

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: P263891

Luminaire Tested: **24CZ-LD5-40SE-RDP-UNV-L92765-W2A1-U-5500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P263891
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25696)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ-LD5-40SE-RDP-UNV-L92765-W2A1-U-5500K
Description: CRUZE 2x4 TUNABLE WHITE LED TROFFER
WITH RDP LENS
Light Source: (168) 90 CRI LEDS TUNED AT 5500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2640.9 lumens
Efficiency: N/A
Efficacy: 84.5 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

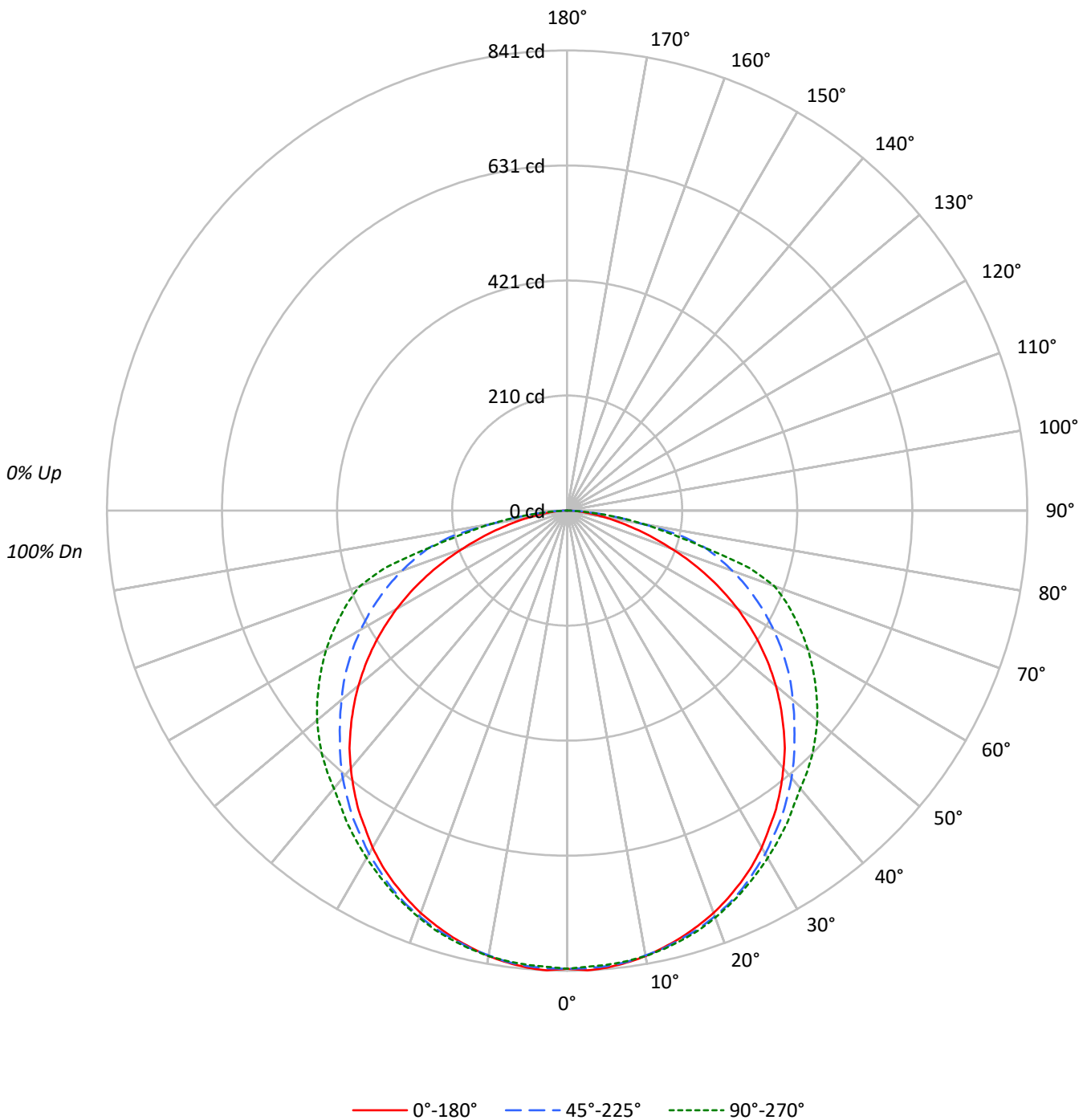
Input Watts (W): 31.248
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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 | 98 | 94 | 105 | 101 | 97 | 93 | 96 | 93 | 90 | 92 | 90 | 87 | 89 | 87 | 84 | 82 |
| 2 | 98 | 89 | 82 | 76 | 95 | 87 | 80 | 75 | 83 | 78 | 73 | 80 | 75 | 71 | 77 | 73 | 70 | 67 |
| 3 | 89 | 78 | 69 | 62 | 86 | 76 | 68 | 62 | 73 | 66 | 60 | 70 | 64 | 59 | 67 | 62 | 58 | 56 |
| 4 | 81 | 68 | 59 | 52 | 78 | 67 | 58 | 52 | 64 | 57 | 51 | 62 | 56 | 50 | 60 | 54 | 50 | 47 |
| 5 | 74 | 61 | 51 | 45 | 72 | 60 | 51 | 44 | 57 | 50 | 44 | 55 | 49 | 43 | 54 | 48 | 43 | 41 |
| 6 | 68 | 55 | 45 | 39 | 66 | 54 | 45 | 38 | 52 | 44 | 38 | 50 | 43 | 38 | 48 | 42 | 37 | 35 |
| 7 | 63 | 49 | 40 | 34 | 61 | 48 | 40 | 34 | 47 | 39 | 34 | 45 | 38 | 33 | 44 | 38 | 33 | 31 |
| 8 | 59 | 45 | 36 | 30 | 57 | 44 | 36 | 30 | 43 | 35 | 30 | 42 | 35 | 30 | 40 | 34 | 29 | 27 |
| 9 | 55 | 41 | 33 | 27 | 53 | 41 | 32 | 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° | 1126 | 1126 | 1126 |
