

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: P259001

Luminaire Tested: **14CZ-LD5-25-RDP-UNV-L92765-W2A1-U-5500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P259001
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-LD5-25-RDP-UNV-L92765-W2A1-U-5500K
Description: CRUZE 1x4 TUNABLE WHITE LED TROFFER
WITH RDP LENS
Light Source: (168) 90 CRI LEDS TUNED AT 5500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1548.0 lumens
Efficiency: N/A
Efficacy: 82.4 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

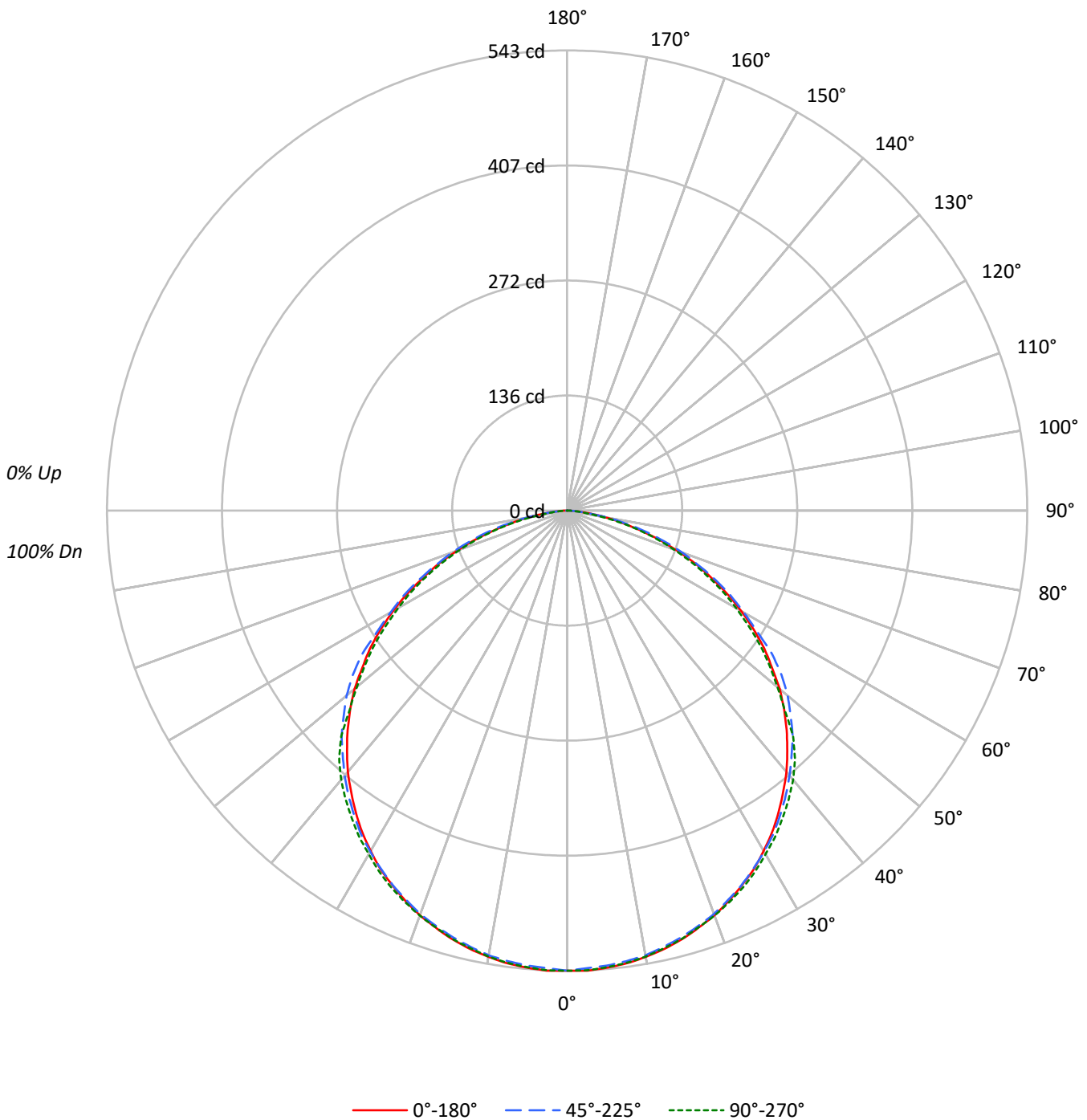
Input Watts (W): 18.786
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 1461 | 1461 | 1461 |
| 5° | 1462 | 1456 | 1461 |
| 10° | 1461 | 1456 | 1460 |
| 15° | 1459 | 1452 | 1458 |
| 20° | 1455 | 1451 | 1456 |
| 25° | 1449 | 1447 | 1458 |
| 30° | 1441 | 1444 | 1455 |
| 35° | 1429 | 1440 | 1455 |
| 40° | 1414 | 1434 | 1457 |
| 45° | 1394 | 1432 | 1434 |
| 50° | 1371 | 1422 | 1356 |
| 55° | 1333 | 1385 | 1307 |
| 60° | 1276 | 1295 | 1238 |
| 65° | 1195 | 1227 | 1163 |
| 70° | 1087 | 1131 | 1052 |
| 75° | 908 | 992 | 892 |
| 80° | 719 | 758 | 618 |
| 85° | 466 | 404 | 358 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 51.4 | 3.3 |
| 10°-20° | 147.6 | 9.5 |
| 20°-30° | 225.3 | 14.6 |
| 30°-40° | 274.7 | 17.7 |
| 40°-50° | 287.7 | 18.6 |
| 50°-60° | 255.9 | 16.5 |
| 60°-70° | 188.8 | 12.2 |
| 70°-80° | 97.6 | 6.3 |
| 80°-90° | 18.9 | 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° | 424.3 | 27.4 |
| 0°-40° | 699.1 | 45.2 |
| 0°-60° | 1242.7 | 80.3 |
| 0°-90° | 1548.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1548.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 543 | 543 | 543 | 543 | 543 | |
| 5° | 541 | 541 | 539 | 541 | 541 | 51 |
| 15° | 524 | 523 | 521 | 523 | 523 | 148 |
| 25° | 488 | 488 | 487 | 491 | 491 | 225 |
| 35° | 435 | 435 | 438 | 444 | 443 | 272 |
| 45° | 366 | 369 | 376 | 380 | 377 | 282 |
| 55° | 284 | 290 | 295 | 282 | 278 | 253 |
