

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: P260290

Luminaire Tested: **22CZ-LD5-24-SQP-UNV-L82765-W2A1-U-5000K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P260290
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25713)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ-LD5-24-SQP-UNV-L82765-W2A1-U-5000K
Description: CRUZE 2x2 TUNABLE WHITE LED TROFFER
WITH SQP LENS
Light Source: (168) 80 CRI LEDS TUNED AT 5000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1571.0 lumens
Efficiency: N/A
Efficacy: 87.5 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.31 / 1.41
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

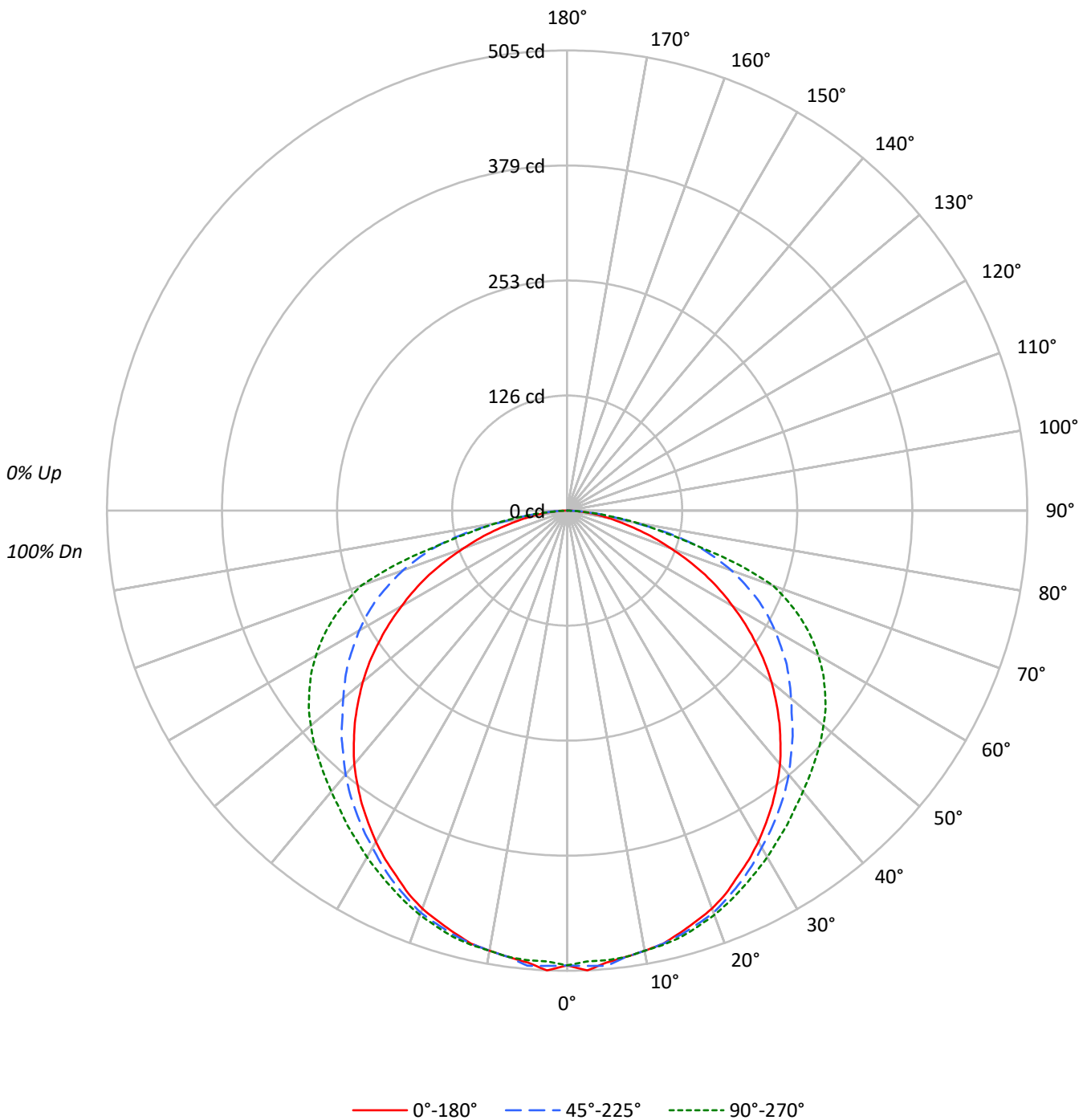
Input Watts (W): 17.949
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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 | 103 | 99 | 95 | 105 | 101 | 97 | 93 | 97 | 93 | 90 | 93 | 90 | 87 | 89 | 87 | 85 | 83 |
| 2 | 98 | 89 | 82 | 76 | 95 | 87 | 81 | 75 | 84 | 78 | 73 | 80 | 76 | 71 | 77 | 73 | 70 | 68 |
| 3 | 89 | 78 | 69 | 62 | 86 | 76 | 68 | 62 | 73 | 66 | 61 | 70 | 64 | 59 | 68 | 63 | 58 | 56 |
| 4 | 81 | 68 | 59 | 52 | 79 | 67 | 58 | 52 | 64 | 57 | 51 | 62 | 56 | 50 | 60 | 54 | 50 | 47 |
| 5 | 74 | 61 | 52 | 45 | 72 | 60 | 51 | 44 | 58 | 50 | 44 | 56 | 49 | 43 | 54 | 48 | 43 | 41 |
| 6 | 68 | 55 | 45 | 39 | 66 | 54 | 45 | 39 | 52 | 44 | 38 | 50 | 43 | 38 | 48 | 42 | 37 | 35 |
| 7 | 63 | 49 | 40 | 34 | 62 | 49 | 40 | 34 | 47 | 39 | 34 | 45 | 39 | 33 | 44 | 38 | 33 | 31 |
| 8 | 59 | 45 | 36 | 30 | 57 | 44 | 36 | 30 | 43 | 35 | 30 | 42 | 35 | 30 | 40 | 34 | 29 | 28 |
| 9 | 55 | 41 | 33 | 27 | 54 | 41 | 33 | 27 | 39 | 32 | 27 | 38 | 32 | 27 | 37 | 31 | 27 | 25 |