| 5° | 1133 | 1129 | 1125 |
| 10° | 1130 | 1128 | 1130 |
| 15° | 1125 | 1128 | 1132 |
| 20° | 1121 | 1130 | 1134 |
| 25° | 1114 | 1129 | 1135 |
| 30° | 1105 | 1125 | 1139 |
| 35° | 1093 | 1123 | 1149 |
| 40° | 1080 | 1121 | 1165 |
| 45° | 1064 | 1118 | 1205 |
| 50° | 1042 | 1127 | 1249 |
| 55° | 1012 | 1147 | 1299 |
| 60° | 969 | 1172 | 1368 |
| 65° | 902 | 1209 | 1457 |
| 70° | 798 | 1263 | 1585 |
| 75° | 669 | 1352 | 1331 |
| 80° | 534 | 1068 | 1108 |
| 85° | 421 | 722 | 662 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 79.4 | 3.0 |
| 10°-20° | 228.5 | 8.7 |
| 20°-30° | 349.1 | 13.2 |
| 30°-40° | 426.7 | 16.2 |
| 40°-50° | 456.8 | 17.3 |
| 50°-60° | 438.1 | 16.6 |
| 60°-70° | 369.9 | 14.0 |
| 70°-80° | 236.4 | 9.0 |
| 80°-90° | 55.9 | 2.1 |
| 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° | 657.0 | 24.9 |
| 0°-40° | 1083.7 | 41.0 |
| 0°-60° | 1978.7 | 74.9 |
| 0°-90° | 2640.9 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 2640.9 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 837 | 837 | 837 | 837 | 837 | |
| 5° | 838 | 833 | 836 | 835 | 833 | 80 |
| 15° | 807 | 805 | 810 | 812 | 812 | 228 |
| 25° | 750 | 749 | 760 | 763 | 764 | 346 |
| 35° | 666 | 671 | 684 | 693 | 699 | 416 |
| 45° | 559 | 568 | 588 | 615 | 633 | 431 |
| 55° | 432 | 446 | 489 | 533 | 554 | 385 |
| 65° | 283 | 311 | 380 | 433 | 458 | 280 |
| 75° | 129 | 183 | 260 | 265 | 256 | 139 |
| 85° | 27 | 46 | 47 | 46 | 43 | 33 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 837.2 | 837.2 | 837.2 | 837.2 | 837.2 |
| 2.5° | 841.1 | 835.9 | 837.2 | 837.2 | 834.6 |
| 5° | 838.5 | 833.3 | 835.9 | 834.6 | 833.3 |
