

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: P263745

Luminaire Tested: **24CZ-LD5-35SE-RDP-UNV-L82765-W2A1-U-4500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P263745
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-LD5-35SE-RDP-UNV-L82765-W2A1-U-4500K
Description: CRUZE 2x4 TUNABLE WHITE LED TROFFER
WITH RDP LENS
Light Source: (168) 80 CRI LEDS TUNED AT 4500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2511.0 lumens
Efficiency: N/A
Efficacy: 94.7 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

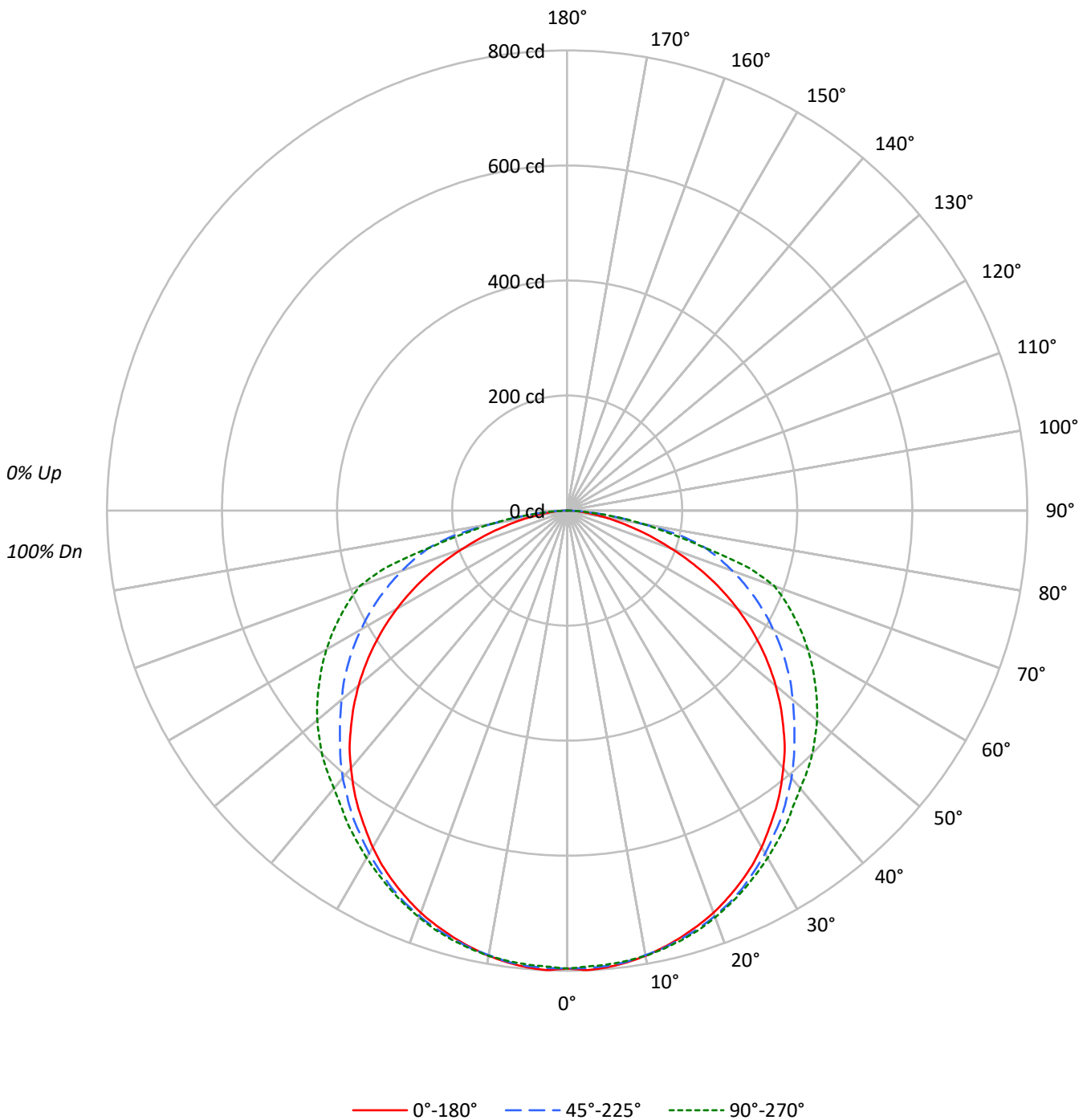
Input Watts (W): 26.505
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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 | 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° | 1071 | 1071 | 1071 |
| 5° | 1077 | 1073 | 1070 |
| 10° | 1074 | 1072 | 1074 |
| 15° | 1069 | 1073 | 1076 |
| 20° | 1065 | 1074 | 1078 |
| 25° | 1059 | 1074 | 1079 |
| 30° | 1050 | 1070 | 1083 |
| 35° | 1040 | 1068 | 1092 |
| 40° | 1027 | 1066 | 1107 |
| 45° | 1011 | 1063 | 1145 |
| 50° | 991 | 1071 | 1187 |
| 55° | 963 | 1090 | 1235 |
| 60° | 921 | 1114 | 1301 |
| 65° | 858 | 1149 | 1385 |
| 70° | 758 | 1201 | 1507 |
| 75° | 636 | 1285 | 1266 |
| 80° | 508 | 1015 | 1054 |
| 85° | 401 | 687 | 630 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 75.5 | 3.0 |
| 10°-20° | 217.3 | 8.7 |
| 20°-30° | 331.9 | 13.2 |
| 30°-40° | 405.8 | 16.2 |
| 40°-50° | 434.3 | 17.3 |
| 50°-60° | 416.6 | 16.6 |
| 60°-70° | 351.7 | 14.0 |
| 70°-80° | 224.8 | 9.0 |
| 80°-90° | 53.2 | 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° | 624.7 | 24.9 |
| 0°-40° | 1030.4 | 41.0 |
| 0°-60° | 1881.3 | 74.9 |
| 0°-90° | 2511.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 2511.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 796 | 796 | 796 | 796 | 796 | |
| 5° | 797 | 792 | 795 | 794 | 792 | 76 |
| 15° | 768 | 765 | 770 | 772 | 772 | 217 |
| 25° | 713 | 712 | 723 | 726 | 727 | 329 |
| 35° | 633 | 638 | 650 | 659 | 665 | 396 |
| 45° | 532 | 540 | 559 | 585 | 602 | 410 |
