

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: P275735

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P275735
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-L83050-W2A1-U-3500K
Description: CRUZE 2.0 1x4 TUNABLE WHITE LED TROFFER WITH RDP LENS
Light Source: (168) 80 CRI LEDS TUNED TO 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1860.0 lumens
Efficiency: N/A
Efficacy: 84.0 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.28 / 1.4
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

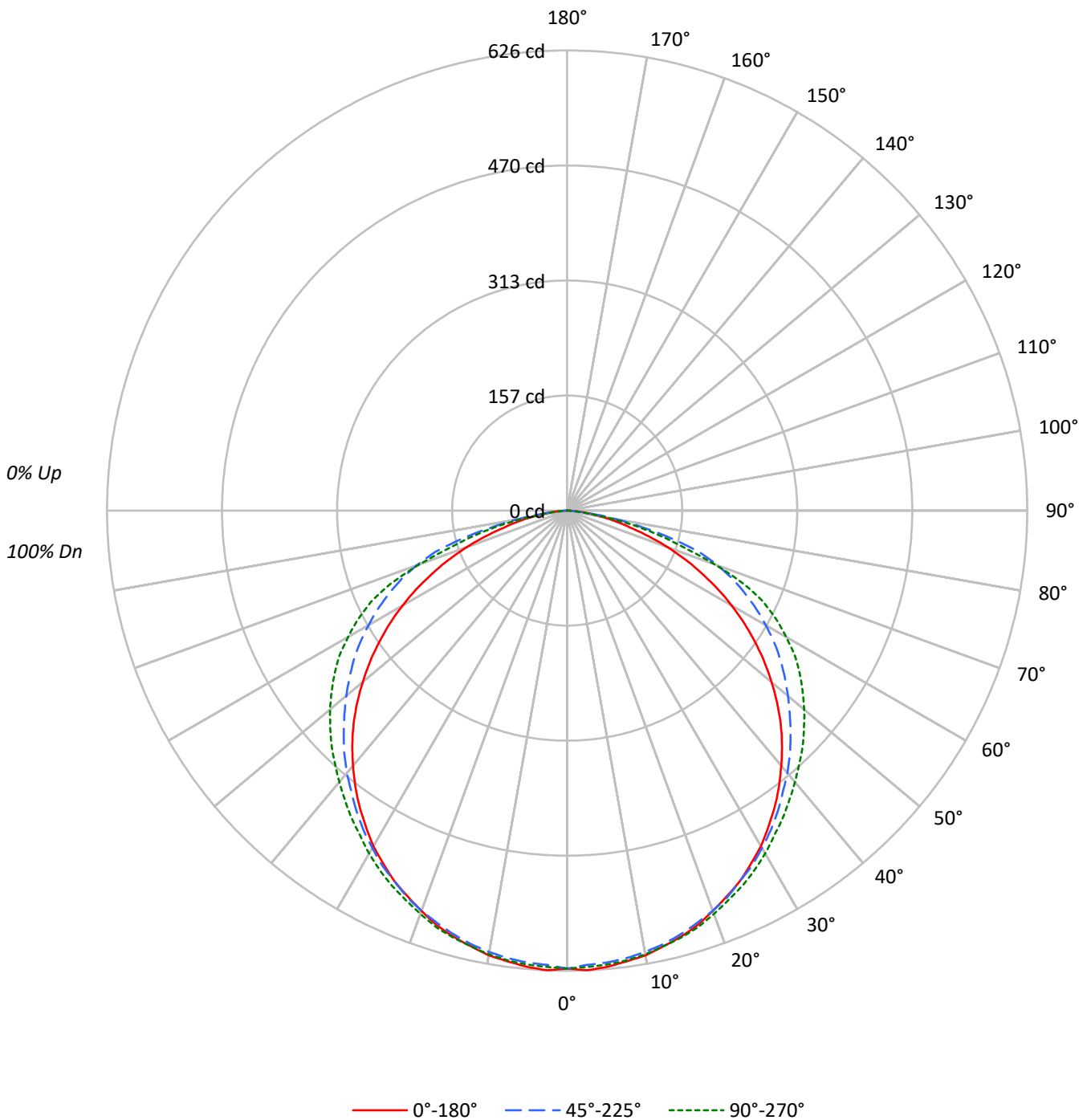
Input Watts (W): 22.134
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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 | 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° | 1676 | 1676 | 1676 |
| 5° | 1683 | 1667 | 1675 |
| 10° | 1678 | 1667 | 1674 |
| 15° | 1671 | 1663 | 1675 |
| 20° | 1659 | 1659 | 1672 |
| 25° | 1651 | 1651 | 1673 |
| 30° | 1638 | 1647 | 1674 |
| 35° | 1617 | 1641 | 1679 |
| 40° | 1592 | 1637 | 1694 |
| 45° | 1564 | 1636 | 1724 |
| 50° | 1520 | 1641 | 1763 |
| 55° | 1465 | 1662 | 1812 |
| 60° | 1391 | 1680 | 1852 |
| 65° | 1285 | 1701 | 1877 |
| 70° | 1142 | 1714 | 1680 |
| 75° | 921 | 1540 | 1343 |
| 80° | 721 | 1080 | 877 |
| 85° | 494 | 315 | 225 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 59.0 | 3.2 |
| 10°-20° | 169.2 | 9.1 |
| 20°-30° | 257.6 | 13.8 |
| 30°-40° | 313.7 | 16.9 |
| 40°-50° | 332.9 | 17.9 |
| 50°-60° | 314.2 | 16.9 |
| 60°-70° | 253.6 | 13.6 |
| 70°-80° | 137.6 | 7.4 |
| 80°-90° | 22.3 | 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° | 485.7 | 26.1 |
| 0°-40° | 799.5 | 43.0 |
| 0°-60° | 1446.5 | 77.8 |
| 0°-90° | 1860.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1860.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 623 | 623 | 623 | 623 | 623 | |
| 5° | 623 | 622 | 617 | 622 | 620 | 59 |
| 15° | 600 | 598 | 597 | 601 | 601 | 169 |
| 25° | 556 | 555 | 556 | 562 | 563 | 256 |
| 35° | 492 | 495 | 500 | 510 | 511 | 308 |
| 45° | 411 | 417 | 430 | 446 | 453 | 316 |
| 55° | 312 | 325 | 354 | 378 | 386 | 279 |
| 65° | 202 | 226 | 267 | 289 | 295 | 200 |
| 75° | 89 | 129 | 148 | 134 | 129 | 97 |
| 85° | 16 | 17 | 10 | 9 | 7 | 21 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P275735

