

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: P275831

Luminaire Tested: **14CZ2-44-RDP-UNV-L82765-W2A1-U-3500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P275831
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: 14CZ2-44-RDP-UNV-L82765-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: 2695.0 lumens
Efficiency: N/A
Efficacy: 75.3 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

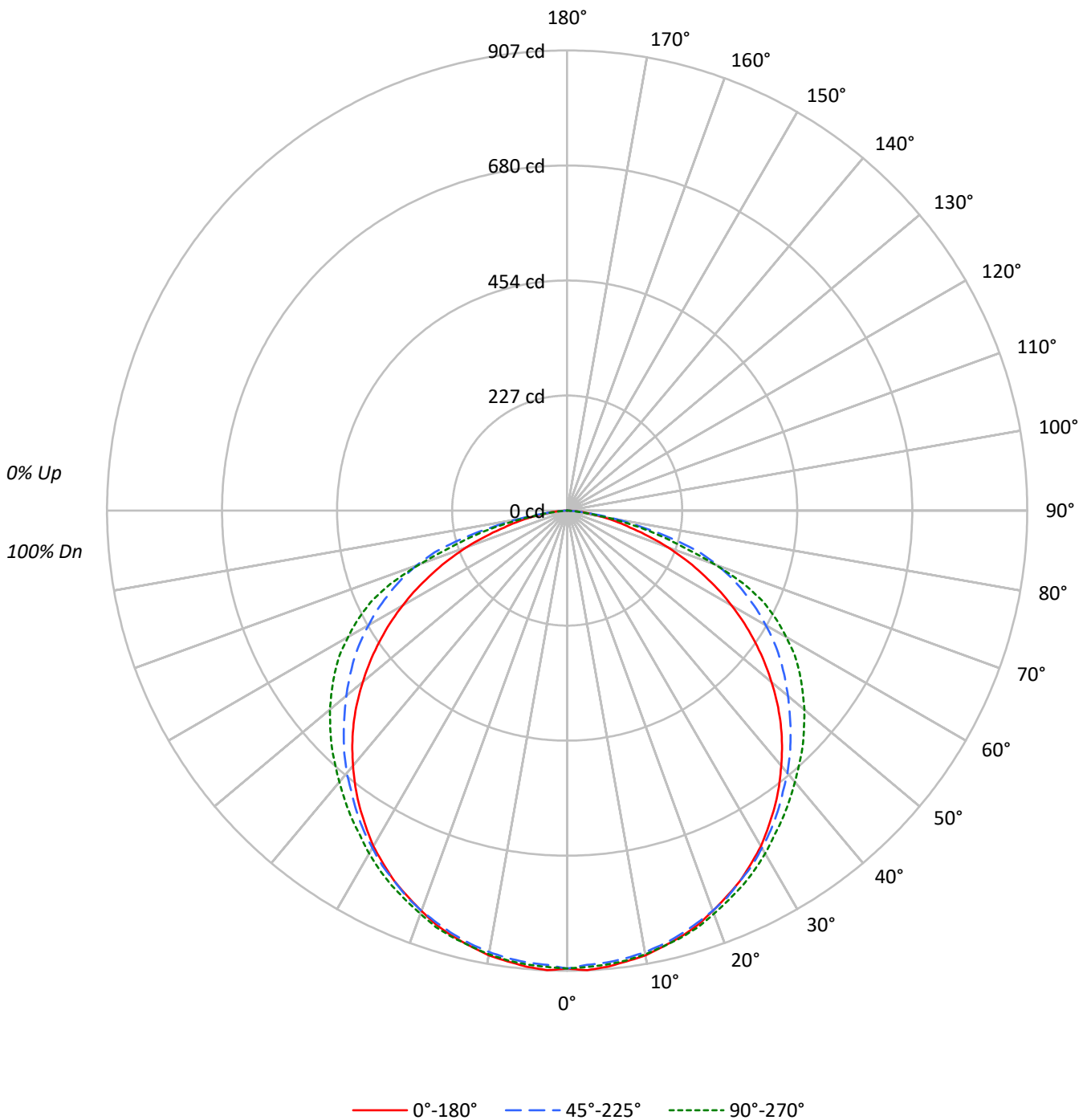
Input Watts (W): 35.805
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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° | 2429 | 2429 | 2429 |
| 5° | 2438 | 2415 | 2427 |
| 10° | 2432 | 2415 | 2426 |
| 15° | 2421 | 2409 | 2427 |
| 20° | 2404 | 2404 | 2422 |
| 25° | 2393 | 2393 | 2424 |
| 30° | 2373 | 2386 | 2426 |
| 35° | 2343 | 2378 | 2433 |
| 40° | 2306 | 2373 | 2454 |
| 45° | 2266 | 2370 | 2498 |
| 50° | 2202 | 2378 | 2555 |
| 55° | 2122 | 2409 | 2626 |
| 60° | 2016 | 2435 | 2684 |
| 65° | 1862 | 2465 | 2720 |
| 70° | 1655 | 2483 | 2434 |
| 75° | 1334 | 2231 | 1947 |
| 80° | 1043 | 1565 | 1272 |
| 85° | 713 | 454 | 324 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 85.4 | 3.2 |
| 10°-20° | 245.1 | 9.1 |
| 20°-30° | 373.2 | 13.8 |
| 30°-40° | 454.6 | 16.9 |
| 40°-50° | 482.3 | 17.9 |
| 50°-60° | 455.2 | 16.9 |
| 60°-70° | 367.5 | 13.6 |
| 70°-80° | 199.4 | 7.4 |
| 80°-90° | 32.3 | 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° | 703.8 | 26.1 |
| 0°-40° | 1158.4 | 43.0 |
| 0°-60° | 2095.9 | 77.8 |
| 0°-90° | 2695.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 2695.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 903 | 903 | 903 | 903 | 903 | |
| 5° | 903 | 900 | 894 | 900 | 898 | 86 |
| 15° | 869 | 867 | 865 | 871 | 871 | 245 |
| 25° | 806 | 804 | 806 | 814 | 816 | 371 |
| 35° | 713 | 718 | 724 | 738 | 741 | 446 |
| 45° | 595 | 604 | 623 | 646 | 656 | 459 |
| 55° | 452 | 471 | 513 | 547 | 560 | 404 |
