

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: P263906

Luminaire Tested: **24CZ-LD5-50SE-RDP-UNV-L92765-W2A1-U-4000K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P263906
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-LD5-50SE-RDP-UNV-L92765-W2A1-U-4000K
Description: CRUZE 2x4 TUNABLE WHITE LED TROFFER
WITH RDP LENS
Light Source: (168) 90 CRI LEDS TUNED AT 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3071.0 lumens
Efficiency: N/A
Efficacy: 76.4 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

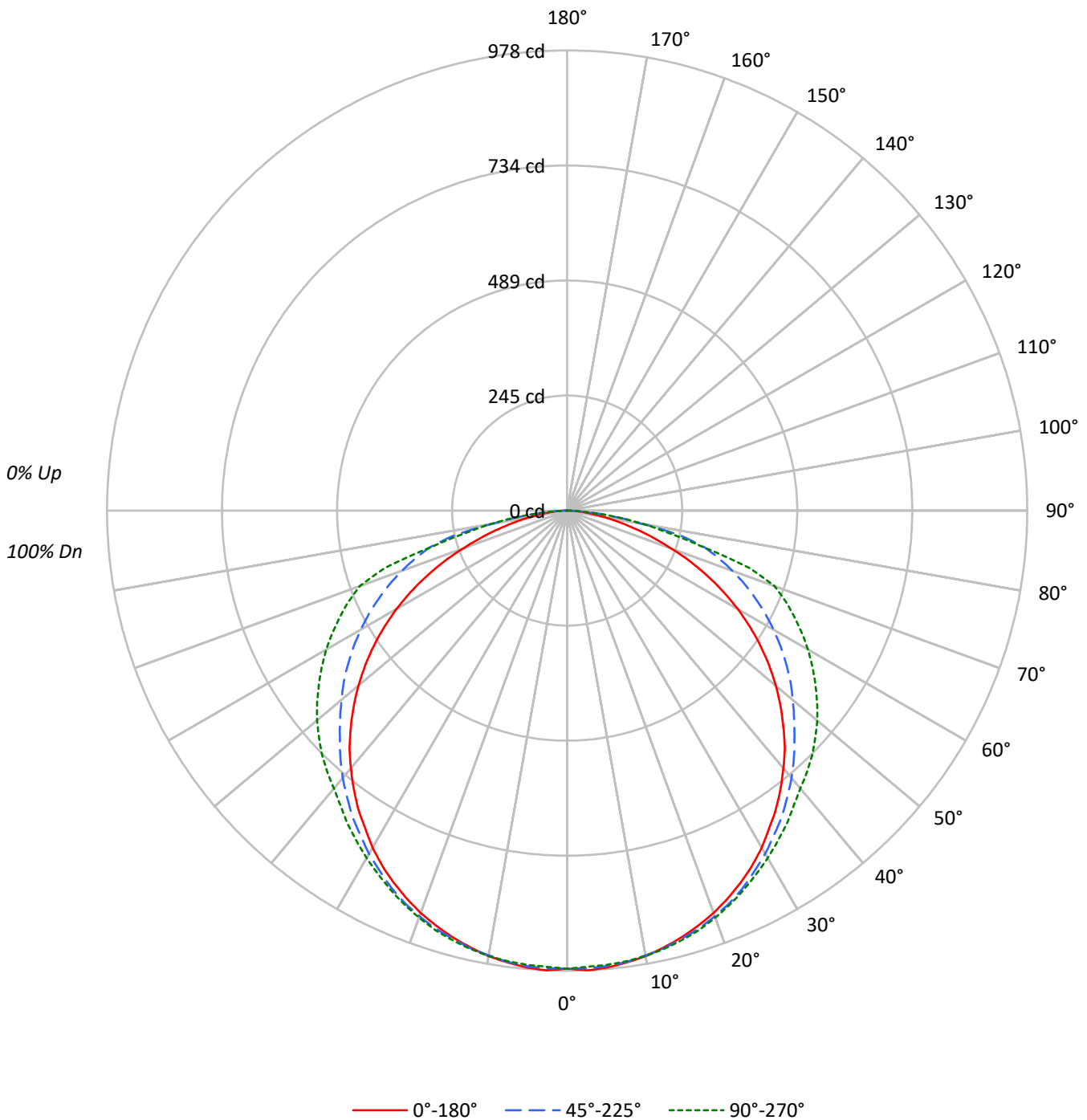
Input Watts (W): 40.176
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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° | 1310 | 1310 | 1310 |
| 5° | 1317 | 1313 | 1309 |
| 10° | 1314 | 1311 | 1314 |
| 15° | 1308 | 1312 | 1316 |
| 20° | 1303 | 1314 | 1318 |
| 25° | 1295 | 1313 | 1320 |
| 30° | 1285 | 1308 | 1325 |
| 35° | 1271 | 1306 | 1336 |
| 40° | 1256 | 1304 | 1354 |
| 45° | 1237 | 1300 | 1401 |
| 50° | 1212 | 1310 | 1452 |
| 55° | 1177 | 1333 | 1511 |
| 60° | 1127 | 1363 | 1591 |
| 65° | 1049 | 1405 | 1694 |
| 70° | 928 | 1469 | 1843 |
| 75° | 778 | 1572 | 1548 |
| 80° | 621 | 1241 | 1289 |
| 85° | 489 | 840 | 770 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 92.3 | 3.0 |
| 10°-20° | 265.7 | 8.7 |
| 20°-30° | 405.9 | 13.2 |
| 30°-40° | 496.2 | 16.2 |
| 40°-50° | 531.2 | 17.3 |
| 50°-60° | 509.5 | 16.6 |
| 60°-70° | 430.2 | 14.0 |
| 70°-80° | 274.9 | 9.0 |
| 80°-90° | 65.0 | 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° | 764.0 | 24.9 |
| 0°-40° | 1260.2 | 41.0 |
| 0°-60° | 2300.9 | 74.9 |
| 0°-90° | 3071.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 3071.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 974 | 974 | 974 | 974 | 974 | |
| 5° | 975 | 969 | 972 | 970 | 969 | 93 |
| 15° | 939 | 936 | 942 | 945 | 945 | 265 |
| 25° | 872 | 871 | 884 | 887 | 889 | 402 |
| 35° | 774 | 780 | 795 | 806 | 813 | 484 |
| 45° | 650 | 661 | 683 | 715 | 736 | 501 |
