

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: P258966

Luminaire Tested: **14CZ-LD5-35-RDP-UNV-L82765-W2A1-U-5700K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P258966
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P35909)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 14CZ-LD5-35-RDP-UNV-L82765-W2A1-U-5700K
Description: CRUZE 1x4 TUNABLE WHITE LED TROFFER
WITH RDP LENS
Light Source: (168) 80 CRI LEDS TUNED AT 5700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2471.0 lumens
Efficiency: N/A
Efficacy: 87.7 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.28 / 1.4
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

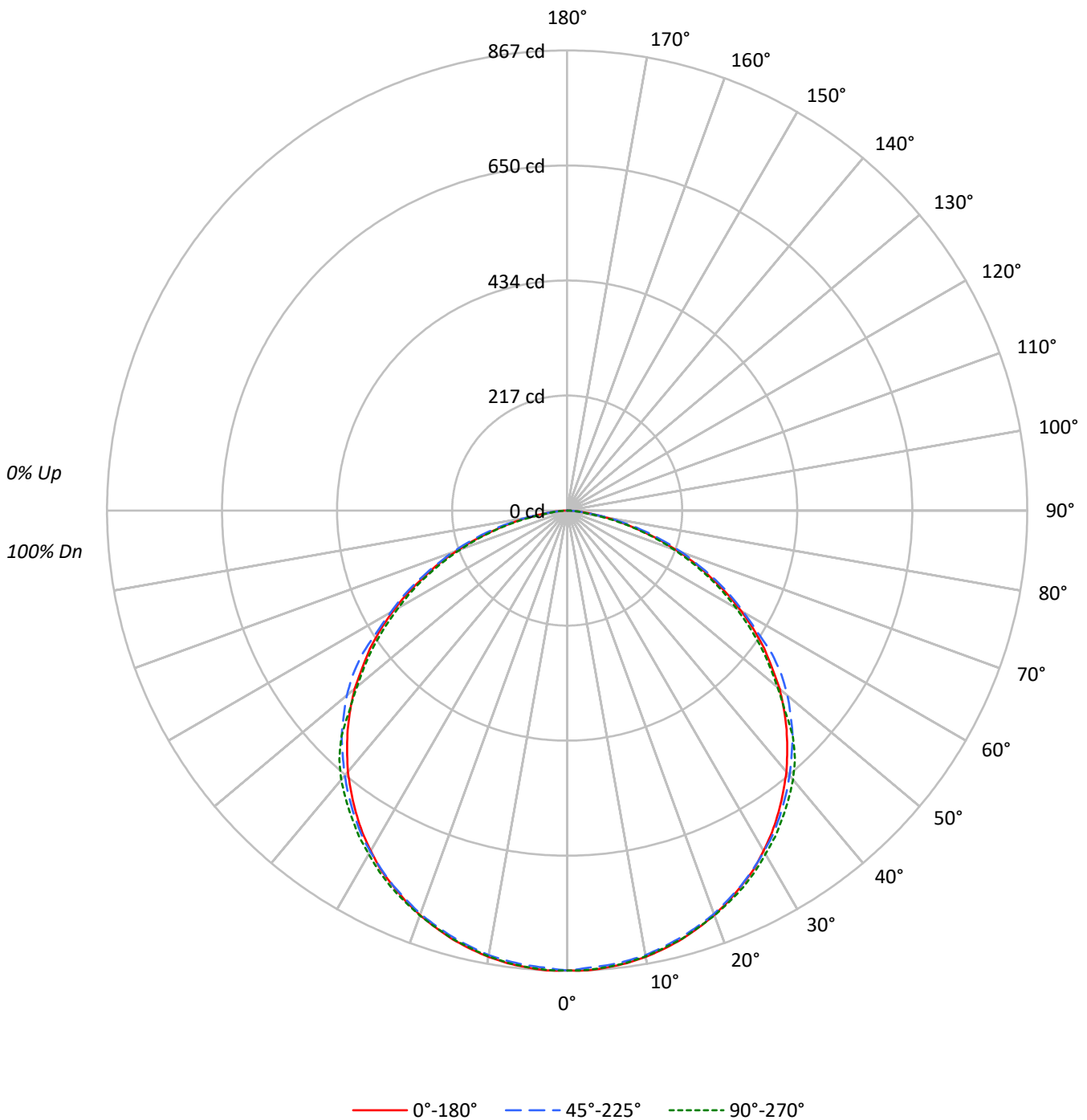
Input Watts (W): 28.179
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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 | 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 | 95 | 98 | 95 | 92 | 94 | 91 | 89 | 90 | 88 | 86 | 84 | | | | | 84 | | | |
| 2 | 99 | 91 | 84 | 79 | 97 | 89 | 83 | 78 | 86 | 80 | 76 | 82 | 78 | 74 | 79 | 76 | 73 | 70 | | | | | 70 | | | |
| 3 | 90 | 80 | 72 | 65 | 88 | 78 | 71 | 65 | 75 | 69 | 64 | 73 | 67 | 63 | 70 | 65 | 61 | 59 | | | | | 59 | | | |
| 4 | 83 | 71 | 62 | 55 | 80 | 69 | 61 | 55 | 67 | 60 | 54 | 65 | 58 | 53 | 62 | 57 | 53 | 51 | | | | | 51 | | | |
| 5 | 76 | 63 | 54 | 48 | 74 | 62 | 54 | 47 | 60 | 53 | 47 | 58 | 51 | 46 | 56 | 50 | 46 | 44 | | | | | 44 | | | |
| 6 | 70 | 57 | 48 | 42 | 68 | 56 | 47 | 41 | 54 | 47 | 41 | 52 | 46 | 41 | 51 | 45 | 40 | 38 | | | | | 38 | | | |
| 7 | 65 | 52 | 43 | 37 | 63 | 51 | 42 | 36 | 49 | 42 | 36 | 48 | 41 | 36 | 46 | 40 | 36 | 34 | | | | | 34 | | | |
| 8 | 61 | 47 | 38 | 33 | 59 | 46 | 38 | 33 | 45 | 38 | 32 | 44 | 37 | 32 | 43 | 36 | 32 | 30 | | | | | 30 | | | |