| 7.5° | 833.3 | 829.4 | 832.0 | 832.0 | 830.7 |
| 10° | 826.8 | 822.9 | 825.5 | 826.8 | 826.8 |
| 12.5° | 817.7 | 815.1 | 819.0 | 819.0 | 820.3 |
| 15° | 807.3 | 804.7 | 809.9 | 812.5 | 812.5 |
| 17.5° | 795.6 | 794.3 | 800.8 | 802.1 | 803.4 |
| 20° | 782.6 | 781.3 | 789.1 | 789.1 | 791.7 |
| 22.5° | 767.0 | 765.7 | 776.1 | 776.1 | 778.7 |
| 25° | 750.1 | 748.8 | 760.5 | 763.1 | 764.4 |
| 27.5° | 731.9 | 730.6 | 742.3 | 746.2 | 748.8 |
| 30° | 711.1 | 711.1 | 724.1 | 729.3 | 733.2 |
| 32.5° | 687.7 | 691.6 | 703.3 | 711.1 | 716.3 |
| 35° | 665.6 | 670.8 | 683.8 | 692.9 | 699.4 |
| 37.5° | 640.9 | 646.1 | 660.4 | 672.1 | 679.9 |
| 40° | 614.9 | 621.4 | 638.3 | 651.3 | 663.0 |
| 42.5° | 588.9 | 595.4 | 613.6 | 633.1 | 648.7 |
| 45° | 559.0 | 568.1 | 587.6 | 614.9 | 633.1 |
| 47.5° | 529.1 | 538.2 | 562.9 | 596.7 | 614.9 |
| 50° | 497.9 | 508.3 | 538.2 | 577.2 | 596.7 |
| 52.5° | 465.4 | 477.1 | 514.8 | 556.4 | 575.9 |
| 55° | 431.6 | 445.9 | 488.8 | 533.0 | 553.8 |
| 57.5° | 396.5 | 412.1 | 462.8 | 509.6 | 531.7 |
| 60° | 360.1 | 379.6 | 435.5 | 484.9 | 508.3 |
| 62.5° | 322.4 | 345.8 | 408.2 | 458.9 | 483.6 |
| 65° | 283.4 | 310.7 | 379.6 | 432.9 | 457.6 |
| 67.5° | 243.1 | 279.5 | 351.0 | 406.9 | 431.6 |
| 70° | 202.8 | 245.7 | 321.1 | 378.3 | 403.0 |
| 72.5° | 165.1 | 214.5 | 291.2 | 344.5 | 349.7 |
| 75° | 128.7 | 183.3 | 260.0 | 265.2 | 256.1 |
| 77.5° | 96.2 | 152.1 | 214.5 | 191.1 | 189.8 |
| 80° | 68.9 | 122.2 | 137.8 | 141.7 | 143.0 |
| 82.5° | 45.5 | 92.3 | 89.7 | 92.3 | 91.0 |
| 85° | 27.3 | 45.5 | 46.8 | 45.5 | 42.9 |
| 87.5° | 13.0 | 16.9 | 13.0 | 11.7 | 10.4 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)