

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: P260288

Luminaire Tested: **22CZ-LD5-24-SQP-UNV-L82765-W2A1-U-4000K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P260288
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-4000K
Description: CRUZE 2x2 TUNABLE WHITE LED TROFFER
WITH SQP LENS
Light Source: (168) 80 CRI LEDS TUNED AT 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1523.0 lumens
Efficiency: N/A
Efficacy: 85.7 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

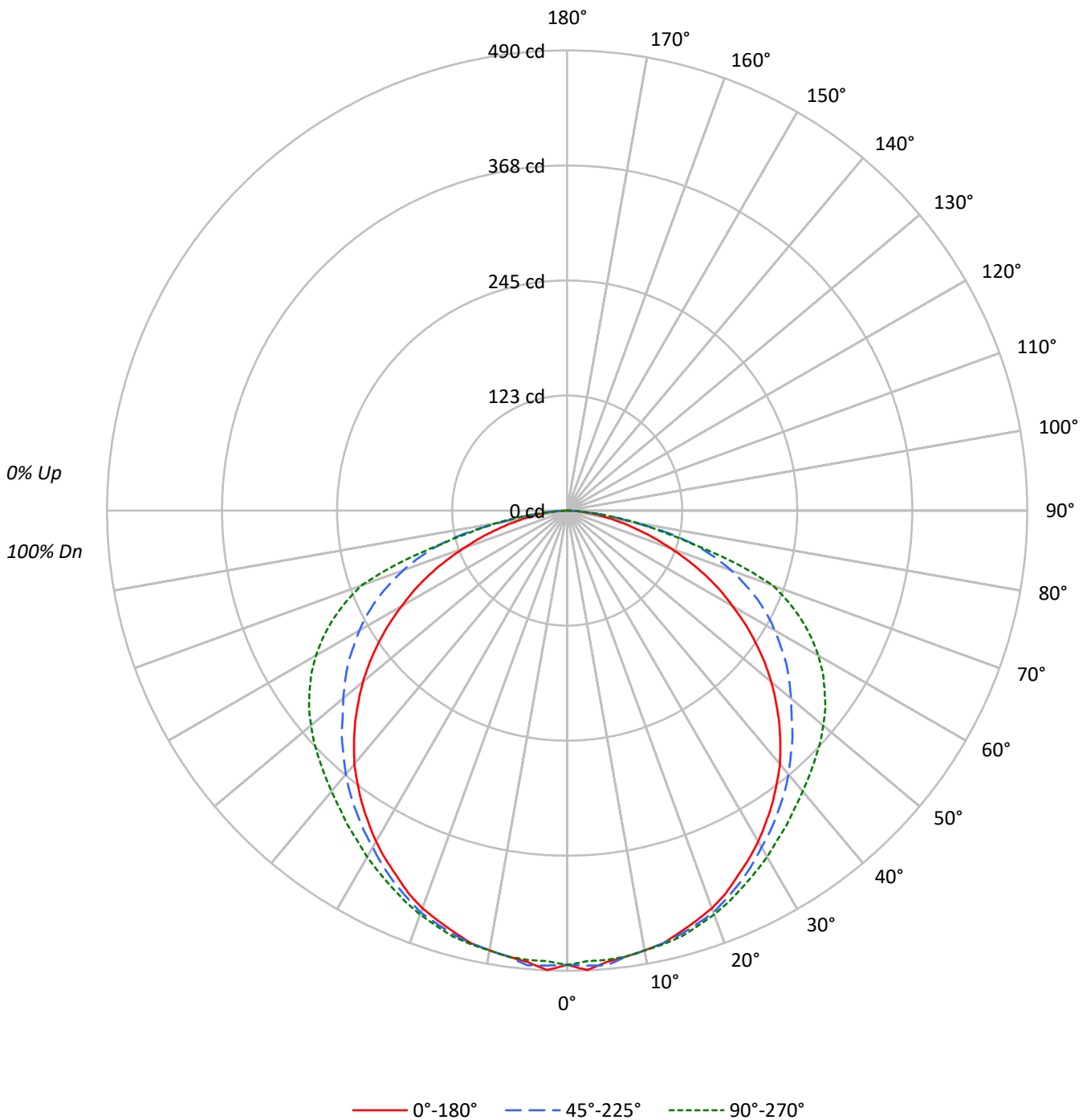
Input Watts (W): 17.763
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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° | 1302 | 1302 | 1302 |
| 5° | 1304 | 1313 | 1297 |
| 10° | 1299 | 1299 | 1299 |
| 15° | 1295 | 1302 | 1308 |
| 20° | 1290 | 1304 | 1311 |
| 25° | 1275 | 1296 | 1313 |
| 30° | 1264 | 1286 | 1323 |
| 35° | 1251 | 1286 | 1340 |
| 40° | 1238 | 1288 | 1371 |
| 45° | 1215 | 1292 | 1422 |
| 50° | 1189 | 1302 | 1490 |
| 55° | 1148 | 1337 | 1570 |
| 60° | 1095 | 1375 | 1661 |
| 65° | 1032 | 1423 | 1755 |
| 70° | 921 | 1461 | 1833 |
| 75° | 800 | 1463 | 1451 |
| 80° | 679 | 1082 | 1173 |
| 85° | 584 | 732 | 658 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 45.9 | 3.0 |
| 10°-20° | 131.9 | 8.7 |
| 20°-30° | 201.0 | 13.2 |
| 30°-40° | 245.9 | 16.1 |
| 40°-50° | 264.6 | 17.4 |
| 50°-60° | 256.3 | 16.8 |
| 60°-70° | 217.1 | 14.3 |
| 70°-80° | 131.3 | 8.6 |
| 80°-90° | 28.8 | 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° | 378.8 | 24.9 |
| 0°-40° | 624.8 | 41.0 |
| 0°-60° | 1145.8 | 75.2 |
| 0°-90° | 1523.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1523.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 484 | 484 | 484 | 484 | 484 | |
| 5° | 483 | 483 | 486 | 484 | 480 | 46 |
| 15° | 465 | 466 | 467 | 468 | 470 | 131 |
| 25° | 429 | 432 | 436 | 440 | 442 | 198 |
| 35° | 381 | 383 | 392 | 402 | 408 | 238 |
| 45° | 319 | 325 | 339 | 361 | 374 | 246 |
