

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: P258938

Luminaire Tested: **14CZ-LD5-20-RDP-UNV-L82765-W2A1-U-5500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P258938
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-LD5-20-RDP-UNV-L82765-W2A1-U-5500K
Description: CRUZE 1x4 TUNABLE WHITE LED TROFFER
WITH RDP LENS
Light Source: (168) 80 CRI LEDS TUNED AT 5500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1470.0 lumens
Efficiency: N/A
Efficacy: 93.0 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

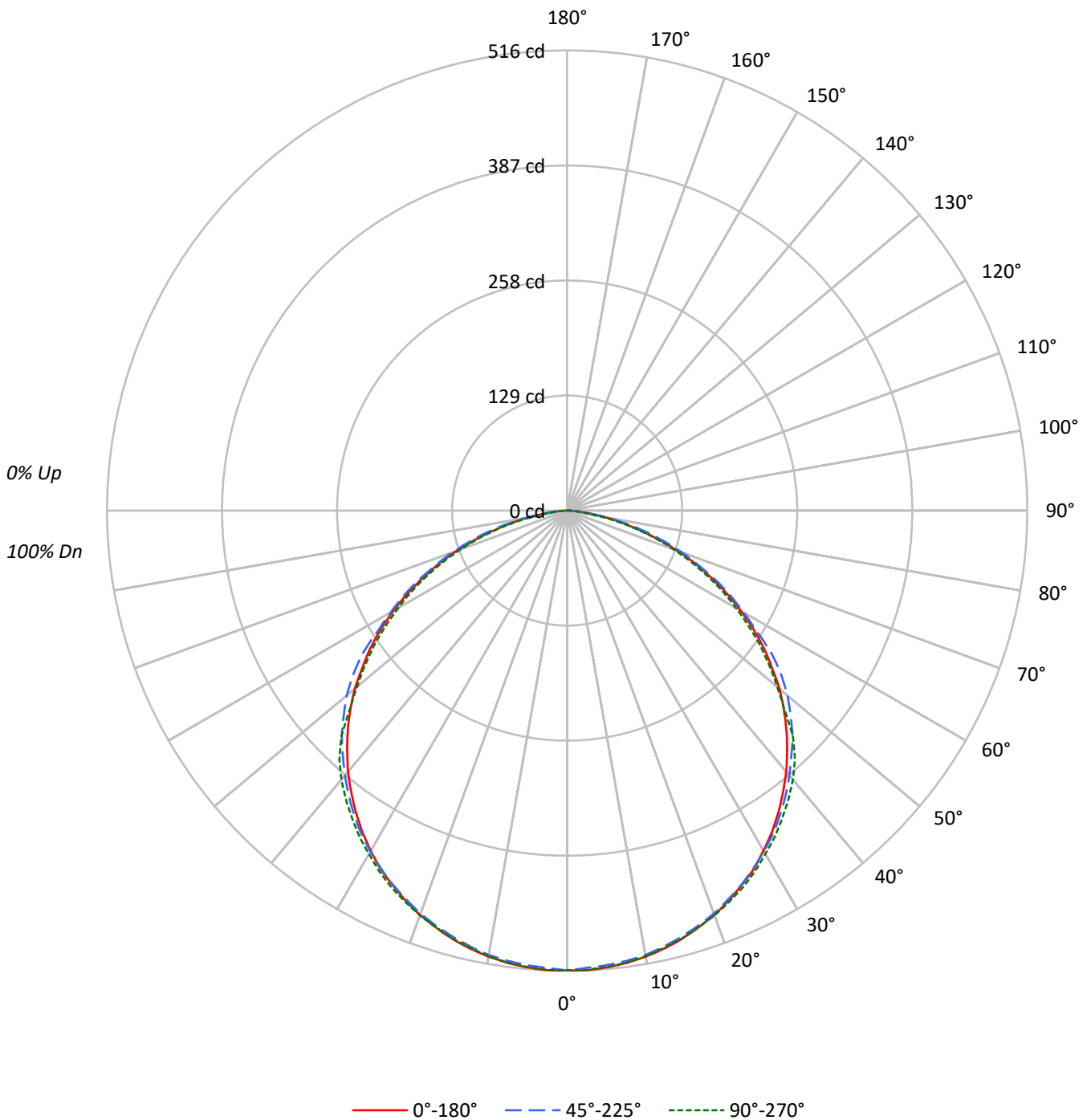
Input Watts (W): 15.81
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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° | 1387 | 1387 | 1387 |
| 5° | 1389 | 1382 | 1387 |
| 10° | 1388 | 1383 | 1386 |
| 15° | 1385 | 1379 | 1384 |
| 20° | 1382 | 1377 | 1383 |
| 25° | 1376 | 1374 | 1384 |
| 30° | 1368 | 1371 | 1381 |
| 35° | 1357 | 1368 | 1382 |
| 40° | 1343 | 1362 | 1383 |
| 45° | 1324 | 1360 | 1362 |
| 50° | 1302 | 1350 | 1288 |
| 55° | 1265 | 1315 | 1241 |
| 60° | 1212 | 1230 | 1176 |
| 65° | 1135 | 1165 | 1104 |
| 70° | 1033 | 1074 | 999 |
| 75° | 862 | 942 | 847 |
| 80° | 683 | 721 | 587 |
| 85° | 445 | 386 | 340 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 48.8 | 3.3 |
| 10°-20° | 140.2 | 9.5 |
| 20°-30° | 214.0 | 14.6 |
| 30°-40° | 260.9 | 17.7 |
| 40°-50° | 273.2 | 18.6 |
| 50°-60° | 243.0 | 16.5 |
| 60°-70° | 179.3 | 12.2 |
| 70°-80° | 92.6 | 6.3 |
| 80°-90° | 18.0 | 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° | 403.0 | 27.4 |
| 0°-40° | 663.9 | 45.2 |
| 0°-60° | 1180.0 | 80.3 |
| 0°-90° | 1470.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1470.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 516 | 516 | 516 | 516 | 516 | |
| 5° | 514 | 514 | 512 | 514 | 514 | 49 |
| 15° | 497 | 497 | 495 | 497 | 497 | 140 |
| 25° | 463 | 463 | 463 | 466 | 466 | 214 |
| 35° | 413 | 414 | 416 | 421 | 421 | 258 |
| 45° | 348 | 350 | 357 | 361 | 358 | 268 |