| 55° | 502 | 518 | 568 | 620 | 644 | 448 |
| 65° | 330 | 361 | 441 | 503 | 532 | 325 |
| 75° | 150 | 213 | 302 | 308 | 298 | 161 |
| 85° | 32 | 53 | 54 | 53 | 50 | 38 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 973.5 | 973.5 | 973.5 | 973.5 | 973.5 |
| 2.5° | 978.1 | 972.0 | 973.5 | 973.5 | 970.5 |
| 5° | 975.0 | 969.0 | 972.0 | 970.5 | 969.0 |
| 7.5° | 969.0 | 964.5 | 967.5 | 967.5 | 966.0 |
| 10° | 961.4 | 956.9 | 959.9 | 961.4 | 961.4 |
| 12.5° | 950.9 | 947.8 | 952.4 | 952.4 | 953.9 |
| 15° | 938.8 | 935.7 | 941.8 | 944.8 | 944.8 |
| 17.5° | 925.2 | 923.6 | 931.2 | 932.7 | 934.2 |
| 20° | 910.0 | 908.5 | 917.6 | 917.6 | 920.6 |
| 22.5° | 891.9 | 890.4 | 902.5 | 902.5 | 905.5 |
| 25° | 872.2 | 870.7 | 884.3 | 887.4 | 888.9 |
| 27.5° | 851.1 | 849.6 | 863.2 | 867.7 | 870.7 |
| 30° | 826.9 | 826.9 | 842.0 | 848.1 | 852.6 |
| 32.5° | 799.7 | 804.2 | 817.8 | 826.9 | 832.9 |
| 35° | 774.0 | 780.0 | 795.2 | 805.7 | 813.3 |
| 37.5° | 745.3 | 751.3 | 767.9 | 781.5 | 790.6 |
| 40° | 715.0 | 722.6 | 742.2 | 757.4 | 771.0 |
| 42.5° | 684.8 | 692.4 | 713.5 | 736.2 | 754.3 |
| 45° | 650.0 | 660.6 | 683.3 | 715.0 | 736.2 |
| 47.5° | 615.3 | 625.8 | 654.6 | 693.9 | 715.0 |
| 50° | 579.0 | 591.1 | 625.8 | 671.2 | 693.9 |
| 52.5° | 541.2 | 554.8 | 598.6 | 647.0 | 669.7 |
| 55° | 501.9 | 518.5 | 568.4 | 619.8 | 644.0 |
| 57.5° | 461.1 | 479.2 | 538.2 | 592.6 | 618.3 |
| 60° | 418.7 | 441.4 | 506.4 | 563.9 | 591.1 |
| 62.5° | 374.9 | 402.1 | 474.7 | 533.6 | 562.4 |
| 65° | 329.5 | 361.3 | 441.4 | 503.4 | 532.1 |
| 67.5° | 282.7 | 325.0 | 408.2 | 473.2 | 501.9 |
| 70° | 235.8 | 285.7 | 373.4 | 439.9 | 468.6 |
| 72.5° | 192.0 | 249.4 | 338.6 | 400.6 | 406.6 |
| 75° | 149.7 | 213.1 | 302.3 | 308.4 | 297.8 |
| 77.5° | 111.9 | 176.9 | 249.4 | 222.2 | 220.7 |
| 80° | 80.1 | 142.1 | 160.2 | 164.8 | 166.3 |
| 82.5° | 52.9 | 107.3 | 104.3 | 107.3 | 105.8 |
| 85° | 31.7 | 52.9 | 54.4 | 52.9 | 49.9 |
| 87.5° | 15.1 | 19.7 | 15.1 | 13.6 | 12.1 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)