

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: P#

Luminaire Tested: **14CZ-LD5-25-UNV-L830-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P#
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P35608)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 14CZ-LD5-25-UNV-L830-CD1-U
Description: CRUZE 1x4 LED TROFFER

Light Source: -
Ballast/Driver: -

Summary

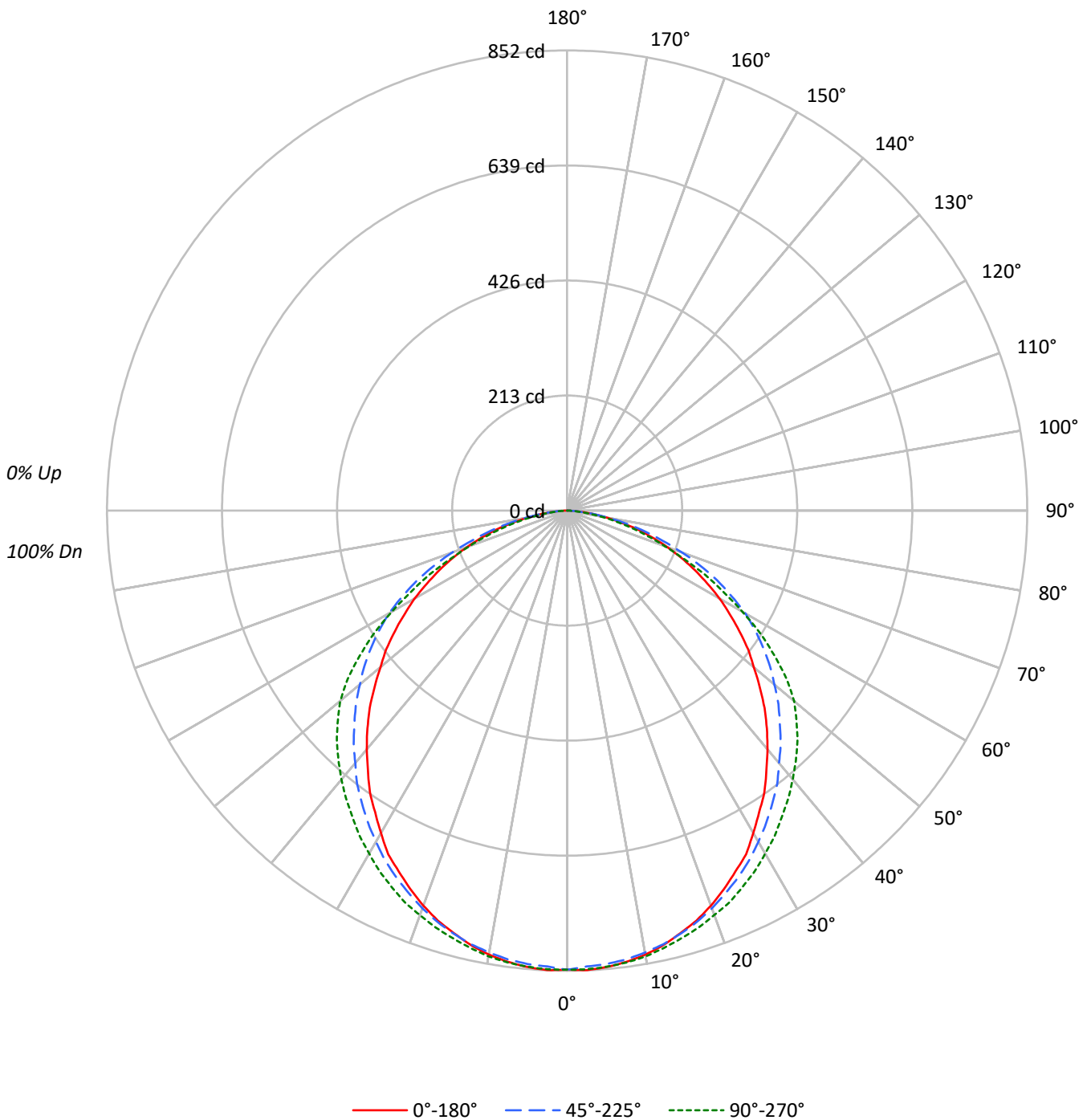
Lumens per Lamp: N/A
Luminaire Lumens: 2357.1 lumens
Efficiency: N/A
Efficacy: 115.2 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.28 / 1.37
Luminous Opening: Rectangular w/ Sides (W: 1' x L: 4' x H: 0.1')
CIE Type: Direct

