

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: P263675

Luminaire Tested: **24CZ-LD5-45-RDP-UNV-L82765-W2A1-U-5500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P263675
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-LD5-45-RDP-UNV-L82765-W2A1-U-5500K
Description: CRUZE 2x4 TUNABLE WHITE LED TROFFER
WITH RDP LENS
Light Source: (336) 80 CRI LEDS TUNED AT 5500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3241.0 lumens
Efficiency: N/A
Efficacy: 100.4 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

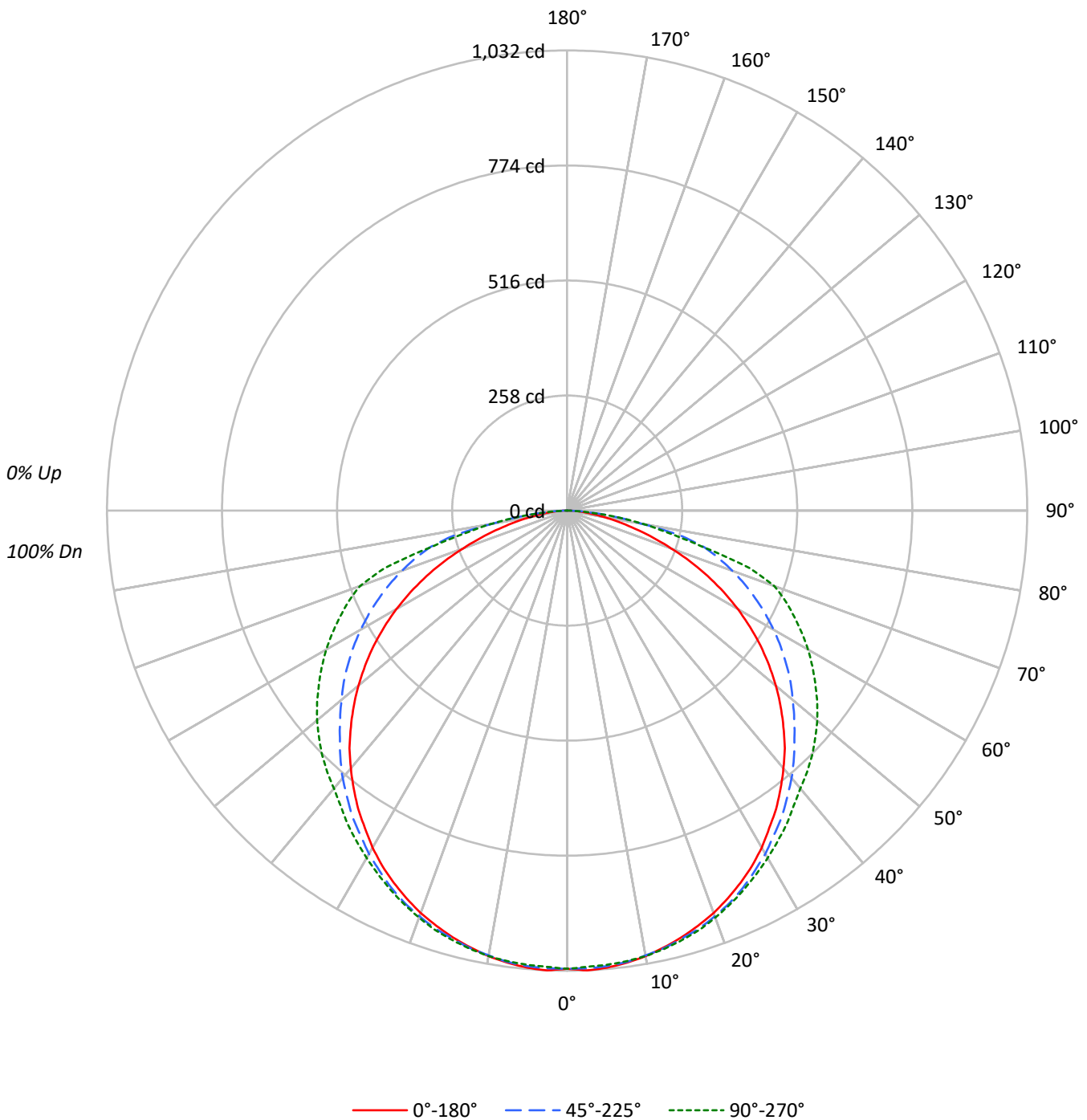
Input Watts (W): 32.271
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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 | 61 | 73 | 66 | 60 | 70 | 64 | 59 | 67 | 62 | 58 | 56 |
| 4 | 81 | 68 | 59 | 52 | 78 | 67 | 58 | 52 | 64 | 57 | 51 | 62 | 55 | 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° | 1382 | 1382 | 1382 |
| 5° | 1390 | 1385 | 1381 |
| 10° | 1386 | 1384 | 1386 |
| 15° | 1380 | 1384 | 1389 |
| 20° | 1375 | 1387 | 1391 |
| 25° | 1367 | 1386 | 1393 |
| 30° | 1356 | 1381 | 1398 |
| 35° | 1342 | 1378 | 1410 |
| 40° | 1325 | 1376 | 1429 |
| 45° | 1305 | 1372 | 1478 |
| 50° | 1279 | 1383 | 1533 |
| 55° | 1243 | 1407 | 1594 |
| 60° | 1189 | 1438 | 1679 |
| 65° | 1107 | 1483 | 1788 |
| 70° | 979 | 1550 | 1946 |
| 75° | 821 | 1659 | 1634 |
| 80° | 656 | 1310 | 1360 |
| 85° | 517 | 886 | 812 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 97.4 | 3.0 |
| 10°-20° | 280.4 | 8.7 |
| 20°-30° | 428.4 | 13.2 |
| 30°-40° | 523.7 | 16.2 |
| 40°-50° | 560.6 | 17.3 |
| 50°-60° | 537.7 | 16.6 |
| 60°-70° | 454.0 | 14.0 |
| 70°-80° | 290.2 | 9.0 |
| 80°-90° | 68.6 | 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° | 806.3 | 24.9 |
| 0°-40° | 1330.0 | 41.0 |
| 0°-60° | 2428.2 | 74.9 |
| 0°-90° | 3241.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 3241.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1027 | 1027 | 1027 | 1027 | 1027 | |
| 5° | 1029 | 1023 | 1026 | 1024 | 1023 | 98 |
| 15° | 991 | 988 | 994 | 997 | 997 | 280 |
| 25° | 920 | 919 | 933 | 936 | 938 | 424 |