| 9 | 57 | 43 | 35 | 29 | 55 | 43 | 35 | 29 | 41 | 34 | 29 | 40 | 34 | 29 | 39 | 33 | 29 | 27 | | | | | 27 | | | |
| 10 | 53 | 40 | 32 | 27 | 52 | 39 | 32 | 26 | 38 | 31 | 26 | 37 | 31 | 26 | 36 | 30 | 26 | 24 | | | | | 24 | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 2332 | 2332 | 2332 |
| 5° | 2334 | 2323 | 2332 |
| 10° | 2333 | 2324 | 2331 |
| 15° | 2329 | 2318 | 2327 |
| 20° | 2322 | 2316 | 2325 |
| 25° | 2312 | 2310 | 2327 |
| 30° | 2300 | 2305 | 2322 |
| 35° | 2281 | 2299 | 2323 |
| 40° | 2258 | 2289 | 2325 |
| 45° | 2225 | 2286 | 2289 |
| 50° | 2188 | 2269 | 2165 |
| 55° | 2127 | 2210 | 2086 |
| 60° | 2037 | 2068 | 1977 |
| 65° | 1908 | 1959 | 1856 |
| 70° | 1736 | 1806 | 1679 |
| 75° | 1448 | 1582 | 1423 |
| 80° | 1148 | 1210 | 986 |
| 85° | 747 | 645 | 571 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 82.0 | 3.3 |
| 10°-20° | 235.6 | 9.5 |
| 20°-30° | 359.7 | 14.6 |
| 30°-40° | 438.6 | 17.7 |
| 40°-50° | 459.2 | 18.6 |
| 50°-60° | 408.5 | 16.5 |
| 60°-70° | 301.4 | 12.2 |
| 70°-80° | 155.7 | 6.3 |
| 80°-90° | 30.3 | 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° | 677.4 | 27.4 |
| 0°-40° | 1115.9 | 45.2 |
| 0°-60° | 1983.6 | 80.3 |
| 0°-90° | 2471.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 2471.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 867 | 867 | 867 | 867 | 867 | |
| 5° | 864 | 863 | 860 | 863 | 863 | 82 |
| 15° | 836 | 835 | 832 | 835 | 835 | 236 |
| 25° | 779 | 779 | 778 | 784 | 784 | 359 |
| 35° | 694 | 695 | 700 | 708 | 707 | 434 |
| 45° | 585 | 589 | 601 | 606 | 602 | 451 |
| 55° | 453 | 463 | 471 | 451 | 445 | 404 |
| 65° | 300 | 320 | 308 | 297 | 292 | 297 |
| 75° | 139 | 154 | 152 | 140 | 137 | 151 |
| 85° | 24 | 27 | 21 | 19 | 18 | 31 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 866.6 | 866.6 | 866.6 | 866.6 | 866.6 |
