

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: P275771

Luminaire Tested: **14CZ2-35-RDP-UNV-L93050-W2A1-U-4000K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P275771
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: 14CZ2-35-RDP-UNV-L93050-W2A1-U-4000K
Description: CRUZE 2.0 1x4 TUNABLE WHITE LED TROFFER WITH RDP LENS
Light Source: (168) 90 CRI LEDS TUNED TO 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2054.0 lumens
Efficiency: N/A
Efficacy: 72.9 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

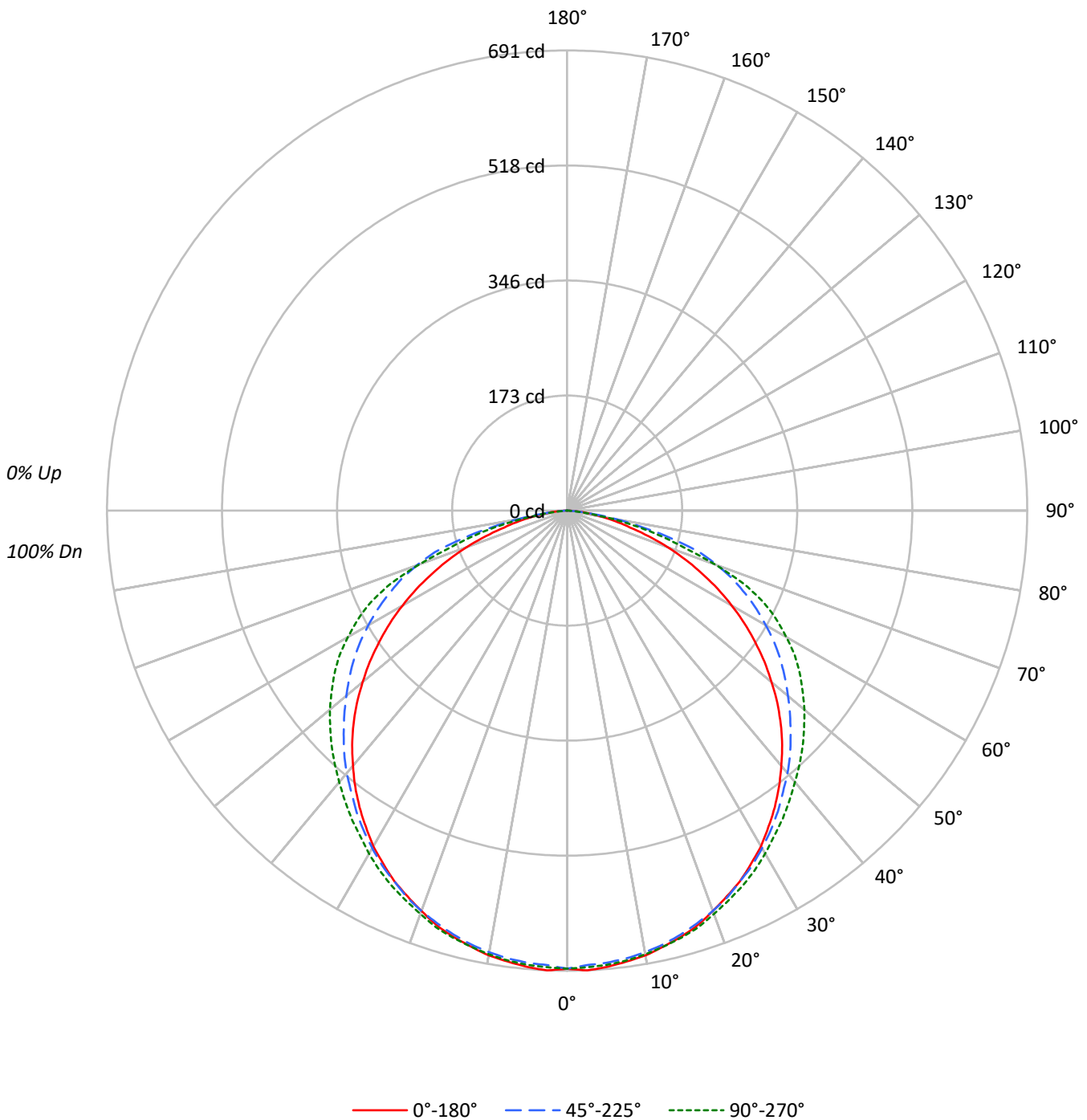
Input Watts (W): 28.179
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 1851 | 1851 | 1851 |
| 5° | 1858 | 1841 | 1850 |
| 10° | 1853 | 1840 | 1849 |
| 15° | 1845 | 1836 | 1850 |
| 20° | 1832 | 1832 | 1846 |
| 25° | 1824 | 1824 | 1847 |
| 30° | 1809 | 1819 | 1849 |
| 35° | 1786 | 1812 | 1854 |
| 40° | 1757 | 1808 | 1870 |
| 45° | 1727 | 1807 | 1904 |
| 50° | 1678 | 1813 | 1947 |
| 55° | 1618 | 1836 | 2001 |
| 60° | 1536 | 1856 | 2045 |
| 65° | 1419 | 1879 | 2073 |
| 70° | 1262 | 1892 | 1854 |
| 75° | 1017 | 1701 | 1484 |
| 80° | 795 | 1193 | 969 |
| 85° | 543 | 346 | 247 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 65.1 | 3.2 |
| 10°-20° | 186.8 | 9.1 |
| 20°-30° | 284.5 | 13.8 |
| 30°-40° | 346.5 | 16.9 |
| 40°-50° | 367.6 | 17.9 |
| 50°-60° | 346.9 | 16.9 |
| 60°-70° | 280.1 | 13.6 |
| 70°-80° | 151.9 | 7.4 |
| 80°-90° | 24.6 | 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° | 536.4 | 26.1 |
| 0°-40° | 882.9 | 43.0 |
| 0°-60° | 1597.4 | 77.8 |
| 0°-90° | 2054.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 2054.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 688 | 688 | 688 | 688 | 688 | |
| 5° | 688 | 686 | 682 | 686 | 685 | 65 |
| 15° | 662 | 661 | 659 | 664 | 664 | 187 |
| 25° | 614 | 613 | 614 | 621 | 622 | 283 |
| 35° | 544 | 547 | 552 | 563 | 564 | 340 |
| 45° | 454 | 460 | 475 | 492 | 500 | 349 |
| 55° | 345 | 359 | 391 | 417 | 427 | 308 |
