

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: P263240

Luminaire Tested: **24CZ-LD5-40-SQP-UNV-L82765-W2A1-U-2700K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P263240
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25695)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ-LD5-40-SQP-UNV-L82765-W2A1-U-2700K
Description: CRUZE 2x4 TUNABLE WHITE LED TROFFER
WITH SQP LENS
Light Source: (336) 80 CRI LEDS TUNED AT 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2474.0 lumens
Efficiency: N/A
Efficacy: 87.5 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.31 / 1.42
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

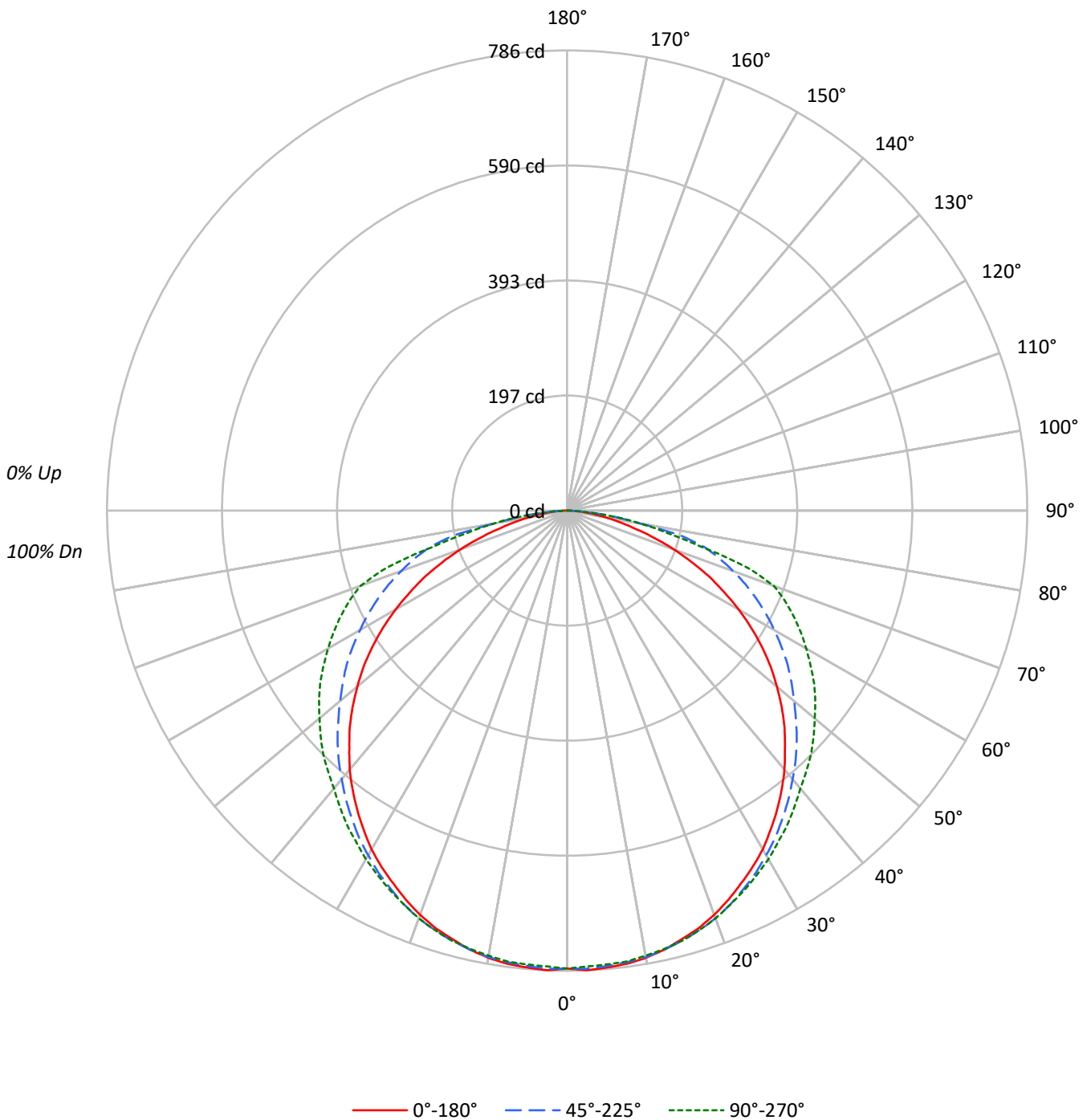
Input Watts (W): 28.272
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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 | 63 | 58 | 56 |
| 4 | 81 | 68 | 59 | 52 | 79 | 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 | 62 | 49 | 40 | 34 | 47 | 39 | 34 | 45 | 39 | 33 | 44 | 38 | 33 | 31 |
| 8 | 59 | 45 | 36 | 30 | 57 | 44 | 36 | 30 | 43 | 35 | 30 | 42 | 35 | 30 | 40 | 34 | 29 | 28 |
| 9 | 55 | 41 | 33 | 27 | 54 | 41 | 33 | 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° | 1052 | 1052 | 1052 |
| 5° | 1058 | 1055 | 1051 |
| 10° | 1060 | 1058 | 1055 |
| 15° | 1056 | 1059 | 1059 |
| 20° | 1052 | 1061 | 1061 |
| 25° | 1043 | 1059 | 1062 |
| 30° | 1038 | 1056 | 1068 |
| 35° | 1026 | 1054 | 1077 |
| 40° | 1015 | 1053 | 1089 |
| 45° | 999 | 1055 | 1121 |
| 50° | 979 | 1059 | 1156 |
| 55° | 953 | 1079 | 1208 |
| 60° | 911 | 1100 | 1269 |
| 65° | 855 | 1135 | 1359 |
| 70° | 764 | 1186 | 1478 |
| 75° | 631 | 1269 | 1222 |
| 80° | 515 | 980 | 990 |
| 85° | 414 | 651 | 611 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 74.3 | 3.0 |
| 10°-20° | 214.3 | 8.7 |
| 20°-30° | 327.6 | 13.2 |
| 30°-40° | 400.6 | 16.2 |
| 40°-50° | 428.7 | 17.3 |
| 50°-60° | 410.5 | 16.6 |
| 60°-70° | 347.2 | 14.0 |
| 70°-80° | 220.1 | 8.9 |
| 80°-90° | 50.6 | 2.0 |
| 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° | 616.2 | 24.9 |
| 0°-40° | 1016.8 | 41.1 |
| 0°-60° | 1856.0 | 75.0 |
| 0°-90° | 2474.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 2474.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 782 | 782 | 782 | 782 | 782 | |