| 10 | 51 | 38 | 30 | 24 | 50 | 37 | 30 | 24 | 36 | 29 | 24 | 35 | 29 | 24 | 35 | 28 | 24 | 22 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 1343 | 1343 | 1343 |
| 5° | 1345 | 1354 | 1338 |
| 10° | 1340 | 1340 | 1340 |
| 15° | 1336 | 1343 | 1349 |
| 20° | 1331 | 1345 | 1352 |
| 25° | 1315 | 1337 | 1355 |
| 30° | 1304 | 1327 | 1365 |
| 35° | 1290 | 1327 | 1383 |
| 40° | 1277 | 1329 | 1414 |
| 45° | 1254 | 1332 | 1467 |
| 50° | 1226 | 1343 | 1537 |
| 55° | 1185 | 1379 | 1620 |
| 60° | 1129 | 1418 | 1714 |
| 65° | 1064 | 1468 | 1810 |
| 70° | 950 | 1507 | 1891 |
| 75° | 824 | 1510 | 1497 |
| 80° | 699 | 1116 | 1210 |
| 85° | 602 | 753 | 679 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 47.4 | 3.0 |
| 10°-20° | 136.1 | 8.7 |
| 20°-30° | 207.3 | 13.2 |
| 30°-40° | 253.7 | 16.1 |
| 40°-50° | 273.0 | 17.4 |
| 50°-60° | 264.4 | 16.8 |
| 60°-70° | 224.0 | 14.3 |
| 70°-80° | 135.4 | 8.6 |
| 80°-90° | 29.8 | 1.9 |
| 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° | 390.8 | 24.9 |
| 0°-40° | 644.5 | 41.0 |
| 0°-60° | 1181.9 | 75.2 |
| 0°-90° | 1571.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1571.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 499 | 499 | 499 | 499 | 499 | |
| 5° | 498 | 498 | 501 | 499 | 495 | 47 |
| 15° | 480 | 481 | 482 | 483 | 484 | 135 |
| 25° | 443 | 445 | 450 | 454 | 456 | 204 |
| 35° | 393 | 395 | 404 | 415 | 421 | 246 |
| 45° | 329 | 336 | 350 | 372 | 386 | 254 |
| 55° | 252 | 264 | 294 | 328 | 345 | 226 |
| 65° | 167 | 185 | 231 | 267 | 284 | 165 |
| 75° | 79 | 107 | 145 | 148 | 144 | 85 |
| 85° | 20 | 23 | 24 | 23 | 22 | 22 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P260290

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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 499.0 | 499.0 | 499.0 | 499.0 | 499.0 |
