

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: P275808

Luminaire Tested: **14CZ2-29-RDP-UNV-L82765-W2A1-U-5500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P275808
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: 14CZ2-29-RDP-UNV-L82765-W2A1-U-5500K
Description: CRUZE 2.0 1x4 TUNABLE WHITE LED TROFFER WITH RDP LENS
Light Source: (168) 80 CRI LEDS TUNED TO 5500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1934.0 lumens
Efficiency: N/A
Efficacy: 84.9 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

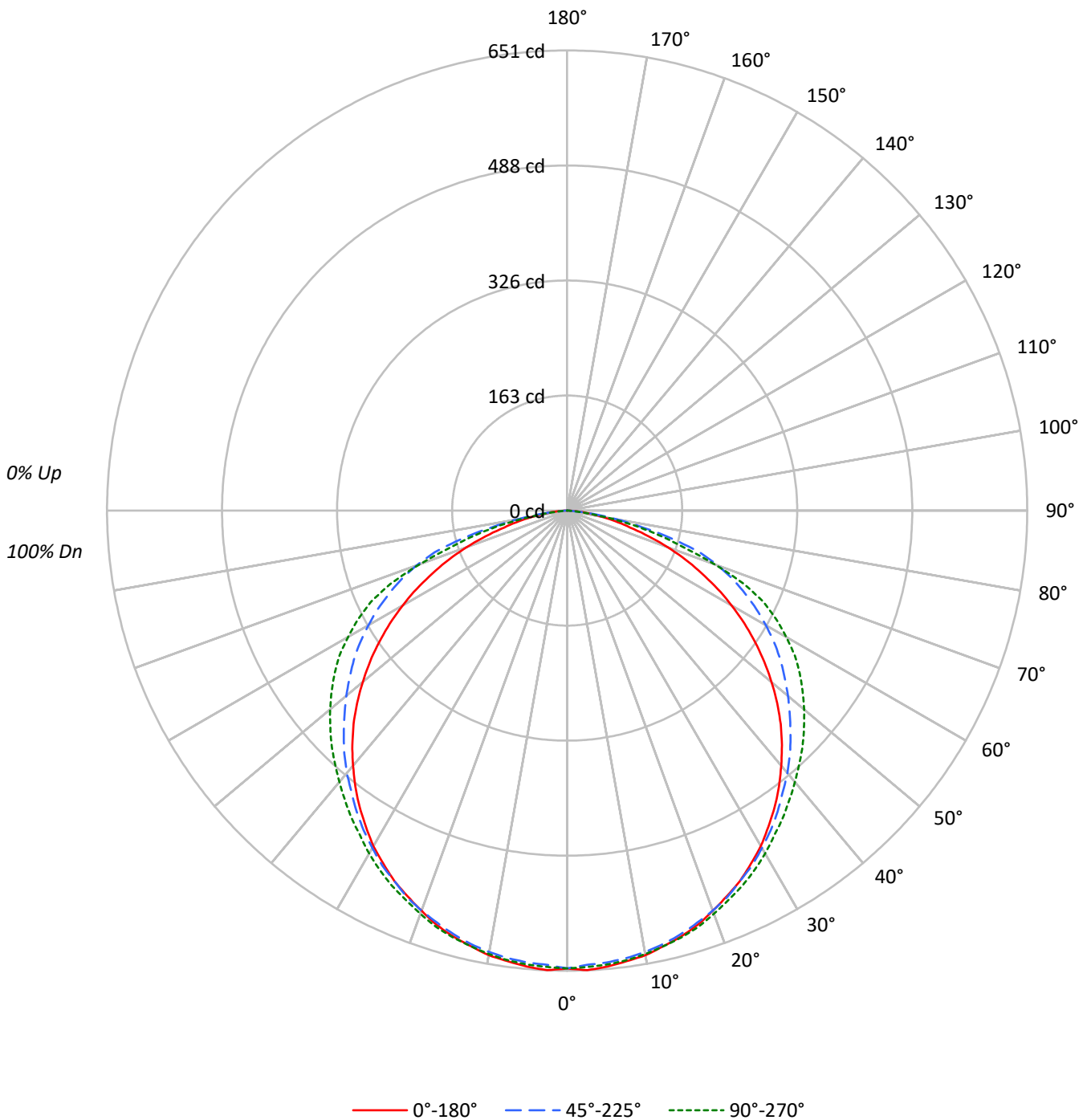
Input Watts (W): 22.785
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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° | 1743 | 1743 | 1743 |
| 5° | 1750 | 1733 | 1742 |
| 10° | 1745 | 1733 | 1741 |
| 15° | 1737 | 1729 | 1741 |
| 20° | 1725 | 1725 | 1738 |
| 25° | 1717 | 1717 | 1739 |
| 30° | 1703 | 1712 | 1741 |
| 35° | 1682 | 1706 | 1746 |
| 40° | 1655 | 1703 | 1761 |
| 45° | 1626 | 1701 | 1793 |
| 50° | 1580 | 1707 | 1833 |
| 55° | 1523 | 1728 | 1884 |
| 60° | 1447 | 1747 | 1926 |
| 65° | 1337 | 1769 | 1952 |
| 70° | 1188 | 1782 | 1747 |
| 75° | 958 | 1601 | 1397 |
| 80° | 748 | 1124 | 913 |
| 85° | 513 | 327 | 232 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 61.3 | 3.2 |
| 10°-20° | 175.9 | 9.1 |
| 20°-30° | 267.8 | 13.8 |
| 30°-40° | 326.2 | 16.9 |
| 40°-50° | 346.1 | 17.9 |
| 50°-60° | 326.6 | 16.9 |
| 60°-70° | 263.7 | 13.6 |
| 70°-80° | 143.1 | 7.4 |
| 80°-90° | 23.1 | 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° | 505.0 | 26.1 |
| 0°-40° | 831.3 | 43.0 |
| 0°-60° | 1504.0 | 77.8 |
| 0°-90° | 1934.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1934.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 648 | 648 | 648 | 648 | 648 | |
| 5° | 648 | 646 | 642 | 646 | 645 | 62 |
| 15° | 624 | 622 | 621 | 625 | 625 | 176 |
| 25° | 578 | 577 | 578 | 584 | 586 | 266 |
| 35° | 512 | 515 | 519 | 530 | 532 | 320 |
| 45° | 427 | 433 | 447 | 464 | 471 | 329 |