| 55° | 410 | 424 | 465 | 507 | 527 | 366 |
| 65° | 270 | 295 | 361 | 412 | 435 | 266 |
| 75° | 122 | 174 | 247 | 252 | 244 | 132 |
| 85° | 26 | 43 | 44 | 43 | 41 | 31 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 796.0 | 796.0 | 796.0 | 796.0 | 796.0 |
| 2.5° | 799.7 | 794.8 | 796.0 | 796.0 | 793.5 |
| 5° | 797.2 | 792.3 | 794.8 | 793.5 | 792.3 |
| 7.5° | 792.3 | 788.6 | 791.1 | 791.1 | 789.8 |
| 10° | 786.1 | 782.4 | 784.9 | 786.1 | 786.1 |
| 12.5° | 777.5 | 775.0 | 778.7 | 778.7 | 779.9 |
| 15° | 767.6 | 765.1 | 770.1 | 772.5 | 772.5 |
| 17.5° | 756.5 | 755.2 | 761.4 | 762.6 | 763.9 |
| 20° | 744.1 | 742.9 | 750.3 | 750.3 | 752.7 |
| 22.5° | 729.3 | 728.0 | 737.9 | 737.9 | 740.4 |
| 25° | 713.2 | 712.0 | 723.1 | 725.6 | 726.8 |
| 27.5° | 695.9 | 694.7 | 705.8 | 709.5 | 712.0 |
| 30° | 676.1 | 676.1 | 688.5 | 693.4 | 697.1 |
| 32.5° | 653.9 | 657.6 | 668.7 | 676.1 | 681.1 |
| 35° | 632.9 | 637.8 | 650.2 | 658.8 | 665.0 |
| 37.5° | 609.4 | 614.3 | 627.9 | 639.0 | 646.4 |
| 40° | 584.6 | 590.8 | 606.9 | 619.3 | 630.4 |
| 42.5° | 559.9 | 566.1 | 583.4 | 602.0 | 616.8 |
| 45° | 531.5 | 540.1 | 558.7 | 584.6 | 602.0 |
| 47.5° | 503.1 | 511.7 | 535.2 | 567.3 | 584.6 |
| 50° | 473.4 | 483.3 | 511.7 | 548.8 | 567.3 |
| 52.5° | 442.5 | 453.6 | 489.5 | 529.0 | 547.6 |
| 55° | 410.4 | 424.0 | 464.7 | 506.8 | 526.6 |
| 57.5° | 377.0 | 391.8 | 440.0 | 484.5 | 505.5 |
| 60° | 342.4 | 360.9 | 414.1 | 461.0 | 483.3 |
| 62.5° | 306.5 | 328.8 | 388.1 | 436.3 | 459.8 |
| 65° | 269.5 | 295.4 | 360.9 | 411.6 | 435.1 |
| 67.5° | 231.1 | 265.7 | 333.7 | 386.9 | 410.4 |
| 70° | 192.8 | 233.6 | 305.3 | 359.7 | 383.2 |
| 72.5° | 157.0 | 203.9 | 276.9 | 327.5 | 332.5 |
| 75° | 122.4 | 174.3 | 247.2 | 252.2 | 243.5 |
| 77.5° | 91.5 | 144.6 | 203.9 | 181.7 | 180.5 |
| 80° | 65.5 | 116.2 | 131.0 | 134.7 | 136.0 |
| 82.5° | 43.3 | 87.8 | 85.3 | 87.8 | 86.5 |
| 85° | 26.0 | 43.3 | 44.5 | 43.3 | 40.8 |
| 87.5° | 12.4 | 16.1 | 12.4 | 11.1 | 9.9 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)