

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: P260453

Luminaire Tested: **22CZ-LD5-24-RDP-UNV-L82765-W2A1-U-2700K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P260453
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25714)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ-LD5-24-RDP-UNV-L82765-W2A1-U-2700K
Description: CRUZE 2x2 TUNABLE WHITE LED TROFFER
WITH RDP LENS
Light Source: (168) 80 CRI LEDS TUNED AT 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1648.0 lumens
Efficiency: N/A
Efficacy: 93.8 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.36
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

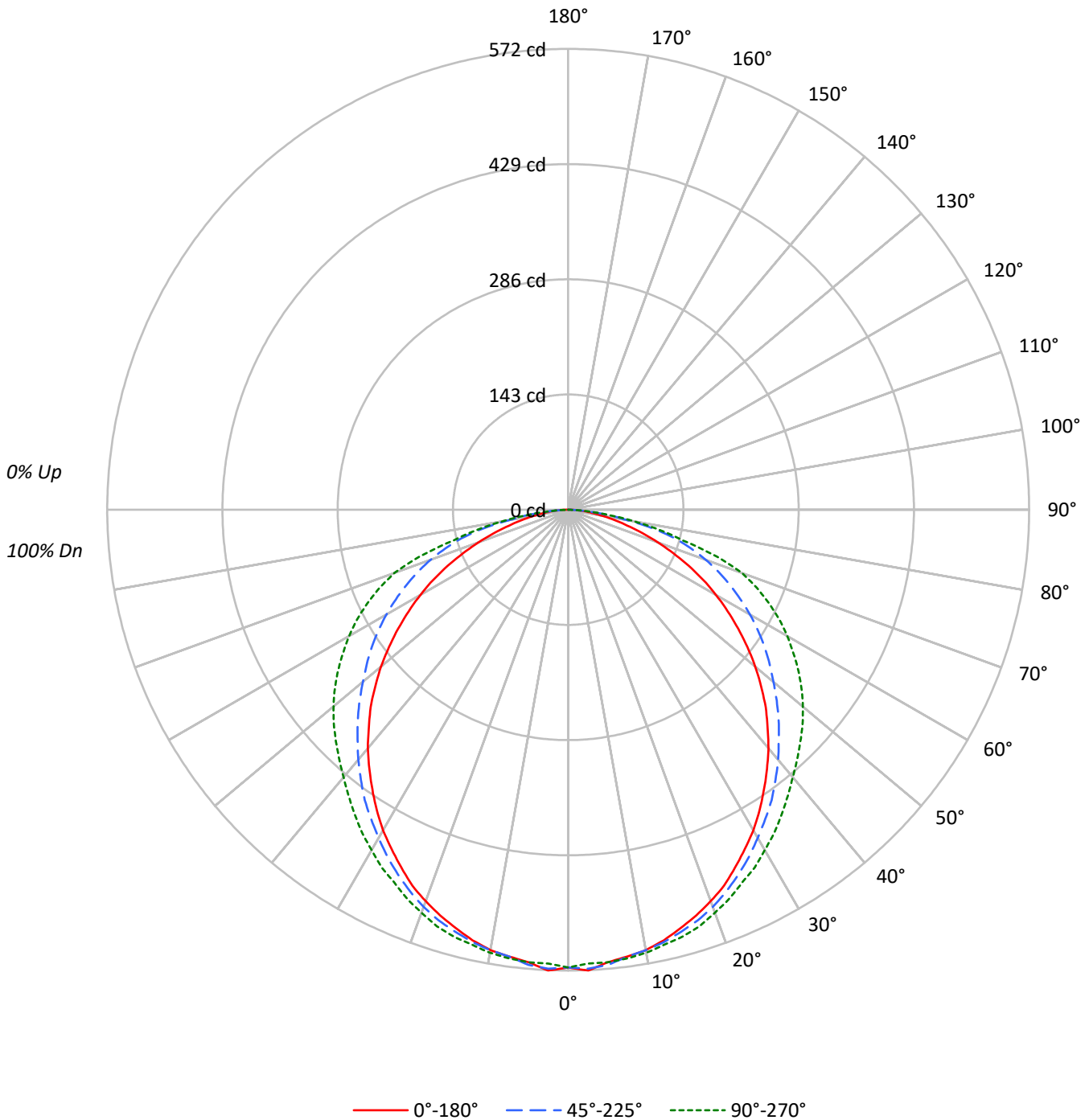
Input Watts (W): 17.577
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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 | 108 | 104 | 99 | 95 | 106 | 101 | 97 | 94 | 97 | 94 | 91 | 93 | 90 | 88 | 89 | 87 | 85 | 83 |
| 2 | 98 | 90 | 83 | 77 | 96 | 88 | 81 | 76 | 84 | 79 | 74 | 81 | 77 | 73 | 78 | 74 | 71 | 69 |
| 3 | 89 | 79 | 70 | 64 | 87 | 77 | 69 | 63 | 74 | 67 | 62 | 71 | 66 | 61 | 69 | 64 | 60 | 57 |
| 4 | 82 | 69 | 60 | 54 | 79 | 68 | 60 | 53 | 66 | 58 | 52 | 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 | 37 | 31 | 43 | 36 | 31 | 42 | 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 | 26 | 51 | 38 | 31 | 26 | 37 | 30 | 25 | 36 | 30 | 25 | 36 | 30 | 25 | 23 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 1529 | 1529 | 1529 |
| 5° | 1523 | 1532 | 1523 |
| 10° | 1517 | 1517 | 1526 |
| 15° | 1498 | 1510 | 1528 |
| 20° | 1481 | 1503 | 1524 |
| 25° | 1455 | 1484 | 1516 |
| 30° | 1428 | 1462 | 1516 |
| 35° | 1392 | 1445 | 1517 |
| 40° | 1358 | 1423 | 1523 |
| 45° | 1319 | 1406 | 1550 |
| 50° | 1269 | 1392 | 1592 |
| 55° | 1208 | 1397 | 1636 |
| 60° | 1140 | 1403 | 1690 |
| 65° | 1051 | 1411 | 1750 |
| 70° | 932 | 1427 | 1803 |
| 75° | 790 | 1423 | 1536 |
| 80° | 657 | 1145 | 1280 |
| 85° | 571 | 772 | 738 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 53.7 | 3.3 |
| 10°-20° | 153.1 | 9.3 |
| 20°-30° | 230.4 | 14.0 |
| 30°-40° | 276.1 | 16.8 |
| 40°-50° | 287.9 | 17.5 |
| 50°-60° | 268.0 | 16.3 |
| 60°-70° | 217.6 | 13.2 |
| 70°-80° | 131.2 | 8.0 |
| 80°-90° | 30.1 | 1.8 |
| 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° | 437.2 | 26.5 |
| 0°-40° | 713.2 | 43.3 |
| 0°-60° | 1269.1 | 77.0 |