| 65° | 292 | 328 | 387 | 419 | 427 | 290 |
| 75° | 128 | 187 | 215 | 194 | 187 | 140 |
| 85° | 23 | 25 | 15 | 13 | 10 | 30 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 902.6 | 902.6 | 902.6 | 902.6 | 902.6 |
| 2.5° | 906.8 | 902.6 | 896.3 | 902.6 | 900.5 |
| 5° | 902.6 | 900.5 | 894.2 | 900.5 | 898.4 |
| 7.5° | 896.3 | 896.3 | 890.0 | 894.2 | 894.2 |
| 10° | 890.0 | 887.9 | 883.7 | 890.0 | 887.9 |
| 12.5° | 879.5 | 877.4 | 875.3 | 881.6 | 879.5 |
| 15° | 869.0 | 866.9 | 864.8 | 871.1 | 871.1 |
| 17.5° | 856.3 | 854.2 | 852.1 | 860.5 | 860.5 |
| 20° | 839.5 | 839.5 | 839.5 | 847.9 | 845.8 |
| 22.5° | 822.7 | 822.7 | 824.8 | 833.2 | 831.1 |
| 25° | 805.8 | 803.7 | 805.8 | 814.3 | 816.4 |
| 27.5° | 784.8 | 786.9 | 789.0 | 797.4 | 799.5 |
| 30° | 763.8 | 765.9 | 768.0 | 778.5 | 780.6 |
| 32.5° | 738.5 | 742.7 | 746.9 | 759.6 | 759.6 |
| 35° | 713.3 | 717.5 | 723.8 | 738.5 | 740.6 |
| 37.5° | 685.9 | 690.1 | 698.5 | 715.4 | 719.6 |
| 40° | 656.5 | 662.8 | 675.4 | 692.2 | 698.5 |
| 42.5° | 627.0 | 635.4 | 650.1 | 669.1 | 677.5 |
| 45° | 595.4 | 603.9 | 622.8 | 645.9 | 656.5 |
| 47.5° | 561.8 | 572.3 | 595.4 | 624.9 | 633.3 |
| 50° | 526.0 | 540.7 | 568.1 | 599.6 | 610.2 |
| 52.5° | 490.2 | 507.1 | 540.7 | 574.4 | 584.9 |
| 55° | 452.4 | 471.3 | 513.4 | 547.0 | 559.7 |
| 57.5° | 414.5 | 435.5 | 483.9 | 519.7 | 532.3 |
| 60° | 374.5 | 399.8 | 452.4 | 488.1 | 498.7 |
| 62.5° | 334.5 | 364.0 | 420.8 | 456.6 | 465.0 |
| 65° | 292.5 | 328.2 | 387.1 | 418.7 | 427.1 |
| 67.5° | 252.5 | 294.6 | 353.5 | 376.6 | 376.6 |
| 70° | 210.4 | 256.7 | 315.6 | 321.9 | 309.3 |
| 72.5° | 168.3 | 220.9 | 273.5 | 250.4 | 239.9 |
| 75° | 128.3 | 187.3 | 214.6 | 193.6 | 187.3 |
| 77.5° | 96.8 | 151.5 | 151.5 | 138.9 | 134.7 |
| 80° | 67.3 | 115.7 | 101.0 | 88.4 | 82.1 |
| 82.5° | 44.2 | 65.2 | 52.6 | 42.1 | 35.8 |
| 85° | 23.1 | 25.2 | 14.7 | 12.6 | 10.5 |
| 87.5° | 8.4 | 4.2 | 2.1 | 4.2 | 2.1 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)