

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: P275424

Luminaire Tested: **14CZ2-25-UNV-L93050-W2A1-U-3500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P275424
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: 14CZ2-25-UNV-L93050-W2A1-U-3500K
Description: CRUZE 2.0 1x4 TUNABLE WHITE LED TROFFER WITH RIBBED LENS
Light Source: (168) 90 CRI LEDS TUNED TO 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2062.0 lumens
Efficiency: N/A
Efficacy: 110.9 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

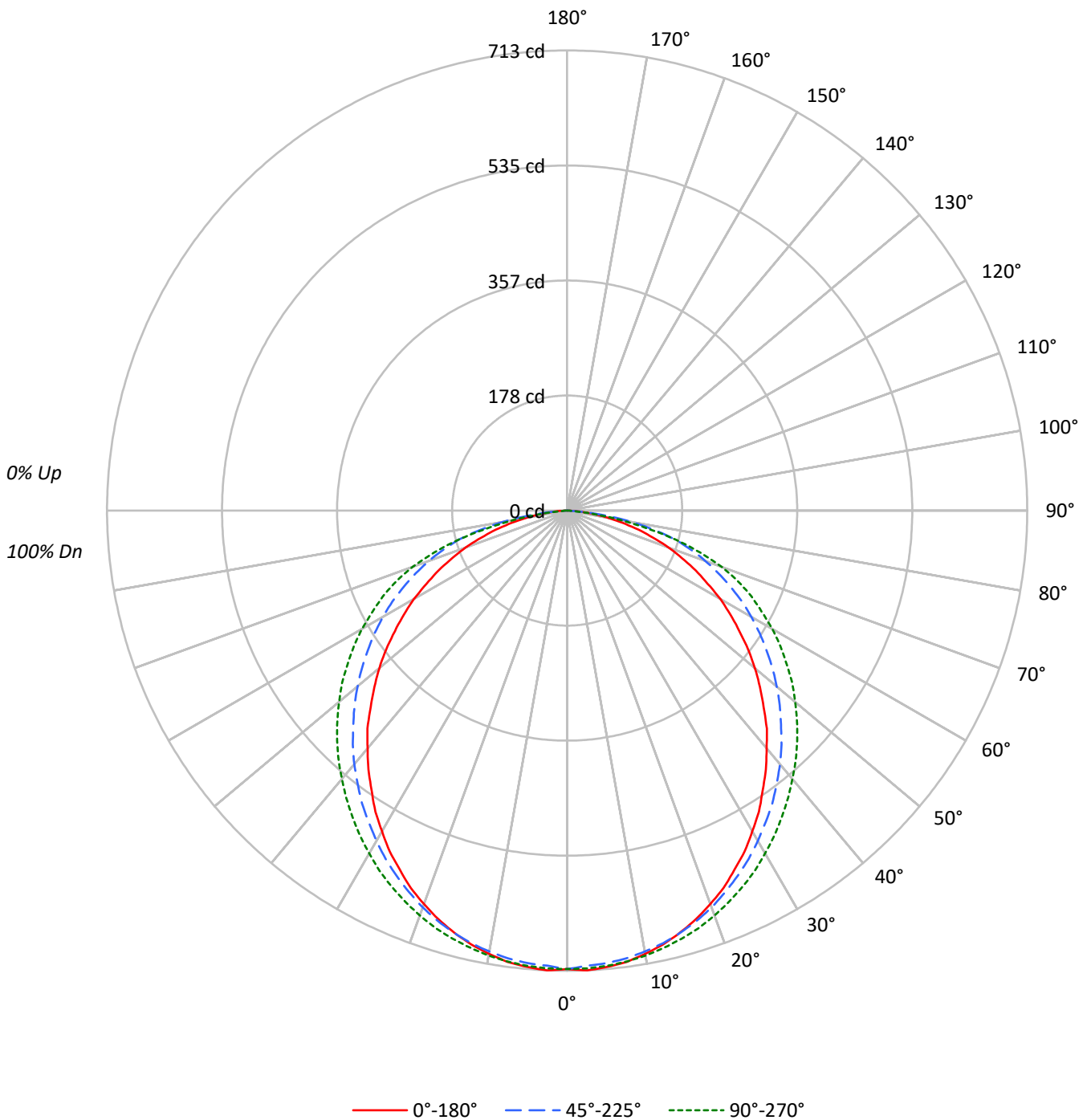
Input Watts (W): 18.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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° | 1912 | 1912 | 1912 |
| 5° | 1918 | 1901 | 1913 |
| 10° | 1906 | 1896 | 1914 |
| 15° | 1886 | 1887 | 1913 |
| 20° | 1858 | 1874 | 1912 |
| 25° | 1822 | 1855 | 1910 |
| 30° | 1783 | 1836 | 1906 |
| 35° | 1736 | 1820 | 1905 |
| 40° | 1689 | 1802 | 1907 |
| 45° | 1638 | 1783 | 1918 |
| 50° | 1590 | 1775 | 1931 |
| 55° | 1529 | 1769 | 1948 |
| 60° | 1475 | 1772 | 1975 |
| 65° | 1400 | 1777 | 2006 |
| 70° | 1313 | 1791 | 2004 |
| 75° | 1190 | 1807 | 1812 |
| 80° | 976 | 1561 | 1289 |
| 85° | 722 | 738 | 299 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 67.2 | 3.3 |
| 10°-20° | 192.0 | 9.3 |
| 20°-30° | 289.3 | 14.0 |
| 30°-40° | 347.1 | 16.8 |
| 40°-50° | 361.8 | 17.5 |
| 50°-60° | 334.9 | 16.2 |
| 60°-70° | 270.6 | 13.1 |
| 70°-80° | 165.0 | 8.0 |
| 80°-90° | 34.1 | 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° | 548.5 | 26.6 |
| 0°-40° | 895.6 | 43.4 |
| 0°-60° | 1592.3 | 77.2 |
| 0°-90° | 2062.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 2062.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 710 | 710 | 710 | 710 | 710 | |
| 5° | 710 | 708 | 704 | 709 | 708 | 67 |
| 15° | 677 | 677 | 677 | 686 | 686 | 191 |
| 25° | 614 | 618 | 625 | 640 | 643 | 283 |
| 35° | 528 | 537 | 554 | 574 | 580 | 331 |
| 45° | 430 | 443 | 468 | 495 | 504 | 333 |