| 0°-90° | 1648.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1648.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 568 | 568 | 568 | 568 | 568 | |
| 5° | 564 | 564 | 567 | 568 | 564 | 54 |
| 15° | 538 | 540 | 542 | 545 | 549 | 152 |
| 25° | 490 | 493 | 500 | 506 | 511 | 226 |
| 35° | 424 | 429 | 440 | 453 | 462 | 265 |
| 45° | 347 | 353 | 369 | 393 | 407 | 267 |
| 55° | 258 | 268 | 298 | 330 | 349 | 230 |
| 65° | 165 | 182 | 222 | 256 | 275 | 163 |
| 75° | 76 | 101 | 137 | 146 | 148 | 82 |
| 85° | 18 | 23 | 25 | 24 | 24 | 21 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 568.2 | 568.2 | 568.2 | 568.2 | 568.2 |
| 2.5° | 572.5 | 571.4 | 570.3 | 567.1 | 563.8 |
| 5° | 563.8 | 563.8 | 567.1 | 568.2 | 563.8 |
| 7.5° | 559.5 | 559.5 | 559.5 | 563.8 | 561.7 |
| 10° | 555.1 | 555.1 | 555.1 | 558.4 | 558.4 |
| 12.5° | 547.5 | 548.6 | 549.7 | 550.8 | 553.0 |
| 15° | 537.8 | 539.9 | 542.1 | 545.4 | 548.6 |
| 17.5° | 528.0 | 530.1 | 534.5 | 537.8 | 542.1 |
| 20° | 517.1 | 519.3 | 524.7 | 528.0 | 532.3 |
| 22.5° | 505.2 | 506.2 | 512.8 | 517.1 | 522.5 |
| 25° | 490.0 | 493.2 | 499.7 | 506.2 | 510.6 |
| 27.5° | 474.7 | 478.0 | 485.6 | 494.3 | 500.8 |
| 30° | 459.5 | 462.8 | 470.4 | 481.3 | 487.8 |
| 32.5° | 442.2 | 446.5 | 455.2 | 468.2 | 475.8 |
| 35° | 423.7 | 429.1 | 440.0 | 453.0 | 461.7 |
| 37.5° | 405.2 | 410.6 | 422.6 | 438.9 | 447.6 |
| 40° | 386.7 | 392.2 | 405.2 | 422.6 | 433.5 |
| 42.5° | 366.1 | 372.6 | 386.7 | 407.4 | 420.4 |
| 45° | 346.6 | 353.1 | 369.4 | 393.3 | 407.4 |
| 47.5° | 324.8 | 332.4 | 350.9 | 378.1 | 394.4 |
| 50° | 303.1 | 311.8 | 332.4 | 362.8 | 380.2 |
| 52.5° | 280.3 | 290.1 | 315.0 | 346.6 | 365.0 |
| 55° | 257.5 | 268.3 | 297.7 | 330.3 | 348.7 |
| 57.5° | 234.7 | 246.6 | 279.2 | 312.9 | 331.3 |
| 60° | 211.8 | 224.9 | 260.7 | 295.5 | 314.0 |
| 62.5° | 189.0 | 203.2 | 241.2 | 275.9 | 295.5 |
| 65° | 165.1 | 182.5 | 221.6 | 256.4 | 274.9 |
| 67.5° | 141.2 | 161.9 | 202.1 | 235.7 | 253.1 |
| 70° | 118.4 | 141.2 | 181.4 | 212.9 | 229.2 |
| 72.5° | 96.7 | 120.6 | 159.7 | 186.9 | 193.4 |
| 75° | 76.0 | 101.0 | 136.9 | 145.6 | 147.7 |
| 77.5° | 58.7 | 81.5 | 108.6 | 110.8 | 116.2 |
| 80° | 42.4 | 61.9 | 73.9 | 80.4 | 82.6 |
| 82.5° | 29.3 | 42.4 | 48.9 | 50.0 | 51.1 |
| 85° | 18.5 | 22.8 | 25.0 | 23.9 | 23.9 |
| 87.5° | 9.8 | 8.7 | 7.6 | 5.4 | 4.3 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)