| 55° | 270 | 276 | 280 | 268 | 264 | 240 |
| 65° | 178 | 191 | 183 | 177 | 173 | 177 |
| 75° | 83 | 92 | 91 | 83 | 82 | 90 |
| 85° | 14 | 16 | 12 | 12 | 11 | 19 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 515.5 | 515.5 | 515.5 | 515.5 | 515.5 |
| 2.5° | 516.0 | 515.5 | 513.1 | 515.5 | 515.5 |
| 5° | 514.1 | 513.6 | 511.7 | 513.6 | 513.6 |
| 7.5° | 511.7 | 511.2 | 509.3 | 511.2 | 511.2 |
| 10° | 507.9 | 507.4 | 506.0 | 507.9 | 507.4 |
| 12.5° | 503.1 | 503.1 | 500.7 | 503.1 | 502.1 |
| 15° | 497.3 | 496.8 | 494.9 | 496.8 | 496.8 |
| 17.5° | 490.1 | 489.7 | 488.2 | 490.6 | 489.7 |
| 20° | 482.5 | 482.0 | 481.0 | 483.4 | 483.0 |
| 22.5° | 473.4 | 473.4 | 471.9 | 474.8 | 474.8 |
| 25° | 463.3 | 463.3 | 462.8 | 466.2 | 466.2 |
| 27.5° | 453.2 | 452.3 | 452.3 | 455.6 | 456.1 |
| 30° | 440.3 | 440.3 | 441.3 | 445.1 | 444.6 |
| 32.5° | 427.4 | 427.9 | 429.8 | 433.1 | 433.6 |
| 35° | 413.0 | 413.5 | 416.4 | 421.1 | 420.7 |
| 37.5° | 397.7 | 399.1 | 402.5 | 407.7 | 407.7 |
| 40° | 382.3 | 383.3 | 387.6 | 393.4 | 393.8 |
| 42.5° | 365.1 | 367.5 | 372.3 | 379.0 | 378.0 |
| 45° | 347.8 | 350.2 | 357.4 | 360.8 | 357.9 |
| 47.5° | 329.6 | 332.5 | 339.7 | 340.2 | 330.6 |
| 50° | 310.9 | 314.3 | 322.4 | 312.9 | 307.6 |
| 52.5° | 289.4 | 295.6 | 302.8 | 289.4 | 286.0 |
| 55° | 269.7 | 275.5 | 280.3 | 268.3 | 264.5 |
| 57.5° | 247.7 | 255.4 | 252.0 | 246.3 | 241.5 |
| 60° | 225.2 | 233.3 | 228.5 | 222.8 | 218.5 |
| 62.5° | 202.2 | 211.3 | 206.5 | 200.8 | 196.9 |
| 65° | 178.2 | 190.7 | 183.0 | 176.8 | 173.4 |
| 67.5° | 155.7 | 167.7 | 158.6 | 153.8 | 150.4 |
| 70° | 131.3 | 141.3 | 136.5 | 130.3 | 127.0 |
| 72.5° | 107.3 | 115.0 | 113.6 | 106.8 | 104.4 |
| 75° | 82.9 | 91.5 | 90.6 | 83.4 | 81.5 |
| 77.5° | 62.3 | 70.4 | 67.6 | 61.8 | 59.4 |
| 80° | 44.1 | 49.3 | 46.5 | 39.8 | 37.9 |
| 82.5° | 26.8 | 31.1 | 26.4 | 22.5 | 20.6 |
| 85° | 14.4 | 15.8 | 12.5 | 11.5 | 11.0 |
| 87.5° | 5.3 | 5.3 | 5.3 | 4.8 | 4.8 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)