| 65° | 223 | 250 | 295 | 319 | 326 | 221 |
| 75° | 98 | 143 | 164 | 148 | 143 | 107 |
| 85° | 18 | 19 | 11 | 10 | 8 | 23 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 687.9 | 687.9 | 687.9 | 687.9 | 687.9 |
| 2.5° | 691.1 | 687.9 | 683.1 | 687.9 | 686.3 |
| 5° | 687.9 | 686.3 | 681.5 | 686.3 | 684.7 |
| 7.5° | 683.1 | 683.1 | 678.3 | 681.5 | 681.5 |
| 10° | 678.3 | 676.7 | 673.5 | 678.3 | 676.7 |
| 12.5° | 670.3 | 668.7 | 667.1 | 671.9 | 670.3 |
| 15° | 662.3 | 660.7 | 659.1 | 663.9 | 663.9 |
| 17.5° | 652.7 | 651.1 | 649.5 | 655.9 | 655.9 |
| 20° | 639.8 | 639.8 | 639.8 | 646.2 | 644.6 |
| 22.5° | 627.0 | 627.0 | 628.6 | 635.0 | 633.4 |
| 25° | 614.2 | 612.6 | 614.2 | 620.6 | 622.2 |
| 27.5° | 598.1 | 599.7 | 601.3 | 607.8 | 609.4 |
| 30° | 582.1 | 583.7 | 585.3 | 593.3 | 594.9 |
| 32.5° | 562.9 | 566.1 | 569.3 | 578.9 | 578.9 |
| 35° | 543.6 | 546.8 | 551.6 | 562.9 | 564.5 |
| 37.5° | 522.8 | 526.0 | 532.4 | 545.2 | 548.4 |
| 40° | 500.3 | 505.1 | 514.8 | 527.6 | 532.4 |
| 42.5° | 477.9 | 484.3 | 495.5 | 509.9 | 516.4 |
| 45° | 453.8 | 460.2 | 474.7 | 492.3 | 500.3 |
| 47.5° | 428.2 | 436.2 | 453.8 | 476.3 | 482.7 |
| 50° | 400.9 | 412.1 | 433.0 | 457.0 | 465.0 |
| 52.5° | 373.6 | 386.5 | 412.1 | 437.8 | 445.8 |
| 55° | 344.8 | 359.2 | 391.3 | 416.9 | 426.6 |
| 57.5° | 315.9 | 331.9 | 368.8 | 396.1 | 405.7 |
| 60° | 285.4 | 304.7 | 344.8 | 372.0 | 380.0 |
| 62.5° | 255.0 | 277.4 | 320.7 | 348.0 | 354.4 |
| 65° | 222.9 | 250.2 | 295.1 | 319.1 | 325.5 |
| 67.5° | 192.4 | 224.5 | 269.4 | 287.0 | 287.0 |
| 70° | 160.4 | 195.6 | 240.5 | 245.3 | 235.7 |
| 72.5° | 128.3 | 168.4 | 208.5 | 190.8 | 182.8 |
| 75° | 97.8 | 142.7 | 163.6 | 147.5 | 142.7 |
| 77.5° | 73.8 | 115.5 | 115.5 | 105.8 | 102.6 |
| 80° | 51.3 | 88.2 | 77.0 | 67.4 | 62.5 |
| 82.5° | 33.7 | 49.7 | 40.1 | 32.1 | 27.3 |
| 85° | 17.6 | 19.2 | 11.2 | 9.6 | 8.0 |
| 87.5° | 6.4 | 3.2 | 1.6 | 3.2 | 1.6 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)