| 55° | 325 | 338 | 368 | 393 | 402 | 290 |
| 65° | 210 | 236 | 278 | 300 | 306 | 208 |
| 75° | 92 | 134 | 154 | 139 | 134 | 101 |
| 85° | 17 | 18 | 11 | 9 | 8 | 21 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 647.7 | 647.7 | 647.7 | 647.7 | 647.7 |
| 2.5° | 650.8 | 647.7 | 643.2 | 647.7 | 646.2 |
| 5° | 647.7 | 646.2 | 641.7 | 646.2 | 644.7 |
| 7.5° | 643.2 | 643.2 | 638.7 | 641.7 | 641.7 |
| 10° | 638.7 | 637.2 | 634.2 | 638.7 | 637.2 |
| 12.5° | 631.1 | 629.6 | 628.1 | 632.6 | 631.1 |
| 15° | 623.6 | 622.1 | 620.6 | 625.1 | 625.1 |
| 17.5° | 614.5 | 613.0 | 611.5 | 617.5 | 617.5 |
| 20° | 602.4 | 602.4 | 602.4 | 608.5 | 607.0 |
| 22.5° | 590.4 | 590.4 | 591.9 | 597.9 | 596.4 |
| 25° | 578.3 | 576.8 | 578.3 | 584.3 | 585.8 |
| 27.5° | 563.2 | 564.7 | 566.2 | 572.3 | 573.8 |
| 30° | 548.1 | 549.6 | 551.1 | 558.7 | 560.2 |
| 32.5° | 530.0 | 533.0 | 536.0 | 545.1 | 545.1 |
| 35° | 511.9 | 514.9 | 519.4 | 530.0 | 531.5 |
| 37.5° | 492.2 | 495.2 | 501.3 | 513.4 | 516.4 |
| 40° | 471.1 | 475.6 | 484.7 | 496.8 | 501.3 |
| 42.5° | 449.9 | 456.0 | 466.6 | 480.1 | 486.2 |
| 45° | 427.3 | 433.3 | 446.9 | 463.5 | 471.1 |
| 47.5° | 403.1 | 410.7 | 427.3 | 448.4 | 454.5 |
| 50° | 377.5 | 388.0 | 407.7 | 430.3 | 437.9 |
| 52.5° | 351.8 | 363.9 | 388.0 | 412.2 | 419.8 |
| 55° | 324.6 | 338.2 | 368.4 | 392.6 | 401.6 |
| 57.5° | 297.4 | 312.5 | 347.3 | 372.9 | 382.0 |
| 60° | 268.8 | 286.9 | 324.6 | 350.3 | 357.8 |
| 62.5° | 240.1 | 261.2 | 302.0 | 327.6 | 333.7 |
| 65° | 209.9 | 235.5 | 277.8 | 300.5 | 306.5 |
| 67.5° | 181.2 | 211.4 | 253.7 | 270.3 | 270.3 |
| 70° | 151.0 | 184.2 | 226.5 | 231.0 | 222.0 |
| 72.5° | 120.8 | 158.5 | 196.3 | 179.7 | 172.1 |
| 75° | 92.1 | 134.4 | 154.0 | 138.9 | 134.4 |
| 77.5° | 69.5 | 108.7 | 108.7 | 99.7 | 96.6 |
| 80° | 48.3 | 83.0 | 72.5 | 63.4 | 58.9 |
| 82.5° | 31.7 | 46.8 | 37.7 | 30.2 | 25.7 |
| 85° | 16.6 | 18.1 | 10.6 | 9.1 | 7.5 |
| 87.5° | 6.0 | 3.0 | 1.5 | 3.0 | 1.5 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)