| 55° | 326 | 343 | 377 | 406 | 415 | 292 |
| 65° | 220 | 241 | 279 | 307 | 315 | 217 |
| 75° | 114 | 140 | 174 | 177 | 174 | 120 |
| 85° | 23 | 35 | 24 | 13 | 10 | 29 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 710.4 | 710.4 | 710.4 | 710.4 | 710.4 |
| 2.5° | 713.1 | 710.8 | 705.8 | 710.8 | 709.9 |
| 5° | 709.9 | 708.1 | 703.9 | 709.0 | 708.1 |
| 7.5° | 705.3 | 703.5 | 699.8 | 705.8 | 704.8 |
| 10° | 697.5 | 696.6 | 693.8 | 700.7 | 700.3 |
| 12.5° | 688.3 | 687.8 | 686.5 | 694.3 | 693.8 |
| 15° | 676.8 | 677.3 | 677.3 | 686.5 | 686.5 |
| 17.5° | 663.9 | 664.8 | 666.7 | 676.8 | 678.2 |
| 20° | 648.8 | 650.6 | 654.3 | 665.8 | 667.6 |
| 22.5° | 633.1 | 634.5 | 640.0 | 653.8 | 655.7 |
| 25° | 613.8 | 617.5 | 624.8 | 640.5 | 643.2 |
| 27.5° | 595.4 | 598.6 | 608.8 | 624.8 | 629.4 |
| 30° | 573.8 | 578.9 | 590.8 | 608.3 | 613.4 |
| 32.5° | 553.1 | 558.6 | 572.4 | 592.7 | 597.3 |
| 35° | 528.3 | 536.6 | 554.0 | 574.3 | 579.8 |
| 37.5° | 505.8 | 513.6 | 533.3 | 555.4 | 561.9 |
| 40° | 480.9 | 490.6 | 513.1 | 536.6 | 543.0 |
| 42.5° | 457.9 | 467.1 | 491.5 | 515.4 | 524.2 |
| 45° | 430.4 | 443.2 | 468.5 | 494.7 | 503.9 |
| 47.5° | 405.1 | 417.9 | 446.9 | 475.0 | 483.2 |
| 50° | 379.8 | 393.6 | 423.9 | 452.9 | 461.2 |
| 52.5° | 353.6 | 368.3 | 400.9 | 429.9 | 439.6 |
| 55° | 326.0 | 343.0 | 377.0 | 406.4 | 415.2 |
| 57.5° | 299.8 | 317.3 | 353.6 | 383.5 | 392.2 |
| 60° | 274.0 | 292.0 | 329.2 | 357.7 | 366.9 |
| 62.5° | 245.5 | 266.7 | 305.3 | 333.3 | 340.2 |
| 65° | 219.8 | 241.4 | 279.1 | 307.1 | 315.0 |
| 67.5° | 192.6 | 216.1 | 253.8 | 279.5 | 286.9 |
| 70° | 166.9 | 191.3 | 227.6 | 251.5 | 254.7 |
| 72.5° | 139.3 | 164.1 | 200.9 | 216.1 | 216.1 |
| 75° | 114.5 | 139.8 | 173.8 | 176.6 | 174.3 |
| 77.5° | 87.4 | 115.4 | 137.5 | 132.0 | 126.4 |
| 80° | 63.0 | 90.6 | 100.7 | 90.6 | 83.2 |
| 82.5° | 42.3 | 65.7 | 60.7 | 48.3 | 42.8 |
| 85° | 23.4 | 34.9 | 23.9 | 13.3 | 9.7 |
| 87.5° | 8.7 | 7.8 | 2.3 | 2.3 | 2.3 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)