Input Watts (W): 20.46
Input Voltage (V): NR
Input Current (A_{in}): 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





TEST NUMBER: P#

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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 | 66 | 88 | 78 | 71 | 65 | 75 | 69 | 64 | 73 | 67 | 63 | 70 | 66 | 62 | 59 |
| 4 | 83 | 71 | 62 | 56 | 81 | 70 | 61 | 55 | 67 | 60 | 54 | 65 | 59 | 54 | 63 | 57 | 53 | 51 |
| 5 | 76 | 63 | 54 | 48 | 74 | 62 | 54 | 48 | 60 | 53 | 47 | 58 | 52 | 46 | 56 | 51 | 46 | 44 |
| 6 | 70 | 57 | 48 | 42 | 68 | 56 | 48 | 42 | 54 | 47 | 41 | 53 | 46 | 41 | 51 | 45 | 40 | 38 |
| 7 | 65 | 52 | 43 | 37 | 63 | 51 | 43 | 37 | 49 | 42 | 36 | 48 | 41 | 36 | 47 | 40 | 36 | 34 |
| 8 | 61 | 47 | 39 | 33 | 59 | 46 | 38 | 33 | 45 | 38 | 33 | 44 | 37 | 32 | 43 | 37 | 32 | 30 |
| 9 | 57 | 43 | 35 | 30 | 55 | 43 | 35 | 29 | 42 | 34 | 29 | 40 | 34 | 29 | 39 | 33 | 29 | 27 |
| 10 | 53 | 40 | 32 | 27 | 52 | 39 | 32 | 27 | 38 | 31 | 27 | 37 | 31 | 26 | 37 | 31 | 26 | 25 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 2287 | 2287 | 2287 |
| 5° | 2286 | 2259 | 2270 |
| 10° | 2271 | 2235 | 2251 |
| 15° | 2242 | 2207 | 2224 |
| 20° | 2209 | 2174 | 2202 |
| 25° | 2164 | 2136 | 2181 |
| 30° | 2111 | 2093 | 2154 |
| 35° | 2056 | 2049 | 2127 |
| 40° | 1986 | 1997 | 2106 |
| 45° | 1919 | 1947 | 2087 |
| 50° | 1835 | 1898 | 2051 |
| 55° | 1764 | 1848 | 1925 |
| 60° | 1683 | 1778 | 1720 |
| 65° | 1577 | 1642 | 1478 |
| 70° | 1453 | 1427 | 1190 |
| 75° | 1281 | 1163 | 926 |
| 80° | 987 | 809 | 619 |
| 85° | 622 | 346 | 235 |



TEST NUMBER: P#

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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 80.4 | 3.4 |
| 10°-20° | 229.7 | 9.7 |
| 20°-30° | 346.6 | 14.7 |
| 30°-40° | 415.6 | 17.6 |
| 40°-50° | 431.3 | 18.3 |
| 50°-60° | 389.3 | 16.5 |
| 60°-70° | 283.6 | 12.0 |
| 70°-80° | 148.7 | 6.3 |
| 80°-90° | 31.8 | 1.3 |
| 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° | 656.8 | 27.9 |
| 0°-40° | 1072.4 | 45.5 |
| 0°-60° | 1893.0 | 80.3 |
| 0°-90° | 2357.1 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 2357.1 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 850 | 850 | 850 | 850 | 850 | |
| 5° | 848 | 847 | 843 | 848 | 848 | 81 |
| 15° | 810 | 810 | 811 | 820 | 820 | 229 |
| 25° | 737 | 741 | 749 | 765 | 769 | 340 |
| 35° | 637 | 643 | 662 | 687 | 693 | 397 |
| 45° | 517 | 528 | 557 | 592 | 603 | 398 |
| 55° | 390 | 403 | 444 | 470 | 469 | 348 |
| 65° | 261 | 277 | 307 | 292 | 282 | 258 |
| 75° | 135 | 154 | 149 | 128 | 122 | 142 |
| 85° | 26 | 31 | 22 | 18 | 16 | 33 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P#