| 55° | 245 | 256 | 285 | 318 | 335 | 219 |
| 65° | 162 | 180 | 224 | 259 | 276 | 160 |
| 75° | 77 | 104 | 141 | 143 | 140 | 83 |
| 85° | 19 | 22 | 24 | 22 | 21 | 21 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 483.7 | 483.7 | 483.7 | 483.7 | 483.7 |
| 2.5° | 489.7 | 488.5 | 484.9 | 482.6 | 480.2 |
| 5° | 482.6 | 482.6 | 486.1 | 483.7 | 480.2 |
| 7.5° | 479.0 | 479.0 | 479.0 | 484.9 | 479.0 |
| 10° | 475.5 | 476.6 | 475.5 | 480.2 | 475.5 |
| 12.5° | 471.9 | 471.9 | 471.9 | 473.1 | 473.1 |
| 15° | 464.8 | 466.0 | 467.2 | 468.4 | 469.6 |
| 17.5° | 457.7 | 458.9 | 461.3 | 462.5 | 463.6 |
| 20° | 450.6 | 451.8 | 455.4 | 455.4 | 457.7 |
| 22.5° | 441.2 | 441.2 | 445.9 | 447.1 | 450.6 |
| 25° | 429.3 | 431.7 | 436.4 | 440.0 | 442.3 |
| 27.5° | 418.7 | 421.1 | 425.8 | 430.5 | 434.1 |
| 30° | 406.9 | 409.2 | 414.0 | 421.1 | 425.8 |
| 32.5° | 393.9 | 396.2 | 403.3 | 411.6 | 416.3 |
| 35° | 380.8 | 383.2 | 391.5 | 402.1 | 408.0 |
| 37.5° | 366.7 | 370.2 | 379.7 | 391.5 | 398.6 |
| 40° | 352.5 | 356.0 | 366.7 | 379.7 | 390.3 |
| 42.5° | 335.9 | 340.6 | 352.5 | 370.2 | 382.0 |
| 45° | 319.3 | 325.3 | 339.4 | 360.7 | 373.7 |
| 47.5° | 301.6 | 307.5 | 324.1 | 351.3 | 365.5 |
| 50° | 283.9 | 291.0 | 311.1 | 340.6 | 356.0 |
| 52.5° | 264.9 | 272.0 | 298.1 | 330.0 | 346.5 |
| 55° | 244.8 | 255.5 | 285.0 | 318.2 | 334.7 |
| 57.5° | 224.7 | 236.6 | 269.7 | 305.2 | 322.9 |
| 60° | 203.4 | 217.6 | 255.5 | 291.0 | 308.7 |
| 62.5° | 183.3 | 198.7 | 240.1 | 275.6 | 293.3 |
| 65° | 162.0 | 179.8 | 223.5 | 259.0 | 275.6 |
| 67.5° | 139.6 | 162.0 | 204.6 | 238.9 | 255.5 |
| 70° | 117.1 | 143.1 | 185.7 | 217.6 | 233.0 |
| 72.5° | 97.0 | 124.2 | 164.4 | 191.6 | 191.6 |
| 75° | 76.9 | 104.1 | 140.7 | 143.1 | 139.6 |
| 77.5° | 59.1 | 85.2 | 110.0 | 100.5 | 102.9 |
| 80° | 43.8 | 65.1 | 69.8 | 73.3 | 75.7 |
| 82.5° | 29.6 | 43.8 | 44.9 | 47.3 | 47.3 |
| 85° | 18.9 | 22.5 | 23.7 | 22.5 | 21.3 |
| 87.5° | 8.3 | 9.5 | 7.1 | 4.7 | 3.5 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)