

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: P263732

Luminaire Tested: **24CZ-LD5-30SE-RDP-UNV-L82765-W2A1-U-2700K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P263732
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-LD5-30SE-RDP-UNV-L82765-W2A1-U-2700K
Description: CRUZE 2x4 TUNABLE WHITE LED TROFFER
WITH RDP LENS
Light Source: (168) 80 CRI LEDS TUNED AT 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1934.0 lumens
Efficiency: N/A
Efficacy: 88.9 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

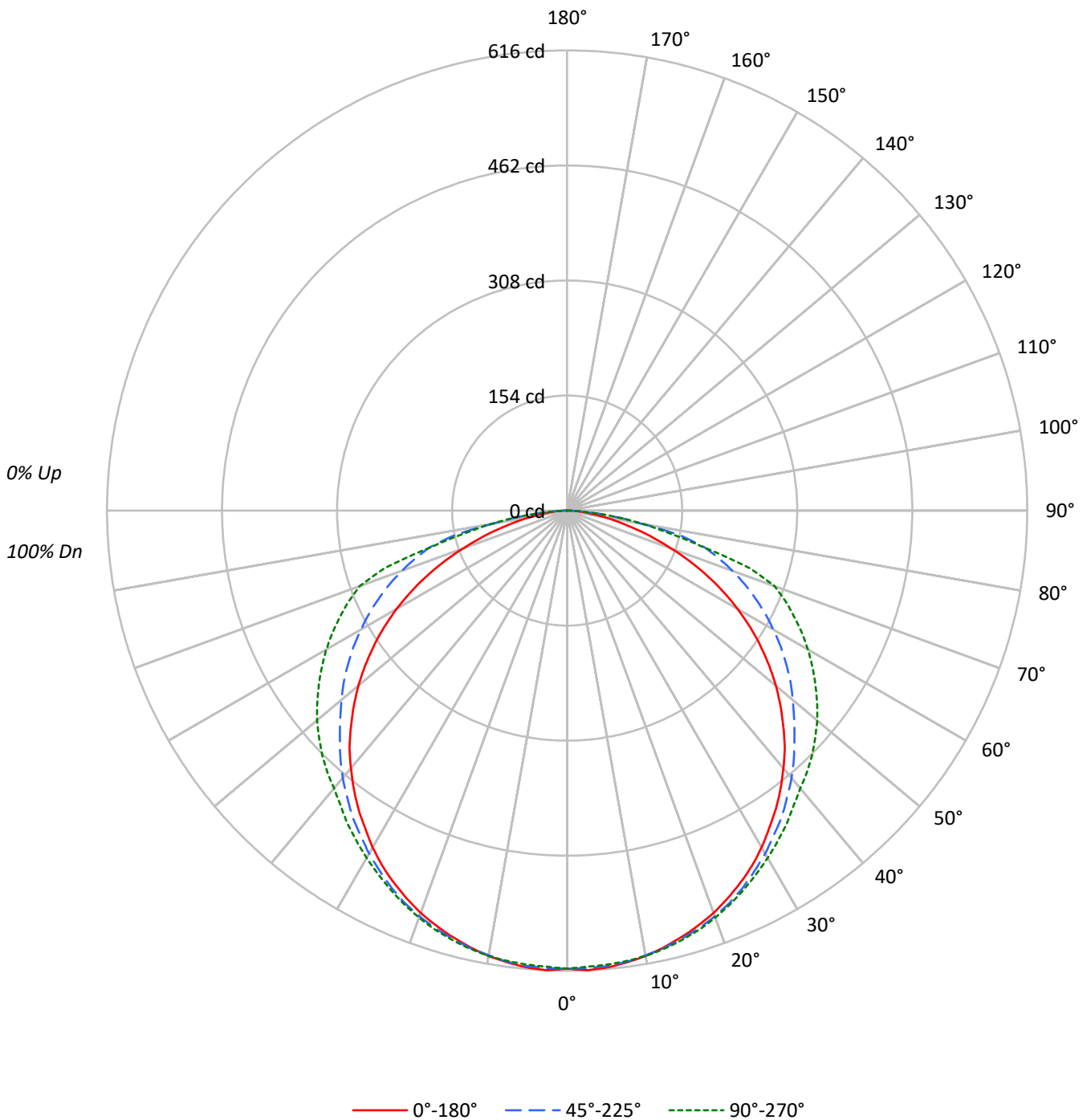
Input Watts (W): 21.762
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

| | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| RF | 20 | | | | 20 | | | | 20 | | | 20 | | | 20 | | | 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° | 825 | 825 | 825 |
| 5° | 829 | 827 | 824 |
| 10° | 827 | 826 | 827 |
| 15° | 824 | 826 | 829 |
| 20° | 821 | 827 | 830 |
| 25° | 815 | 827 | 831 |
| 30° | 809 | 824 | 834 |
| 35° | 801 | 823 | 841 |
| 40° | 791 | 821 | 853 |
| 45° | 779 | 819 | 882 |
| 50° | 763 | 825 | 915 |
| 55° | 742 | 840 | 951 |
| 60° | 710 | 858 | 1002 |
| 65° | 661 | 885 | 1067 |
| 70° | 584 | 925 | 1161 |
| 75° | 490 | 990 | 975 |
| 80° | 391 | 782 | 811 |
| 85° | 309 | 530 | 485 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 58.1 | 3.0 |
| 10°-20° | 167.4 | 8.7 |
| 20°-30° | 255.6 | 13.2 |
| 30°-40° | 312.5 | 16.2 |
| 40°-50° | 334.5 | 17.3 |
| 50°-60° | 320.9 | 16.6 |
| 60°-70° | 270.9 | 14.0 |
| 70°-80° | 173.1 | 9.0 |
| 80°-90° | 40.9 | 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° | 481.1 | 24.9 |
| 0°-40° | 793.6 | 41.0 |
| 0°-60° | 1449.0 | 74.9 |
| 0°-90° | 1934.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1934.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 613 | 613 | 613 | 613 | 613 | |
| 5° | 614 | 610 | 612 | 611 | 610 | 58 |
| 15° | 591 | 589 | 593 | 595 | 595 | 167 |
| 25° | 549 | 548 | 557 | 559 | 560 | 253 |
| 35° | 487 | 491 | 501 | 507 | 512 | 305 |
| 45° | 409 | 416 | 430 | 450 | 464 | 316 |
| 55° | 316 | 326 | 358 | 390 | 406 | 282 |
| 65° | 208 | 228 | 278 | 317 | 335 | 205 |
| 75° | 94 | 134 | 190 | 194 | 188 | 101 |
| 85° | 20 | 33 | 34 | 33 | 31 | 24 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 613.1 | 613.1 | 613.1 | 613.1 | 613.1 |
| 2.5° | 616.0 | 612.1 | 613.1 | 613.1 | 611.2 |
| 5° | 614.0 | 610.2 | 612.1 | 611.2 | 610.2 |
| 7.5° | 610.2 | 607.4 | 609.3 | 609.3 | 608.3 |
| 10° | 605.5 | 602.6 | 604.5 | 605.5 | 605.5 |
| 12.5° | 598.8 | 596.9 | 599.8 | 599.8 | 600.7 |
| 15° | 591.2 | 589.3 | 593.1 | 595.0 | 595.0 |
| 17.5° | 582.6 | 581.7 | 586.4 | 587.4 | 588.3 |
| 20° | 573.1 | 572.2 | 577.9 | 577.9 | 579.8 |
| 22.5° | 561.7 | 560.7 | 568.3 | 568.3 | 570.3 |
| 25° | 549.3 | 548.4 | 556.9 | 558.8 | 559.8 |
| 27.5° | 536.0 | 535.0 | 543.6 | 546.5 | 548.4 |
| 30° | 520.7 | 520.7 | 530.3 | 534.1 | 536.9 |
| 32.5° | 503.6 | 506.5 | 515.0 | 520.7 | 524.6 |
| 35° | 487.4 | 491.2 | 500.8 | 507.4 | 512.2 |
| 37.5° | 469.3 | 473.1 | 483.6 | 492.2 | 497.9 |
| 40° | 450.3 | 455.1 | 467.4 | 477.0 | 485.5 |
| 42.5° | 431.3 | 436.0 | 449.3 | 463.6 | 475.1 |
| 45° | 409.4 | 416.0 | 430.3 | 450.3 | 463.6 |
| 47.5° | 387.5 | 394.1 | 412.2 | 437.0 | 450.3 |
| 50° | 364.6 | 372.2 | 394.1 | 422.7 | 437.0 |
| 52.5° | 340.8 | 349.4 | 377.0 | 407.5 | 421.7 |
| 55° | 316.1 | 326.5 | 358.0 | 390.3 | 405.6 |
| 57.5° | 290.4 | 301.8 | 338.9 | 373.2 | 389.4 |
| 60° | 263.7 | 278.0 | 318.9 | 355.1 | 372.2 |
| 62.5° | 236.1 | 253.2 | 298.9 | 336.1 | 354.1 |
| 65° | 207.5 | 227.5 | 278.0 | 317.0 | 335.1 |
| 67.5° | 178.0 | 204.7 | 257.0 | 298.0 | 316.1 |
| 70° | 148.5 | 179.9 | 235.1 | 277.0 | 295.1 |
| 72.5° | 120.9 | 157.1 | 213.3 | 252.3 | 256.1 |
| 75° | 94.2 | 134.2 | 190.4 | 194.2 | 187.5 |
| 77.5° | 70.4 | 111.4 | 157.1 | 139.9 | 139.0 |
| 80° | 50.5 | 89.5 | 100.9 | 103.8 | 104.7 |
| 82.5° | 33.3 | 67.6 | 65.7 | 67.6 | 66.6 |
| 85° | 20.0 | 33.3 | 34.3 | 33.3 | 31.4 |
| 87.5° | 9.5 | 12.4 | 9.5 | 8.6 | 7.6 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)