CATALOG NUMBER: 14CZ-LD5-25-UNV-L830-CD1-U

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 850.0 | 850.0 | 850.0 | 850.0 | 850.0 |
| 2.5° | 851.7 | 849.4 | 844.9 | 850.5 | 850.0 |
| 5° | 848.3 | 846.6 | 842.6 | 848.3 | 847.7 |
| 7.5° | 842.6 | 841.5 | 838.2 | 844.4 | 843.8 |
| 10° | 834.8 | 833.1 | 830.8 | 837.6 | 838.2 |
| 12.5° | 824.0 | 823.5 | 822.3 | 829.7 | 829.2 |
| 15° | 810.0 | 810.0 | 811.1 | 820.1 | 819.6 |
| 17.5° | 795.9 | 795.9 | 798.7 | 808.8 | 809.4 |
| 20° | 778.4 | 779.6 | 783.5 | 795.9 | 797.0 |
| 22.5° | 758.7 | 759.8 | 766.6 | 782.3 | 785.2 |
| 25° | 737.3 | 741.2 | 749.1 | 765.4 | 768.8 |
| 27.5° | 717.5 | 718.1 | 729.9 | 747.9 | 752.5 |
| 30° | 689.3 | 697.2 | 707.9 | 728.8 | 733.3 |
| 32.5° | 661.8 | 669.7 | 686.0 | 708.5 | 714.7 |
| 35° | 636.9 | 643.2 | 662.2 | 687.1 | 692.7 |
| 37.5° | 605.9 | 616.1 | 638.6 | 664.5 | 672.4 |
| 40° | 577.2 | 586.2 | 610.5 | 639.7 | 649.9 |
| 42.5° | 547.3 | 557.5 | 585.1 | 616.6 | 626.8 |
| 45° | 516.9 | 528.1 | 556.9 | 591.8 | 603.1 |
| 47.5° | 483.6 | 497.7 | 530.4 | 565.9 | 576.1 |
| 50° | 451.4 | 466.2 | 501.1 | 538.3 | 548.4 |
| 52.5° | 422.2 | 435.1 | 473.5 | 507.9 | 512.3 |
| 55° | 389.5 | 403.0 | 443.6 | 470.1 | 468.9 |
| 57.5° | 356.8 | 372.0 | 412.6 | 428.9 | 424.5 |
| 60° | 326.3 | 340.5 | 381.0 | 384.4 | 374.9 |
| 62.5° | 292.5 | 308.8 | 343.2 | 338.2 | 326.3 |
| 65° | 261.0 | 276.7 | 306.7 | 292.5 | 281.9 |
| 67.5° | 228.9 | 245.8 | 267.1 | 246.3 | 233.9 |
| 70° | 197.3 | 217.6 | 225.4 | 202.9 | 192.8 |
| 72.5° | 165.1 | 186.6 | 186.0 | 164.5 | 156.1 |
| 75° | 134.7 | 153.9 | 148.8 | 128.5 | 122.3 |
| 77.5° | 102.6 | 121.8 | 112.2 | 97.0 | 91.3 |
| 80° | 72.7 | 90.7 | 78.4 | 66.5 | 62.6 |
| 82.5° | 49.6 | 60.3 | 49.0 | 38.9 | 37.2 |
| 85° | 25.9 | 31.0 | 22.5 | 17.5 | 16.3 |
| 87.5° | 9.6 | 9.0 | 7.9 | 7.3 | 7.3 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)