| 5° | 783 | 780 | 781 | 780 | 778 | 75 |
| 15° | 758 | 756 | 760 | 760 | 760 | 214 |
| 25° | 703 | 703 | 713 | 716 | 716 | 324 |
| 35° | 625 | 629 | 642 | 650 | 656 | 391 |
| 45° | 525 | 534 | 555 | 578 | 589 | 405 |
| 55° | 406 | 419 | 460 | 498 | 515 | 362 |
| 65° | 268 | 294 | 356 | 405 | 427 | 264 |
| 75° | 121 | 171 | 244 | 243 | 235 | 132 |
| 85° | 27 | 41 | 42 | 38 | 40 | 32 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 782.1 | 782.1 | 782.1 | 782.1 | 782.1 |
| 2.5° | 785.9 | 782.1 | 783.4 | 782.1 | 779.5 |
| 5° | 783.4 | 779.5 | 780.8 | 779.5 | 778.2 |
| 7.5° | 780.8 | 777.0 | 778.2 | 777.0 | 777.0 |
| 10° | 775.7 | 771.9 | 774.4 | 773.1 | 771.9 |
| 12.5° | 768.0 | 765.5 | 768.0 | 766.7 | 766.7 |
| 15° | 757.8 | 756.5 | 760.4 | 760.4 | 760.4 |
| 17.5° | 747.6 | 746.3 | 751.4 | 751.4 | 751.4 |
| 20° | 734.8 | 733.5 | 741.2 | 741.2 | 741.2 |
| 22.5° | 719.5 | 718.2 | 728.4 | 728.4 | 728.4 |
| 25° | 702.8 | 702.8 | 713.1 | 715.6 | 715.6 |
| 27.5° | 686.2 | 686.2 | 697.7 | 701.6 | 701.6 |
| 30° | 668.3 | 668.3 | 679.8 | 685.0 | 687.5 |
| 32.5° | 646.6 | 649.2 | 662.0 | 668.3 | 670.9 |
| 35° | 624.9 | 628.7 | 641.5 | 650.5 | 655.6 |
| 37.5° | 601.9 | 605.7 | 621.1 | 631.3 | 637.7 |
| 40° | 577.6 | 582.7 | 599.3 | 612.1 | 619.8 |
| 42.5° | 550.8 | 558.4 | 577.6 | 594.2 | 604.4 |
| 45° | 525.2 | 534.2 | 554.6 | 577.6 | 589.1 |
| 47.5° | 497.1 | 507.3 | 530.3 | 559.7 | 571.2 |
| 50° | 467.7 | 477.9 | 506.1 | 539.3 | 552.1 |
| 52.5° | 438.3 | 449.8 | 483.0 | 518.8 | 534.2 |
| 55° | 406.4 | 419.2 | 460.0 | 498.4 | 515.0 |
| 57.5° | 373.1 | 388.5 | 434.5 | 475.4 | 493.3 |
| 60° | 338.6 | 357.8 | 408.9 | 452.4 | 471.5 |
| 62.5° | 302.9 | 325.9 | 383.4 | 429.4 | 449.8 |
| 65° | 268.4 | 293.9 | 356.5 | 405.1 | 426.8 |
| 67.5° | 231.3 | 263.2 | 329.7 | 382.1 | 402.5 |
| 70° | 194.2 | 231.3 | 301.6 | 355.3 | 375.7 |
| 72.5° | 157.2 | 201.9 | 273.5 | 322.0 | 322.0 |
| 75° | 121.4 | 171.2 | 244.1 | 242.8 | 235.1 |
| 77.5° | 92.0 | 143.1 | 200.6 | 171.2 | 172.5 |
| 80° | 66.5 | 115.0 | 126.5 | 126.5 | 127.8 |
| 82.5° | 44.7 | 88.2 | 81.8 | 80.5 | 83.1 |
| 85° | 26.8 | 40.9 | 42.2 | 38.3 | 39.6 |
| 87.5° | 12.8 | 14.1 | 11.5 | 7.7 | 7.7 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)