

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: P258541

Luminaire Tested: **14CZ-LD5-25-UNV-L83050-W2A1-U-3000K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P258541
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P35573)
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-L83050-W2A1-U-3000K
Description: CRUZE 1x4 TUNABLE WHITE LED TROFFER WITH RIBBED LENS
Light Source: (168) 80 CRI LEDS TUNED AT 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2324.7 lumens
Efficiency: N/A
Efficacy: 127.5 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.28 / 1.37
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

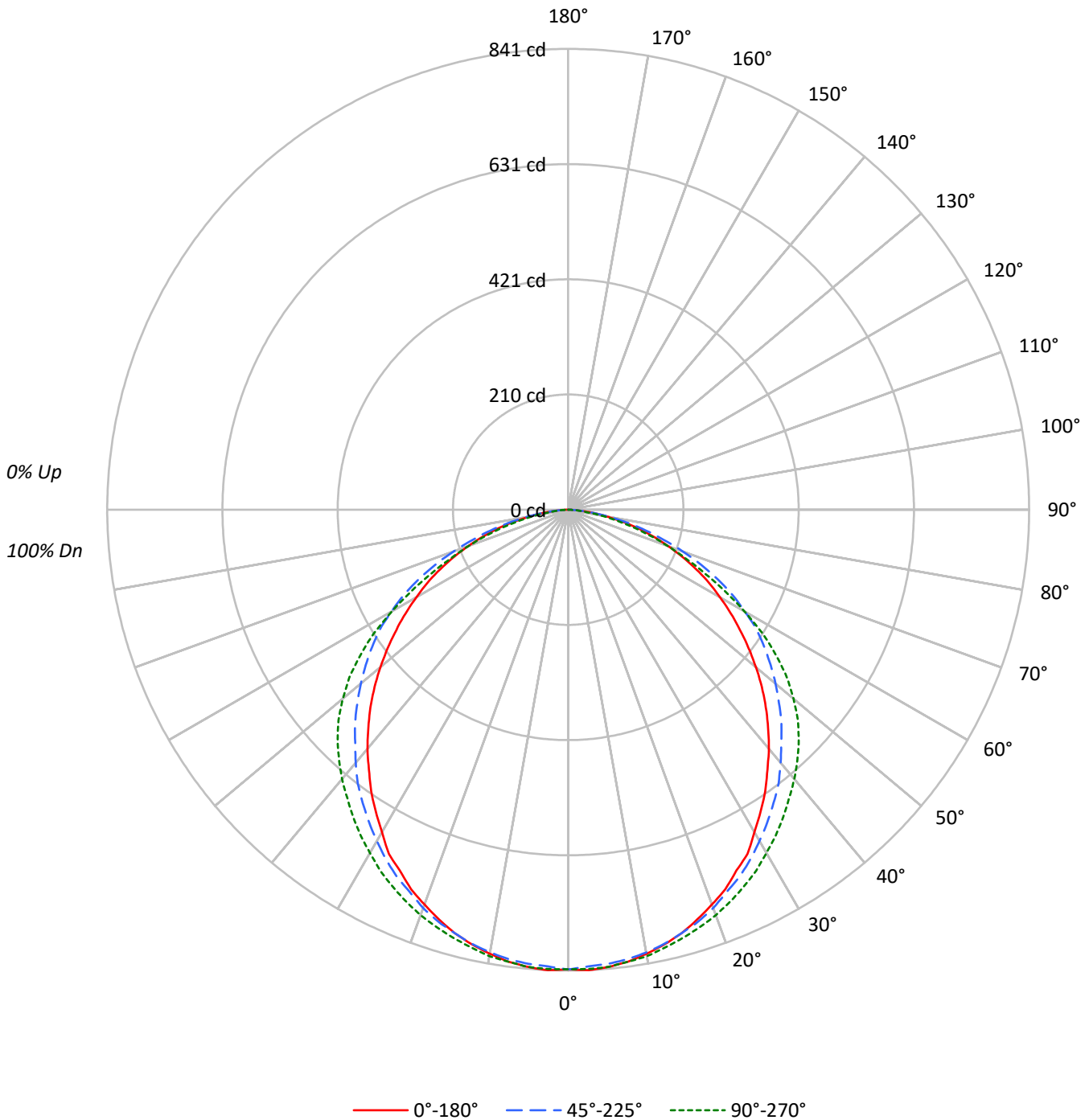
Input Watts (W): 18.228
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P258541

CATALOG NUMBER: 14CZ-LD5-25-UNV-L83050-W2A1-U-3000K

Luminous Intensity Polar Plot





TEST NUMBER: P258541

CATALOG NUMBER: 14CZ-LD5-25-UNV-L83050-W2A1-U-3000K

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° | 2257 | 2257 | 2257 |
| 5° | 2263 | 2247 | 2263 |
| 10° | 2249 | 2242 | 2261 |
| 15° | 2229 | 2229 | 2254 |
| 20° | 2196 | 2215 | 2255 |
| 25° | 2157 | 2195 | 2253 |
| 30° | 2112 | 2169 | 2247 |
| 35° | 2059 | 2146 | 2248 |
| 40° | 2001 | 2118 | 2255 |
| 45° | 1941 | 2093 | 2264 |
| 50° | 1871 | 2068 | 2246 |
| 55° | 1796 | 2049 | 2172 |
| 60° | 1721 | 2005 | 1998 |
| 65° | 1642 | 1919 | 1752 |
| 70° | 1524 | 1749 | 1515 |
| 75° | 1382 | 1525 | 1251 |
| 80° | 1102 | 1207 | 924 |
| 85° | 778 | 673 | 531 |



