 766.8 | 776.9 | 801.6 | 832.1 | 839.4 |
| 37.5° | 730.5 | 743.5 | 772.6 | 803.1 | 811.8 |
| 40° | 694.2 | 708.7 | 740.6 | 772.6 | 782.8 |
| 42.5° | 657.9 | 672.4 | 707.2 | 743.5 | 753.7 |
| 45° | 617.2 | 637.5 | 675.3 | 713.0 | 721.8 |
| 47.5° | 578.0 | 599.8 | 641.9 | 679.6 | 691.3 |
| 50° | 540.2 | 562.0 | 607.0 | 646.2 | 657.9 |
| 52.5° | 501.0 | 524.3 | 572.2 | 612.8 | 623.0 |
| 55° | 461.8 | 486.5 | 537.3 | 576.5 | 585.2 |
| 57.5° | 422.6 | 448.7 | 501.0 | 538.8 | 548.9 |
| 60° | 383.4 | 411.0 | 461.8 | 499.6 | 506.8 |
| 62.5° | 344.2 | 373.2 | 425.5 | 458.9 | 466.2 |
| 65° | 305.0 | 336.9 | 389.2 | 419.7 | 428.4 |
| 67.5° | 267.2 | 299.2 | 350.0 | 379.0 | 386.3 |
| 70° | 232.4 | 261.4 | 312.2 | 334.0 | 336.9 |
| 72.5° | 188.8 | 225.1 | 274.5 | 286.1 | 278.8 |
| 75° | 152.5 | 188.8 | 230.9 | 226.5 | 217.8 |
| 77.5° | 116.2 | 152.5 | 180.1 | 165.6 | 153.9 |
| 80° | 82.8 | 119.1 | 124.9 | 103.1 | 97.3 |
| 82.5° | 53.7 | 82.8 | 69.7 | 53.7 | 43.6 |
| 85° | 27.6 | 39.2 | 21.8 | 17.4 | 14.5 |
| 87.5° | 8.7 | 5.8 | 2.9 | 2.9 | 1.5 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)