| 35° | 817 | 823 | 839 | 850 | 858 | 511 |
| 45° | 686 | 697 | 721 | 755 | 777 | 529 |
| 55° | 530 | 547 | 600 | 654 | 680 | 473 |
| 65° | 348 | 381 | 466 | 531 | 562 | 343 |
| 75° | 158 | 225 | 319 | 326 | 314 | 170 |
| 85° | 34 | 56 | 57 | 56 | 53 | 40 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1027.4 | 1027.4 | 1027.4 | 1027.4 | 1027.4 |
| 2.5° | 1032.2 | 1025.8 | 1027.4 | 1027.4 | 1024.2 |
| 5° | 1029.0 | 1022.6 | 1025.8 | 1024.2 | 1022.6 |
| 7.5° | 1022.6 | 1017.9 | 1021.0 | 1021.0 | 1019.4 |
| 10° | 1014.7 | 1009.9 | 1013.1 | 1014.7 | 1014.7 |
| 12.5° | 1003.5 | 1000.3 | 1005.1 | 1005.1 | 1006.7 |
| 15° | 990.7 | 987.5 | 993.9 | 997.1 | 997.1 |
| 17.5° | 976.4 | 974.8 | 982.8 | 984.3 | 985.9 |
| 20° | 960.4 | 958.8 | 968.4 | 968.4 | 971.6 |
| 22.5° | 941.3 | 939.7 | 952.4 | 952.4 | 955.6 |
| 25° | 920.5 | 918.9 | 933.3 | 936.5 | 938.1 |
| 27.5° | 898.2 | 896.6 | 911.0 | 915.7 | 918.9 |
| 30° | 872.7 | 872.7 | 888.6 | 895.0 | 899.8 |
| 32.5° | 844.0 | 848.7 | 863.1 | 872.7 | 879.1 |
| 35° | 816.8 | 823.2 | 839.2 | 850.3 | 858.3 |
| 37.5° | 786.5 | 792.9 | 810.5 | 824.8 | 834.4 |
| 40° | 754.6 | 762.6 | 783.3 | 799.3 | 813.6 |
| 42.5° | 722.7 | 730.7 | 753.0 | 776.9 | 796.1 |
| 45° | 686.0 | 697.2 | 721.1 | 754.6 | 776.9 |
| 47.5° | 649.3 | 660.5 | 690.8 | 732.3 | 754.6 |
| 50° | 611.0 | 623.8 | 660.5 | 708.3 | 732.3 |
| 52.5° | 571.1 | 585.5 | 631.8 | 682.8 | 706.8 |
| 55° | 529.7 | 547.2 | 599.9 | 654.1 | 679.6 |
| 57.5° | 486.6 | 505.7 | 568.0 | 625.4 | 652.5 |
| 60° | 441.9 | 465.9 | 534.5 | 595.1 | 623.8 |
| 62.5° | 395.7 | 424.4 | 500.9 | 563.2 | 593.5 |
| 65° | 347.8 | 381.3 | 465.9 | 531.3 | 561.6 |
| 67.5° | 298.3 | 343.0 | 430.8 | 499.4 | 529.7 |
| 70° | 248.9 | 301.5 | 394.1 | 464.3 | 494.6 |
| 72.5° | 202.6 | 263.2 | 357.4 | 422.8 | 429.2 |
| 75° | 157.9 | 224.9 | 319.1 | 325.5 | 314.3 |
| 77.5° | 118.1 | 186.7 | 263.2 | 234.5 | 232.9 |
| 80° | 84.6 | 150.0 | 169.1 | 173.9 | 175.5 |
| 82.5° | 55.8 | 113.3 | 110.1 | 113.3 | 111.7 |
| 85° | 33.5 | 55.8 | 57.4 | 55.8 | 52.6 |
| 87.5° | 16.0 | 20.7 | 16.0 | 14.4 | 12.8 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)