| 65° | 188 | 201 | 193 | 186 | 183 | 186 |
| 75° | 87 | 96 | 95 | 88 | 86 | 94 |
| 85° | 15 | 17 | 13 | 12 | 12 | 20 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 542.9 | 542.9 | 542.9 | 542.9 | 542.9 |
| 2.5° | 543.4 | 542.9 | 540.4 | 542.9 | 542.9 |
| 5° | 541.4 | 540.9 | 538.9 | 540.9 | 540.9 |
| 7.5° | 538.9 | 538.3 | 536.3 | 538.3 | 538.3 |
| 10° | 534.8 | 534.3 | 532.8 | 534.8 | 534.3 |
| 12.5° | 529.8 | 529.8 | 527.2 | 529.8 | 528.8 |
| 15° | 523.7 | 523.2 | 521.2 | 523.2 | 523.2 |
| 17.5° | 516.1 | 515.6 | 514.1 | 516.7 | 515.6 |
| 20° | 508.1 | 507.6 | 506.6 | 509.1 | 508.6 |
| 22.5° | 498.5 | 498.5 | 497.0 | 500.0 | 500.0 |
| 25° | 487.9 | 487.9 | 487.4 | 490.9 | 490.9 |
| 27.5° | 477.3 | 476.3 | 476.3 | 479.8 | 480.3 |
| 30° | 463.7 | 463.7 | 464.7 | 468.7 | 468.2 |
| 32.5° | 450.1 | 450.6 | 452.6 | 456.1 | 456.6 |
| 35° | 434.9 | 435.4 | 438.4 | 443.5 | 443.0 |
| 37.5° | 418.8 | 420.3 | 423.8 | 429.4 | 429.4 |
| 40° | 402.6 | 403.6 | 408.2 | 414.2 | 414.7 |
| 42.5° | 384.5 | 387.0 | 392.0 | 399.1 | 398.1 |
| 45° | 366.3 | 368.8 | 376.4 | 379.9 | 376.9 |
| 47.5° | 347.1 | 350.2 | 357.7 | 358.2 | 348.1 |
| 50° | 327.4 | 331.0 | 339.6 | 329.5 | 323.9 |
| 52.5° | 304.7 | 311.3 | 318.9 | 304.7 | 301.2 |
| 55° | 284.1 | 290.1 | 295.2 | 282.5 | 278.5 |
| 57.5° | 260.8 | 268.9 | 265.4 | 259.3 | 254.3 |
| 60° | 237.1 | 245.7 | 240.7 | 234.6 | 230.1 |
| 62.5° | 212.9 | 222.5 | 217.5 | 211.4 | 207.4 |
| 65° | 187.7 | 200.8 | 192.7 | 186.2 | 182.6 |
| 67.5° | 164.0 | 176.6 | 167.0 | 162.0 | 158.4 |
| 70° | 138.2 | 148.8 | 143.8 | 137.2 | 133.7 |
| 72.5° | 113.0 | 121.1 | 119.6 | 112.5 | 110.0 |
| 75° | 87.3 | 96.4 | 95.4 | 87.8 | 85.8 |
| 77.5° | 65.6 | 74.2 | 71.1 | 65.1 | 62.6 |
| 80° | 46.4 | 52.0 | 48.9 | 41.9 | 39.9 |
| 82.5° | 28.3 | 32.8 | 27.7 | 23.7 | 21.7 |
| 85° | 15.1 | 16.6 | 13.1 | 12.1 | 11.6 |
| 87.5° | 5.5 | 5.5 | 5.5 | 5.0 | 5.0 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)