CATALOG NUMBER: 14CZ2-29-RDP-UNV-L83050-W2A1-U-3500K

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 623.0 | 623.0 | 623.0 | 623.0 | 623.0 |
| 2.5° | 625.9 | 623.0 | 618.6 | 623.0 | 621.5 |
| 5° | 623.0 | 621.5 | 617.2 | 621.5 | 620.1 |
| 7.5° | 618.6 | 618.6 | 614.2 | 617.2 | 617.2 |
| 10° | 614.2 | 612.8 | 609.9 | 614.2 | 612.8 |
| 12.5° | 607.0 | 605.5 | 604.1 | 608.4 | 607.0 |
| 15° | 599.7 | 598.3 | 596.8 | 601.2 | 601.2 |
| 17.5° | 591.0 | 589.6 | 588.1 | 593.9 | 593.9 |
| 20° | 579.4 | 579.4 | 579.4 | 585.2 | 583.8 |
| 22.5° | 567.8 | 567.8 | 569.2 | 575.0 | 573.6 |
| 25° | 556.2 | 554.7 | 556.2 | 562.0 | 563.4 |
| 27.5° | 541.6 | 543.1 | 544.5 | 550.4 | 551.8 |
| 30° | 527.1 | 528.6 | 530.0 | 537.3 | 538.7 |
| 32.5° | 509.7 | 512.6 | 515.5 | 524.2 | 524.2 |
| 35° | 492.3 | 495.2 | 499.5 | 509.7 | 511.1 |
| 37.5° | 473.4 | 476.3 | 482.1 | 493.7 | 496.6 |
| 40° | 453.1 | 457.4 | 466.1 | 477.7 | 482.1 |
| 42.5° | 432.7 | 438.5 | 448.7 | 461.8 | 467.6 |
| 45° | 411.0 | 416.8 | 429.8 | 445.8 | 453.1 |
| 47.5° | 387.7 | 395.0 | 411.0 | 431.3 | 437.1 |
| 50° | 363.0 | 373.2 | 392.1 | 413.9 | 421.1 |
| 52.5° | 338.3 | 350.0 | 373.2 | 396.4 | 403.7 |
| 55° | 312.2 | 325.3 | 354.3 | 377.6 | 386.3 |
| 57.5° | 286.1 | 300.6 | 334.0 | 358.7 | 367.4 |
| 60° | 258.5 | 275.9 | 312.2 | 336.9 | 344.2 |
| 62.5° | 230.9 | 251.2 | 290.4 | 315.1 | 320.9 |
| 65° | 201.8 | 226.5 | 267.2 | 289.0 | 294.8 |
| 67.5° | 174.3 | 203.3 | 244.0 | 259.9 | 259.9 |
| 70° | 145.2 | 177.2 | 217.8 | 222.2 | 213.5 |
| 72.5° | 116.2 | 152.5 | 188.8 | 172.8 | 165.5 |
| 75° | 88.6 | 129.2 | 148.1 | 133.6 | 129.2 |
| 77.5° | 66.8 | 104.6 | 104.6 | 95.8 | 92.9 |
| 80° | 46.5 | 79.9 | 69.7 | 61.0 | 56.6 |
| 82.5° | 30.5 | 45.0 | 36.3 | 29.0 | 24.7 |
| 85° | 16.0 | 17.4 | 10.2 | 8.7 | 7.3 |
| 87.5° | 5.8 | 2.9 | 1.5 | 2.9 | 1.5 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)