TEST NUMBER: P258541

CATALOG NUMBER: 14CZ-LD5-25-UNV-L83050-W2A1-U-3000K

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 79.4 | 3.4 |
| 10°-20° | 226.8 | 9.8 |
| 20°-30° | 341.9 | 14.7 |
| 30°-40° | 409.8 | 17.6 |
| 40°-50° | 425.3 | 18.3 |
| 50°-60° | 383.6 | 16.5 |
| 60°-70° | 279.8 | 12.0 |
| 70°-80° | 146.8 | 6.3 |
| 80°-90° | 31.3 | 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° | 648.0 | 27.9 |
| 0°-40° | 1057.9 | 45.5 |
| 0°-60° | 1866.8 | 80.3 |
| 0°-90° | 2324.7 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 2324.7 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 839 | 839 | 839 | 839 | 839 | |
| 5° | 838 | 836 | 832 | 838 | 838 | 79 |
| 15° | 800 | 800 | 800 | 809 | 809 | 225 |
| 25° | 727 | 730 | 739 | 755 | 759 | 335 |
| 35° | 627 | 634 | 653 | 677 | 684 | 392 |
| 45° | 510 | 520 | 550 | 583 | 595 | 393 |
| 55° | 383 | 396 | 437 | 465 | 463 | 343 |
| 65° | 258 | 273 | 301 | 290 | 275 | 255 |
| 75° | 133 | 151 | 147 | 127 | 120 | 139 |
| 85° | 25 | 31 | 22 | 18 | 17 | 32 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P258541

CATALOG NUMBER: 14CZ-LD5-25-UNV-L83050-W2A1-U-3000K

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 838.9 | 838.9 | 838.9 | 838.9 | 838.9 |
| 2.5° | 841.2 | 838.9 | 834.3 | 838.9 | 838.9 |
| 5° | 837.8 | 835.5 | 832.0 | 837.8 | 837.8 |
| 7.5° | 832.0 | 829.7 | 827.5 | 833.2 | 832.0 |
| 10° | 822.9 | 821.7 | 820.6 | 827.5 | 827.5 |
| 12.5° | 812.6 | 812.6 | 811.4 | 819.4 | 818.3 |
| 15° | 800.0 | 800.0 | 800.0 | 809.1 | 809.1 |
| 17.5° | 783.9 | 786.2 | 788.5 | 798.8 | 798.8 |
| 20° | 766.7 | 769.0 | 773.6 | 786.2 | 787.3 |
| 22.5° | 749.5 | 750.7 | 755.3 | 770.2 | 773.6 |
| 25° | 726.6 | 730.0 | 739.2 | 755.3 | 758.7 |
| 27.5° | 708.3 | 709.4 | 719.7 | 738.1 | 742.6 |
| 30° | 679.6 | 687.6 | 698.0 | 718.6 | 723.2 |
| 32.5° | 653.3 | 660.1 | 676.2 | 698.0 | 704.8 |
| 35° | 626.9 | 633.8 | 653.3 | 677.3 | 684.2 |
| 37.5° | 597.1 | 607.4 | 630.3 | 654.4 | 662.4 |
| 40° | 569.6 | 578.8 | 602.8 | 632.6 | 641.8 |
| 42.5° | 539.8 | 549.0 | 575.3 | 608.6 | 618.9 |
| 45° | 510.0 | 520.3 | 550.1 | 583.3 | 594.8 |
| 47.5° | 479.1 | 490.5 | 521.5 | 558.1 | 568.4 |
| 50° | 447.0 | 459.6 | 494.0 | 531.8 | 536.4 |
| 52.5° | 414.9 | 428.6 | 465.3 | 498.5 | 503.1 |
| 55° | 382.8 | 396.5 | 436.7 | 465.3 | 463.0 |
| 57.5° | 351.8 | 366.7 | 408.0 | 422.9 | 420.6 |
| 60° | 319.8 | 335.8 | 372.5 | 379.3 | 371.3 |
| 62.5° | 290.0 | 304.9 | 339.2 | 333.5 | 323.2 |
| 65° | 257.9 | 272.8 | 301.4 | 290.0 | 275.1 |
| 67.5° | 225.8 | 244.1 | 262.4 | 243.0 | 231.5 |
| 70° | 193.7 | 214.3 | 222.3 | 202.9 | 192.5 |
| 72.5° | 162.7 | 184.5 | 182.2 | 162.7 | 155.9 |
| 75° | 132.9 | 151.3 | 146.7 | 127.2 | 120.3 |
| 77.5° | 100.9 | 121.5 | 111.2 | 95.1 | 89.4 |
| 80° | 71.1 | 89.4 | 77.9 | 64.2 | 59.6 |
| 82.5° | 47.0 | 59.6 | 48.1 | 37.8 | 34.4 |
| 85° | 25.2 | 30.9 | 21.8 | 18.3 | 17.2 |
| 87.5° | 10.3 | 9.2 | 8.0 | 8.0 | 6.9 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)