| 2.5° | 867.4 | 866.6 | 862.6 | 866.6 | 866.6 |
| 5° | 864.2 | 863.4 | 860.1 | 863.4 | 863.4 |
| 7.5° | 860.1 | 859.3 | 856.1 | 859.3 | 859.3 |
| 10° | 853.7 | 852.9 | 850.5 | 853.7 | 852.9 |
| 12.5° | 845.6 | 845.6 | 841.6 | 845.6 | 844.0 |
| 15° | 836.0 | 835.2 | 832.0 | 835.2 | 835.2 |
| 17.5° | 823.9 | 823.1 | 820.7 | 824.7 | 823.1 |
| 20° | 811.0 | 810.2 | 808.6 | 812.6 | 811.8 |
| 22.5° | 795.7 | 795.7 | 793.3 | 798.1 | 798.1 |
| 25° | 778.8 | 778.8 | 778.0 | 783.6 | 783.6 |
| 27.5° | 761.9 | 760.3 | 760.3 | 765.9 | 766.7 |
| 30° | 740.1 | 740.1 | 741.8 | 748.2 | 747.4 |
| 32.5° | 718.4 | 719.2 | 722.4 | 728.1 | 728.9 |
| 35° | 694.2 | 695.0 | 699.9 | 707.9 | 707.1 |
| 37.5° | 668.5 | 670.9 | 676.5 | 685.4 | 685.4 |
| 40° | 642.7 | 644.3 | 651.6 | 661.2 | 662.0 |
| 42.5° | 613.7 | 617.7 | 625.8 | 637.1 | 635.4 |
| 45° | 584.7 | 588.7 | 600.8 | 606.5 | 601.6 |
| 47.5° | 554.1 | 558.9 | 571.0 | 571.8 | 555.7 |
| 50° | 522.7 | 528.3 | 542.0 | 525.9 | 517.1 |
| 52.5° | 486.4 | 496.9 | 509.0 | 486.4 | 480.8 |
| 55° | 453.4 | 463.1 | 471.1 | 451.0 | 444.6 |
| 57.5° | 416.4 | 429.3 | 423.6 | 414.0 | 405.9 |
| 60° | 378.5 | 392.2 | 384.2 | 374.5 | 367.3 |
| 62.5° | 339.9 | 355.2 | 347.1 | 337.5 | 331.0 |
| 65° | 299.6 | 320.5 | 307.7 | 297.2 | 291.5 |
| 67.5° | 261.7 | 281.9 | 266.6 | 258.5 | 252.9 |
| 70° | 220.7 | 237.6 | 229.5 | 219.1 | 213.4 |
| 72.5° | 180.4 | 193.3 | 190.9 | 179.6 | 175.6 |
| 75° | 139.3 | 153.8 | 152.2 | 140.1 | 136.9 |
| 77.5° | 104.7 | 118.4 | 113.6 | 103.9 | 99.9 |
| 80° | 74.1 | 83.0 | 78.1 | 66.8 | 63.6 |
| 82.5° | 45.1 | 52.3 | 44.3 | 37.9 | 34.6 |
| 85° | 24.2 | 26.6 | 20.9 | 19.3 | 18.5 |
| 87.5° | 8.9 | 8.9 | 8.9 | 8.1 | 8.1 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)