| 2.5° | 505.1 | 503.9 | 500.2 | 497.8 | 495.3 |
| 5° | 497.8 | 497.8 | 501.4 | 499.0 | 495.3 |
| 7.5° | 494.1 | 494.1 | 494.1 | 500.2 | 494.1 |
| 10° | 490.5 | 491.7 | 490.5 | 495.3 | 490.5 |
| 12.5° | 486.8 | 486.8 | 486.8 | 488.0 | 488.0 |
| 15° | 479.5 | 480.7 | 481.9 | 483.1 | 484.4 |
| 17.5° | 472.2 | 473.4 | 475.8 | 477.0 | 478.3 |
| 20° | 464.8 | 466.1 | 469.7 | 469.7 | 472.2 |
| 22.5° | 455.1 | 455.1 | 460.0 | 461.2 | 464.8 |
| 25° | 442.9 | 445.3 | 450.2 | 453.9 | 456.3 |
| 27.5° | 431.9 | 434.3 | 439.2 | 444.1 | 447.8 |
| 30° | 419.7 | 422.1 | 427.0 | 434.3 | 439.2 |
| 32.5° | 406.3 | 408.7 | 416.0 | 424.6 | 429.5 |
| 35° | 392.8 | 395.3 | 403.8 | 414.8 | 420.9 |
| 37.5° | 378.2 | 381.9 | 391.6 | 403.8 | 411.1 |
| 40° | 363.6 | 367.2 | 378.2 | 391.6 | 402.6 |
| 42.5° | 346.5 | 351.4 | 363.6 | 381.9 | 394.1 |
| 45° | 329.4 | 335.5 | 350.1 | 372.1 | 385.5 |
| 47.5° | 311.1 | 317.2 | 334.3 | 362.3 | 377.0 |
| 50° | 292.8 | 300.1 | 320.9 | 351.4 | 367.2 |
| 52.5° | 273.3 | 280.6 | 307.4 | 340.4 | 357.5 |
| 55° | 252.5 | 263.5 | 294.0 | 328.2 | 345.3 |
| 57.5° | 231.8 | 244.0 | 278.2 | 314.8 | 333.1 |
| 60° | 209.8 | 224.5 | 263.5 | 300.1 | 318.4 |
| 62.5° | 189.1 | 205.0 | 247.7 | 284.3 | 302.6 |
| 65° | 167.1 | 185.4 | 230.6 | 267.2 | 284.3 |
| 67.5° | 144.0 | 167.1 | 211.1 | 246.4 | 263.5 |
| 70° | 120.8 | 147.6 | 191.5 | 224.5 | 240.3 |
| 72.5° | 100.0 | 128.1 | 169.6 | 197.6 | 197.6 |
| 75° | 79.3 | 107.4 | 145.2 | 147.6 | 144.0 |
| 77.5° | 61.0 | 87.8 | 113.5 | 103.7 | 106.1 |
| 80° | 45.1 | 67.1 | 72.0 | 75.6 | 78.1 |
| 82.5° | 30.5 | 45.1 | 46.4 | 48.8 | 48.8 |
| 85° | 19.5 | 23.2 | 24.4 | 23.2 | 22.0 |
| 87.5° | 8.5 | 9.8 | 7.3 | 4.9 | 3.7 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)