

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: P263359

Luminaire Tested: **24CZ-LD5-30-SQP-UNV-L92765-W2A1-U-3500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P263359
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-LD5-30-SQP-UNV-L92765-W2A1-U-3500K
Description: CRUZE 2x4 TUNABLE WHITE LED TROFFER
WITH SQP LENS
Light Source: (336) 90 CRI LEDS TUNED AT 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1739.0 lumens
Efficiency: N/A
Efficacy: 88.6 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

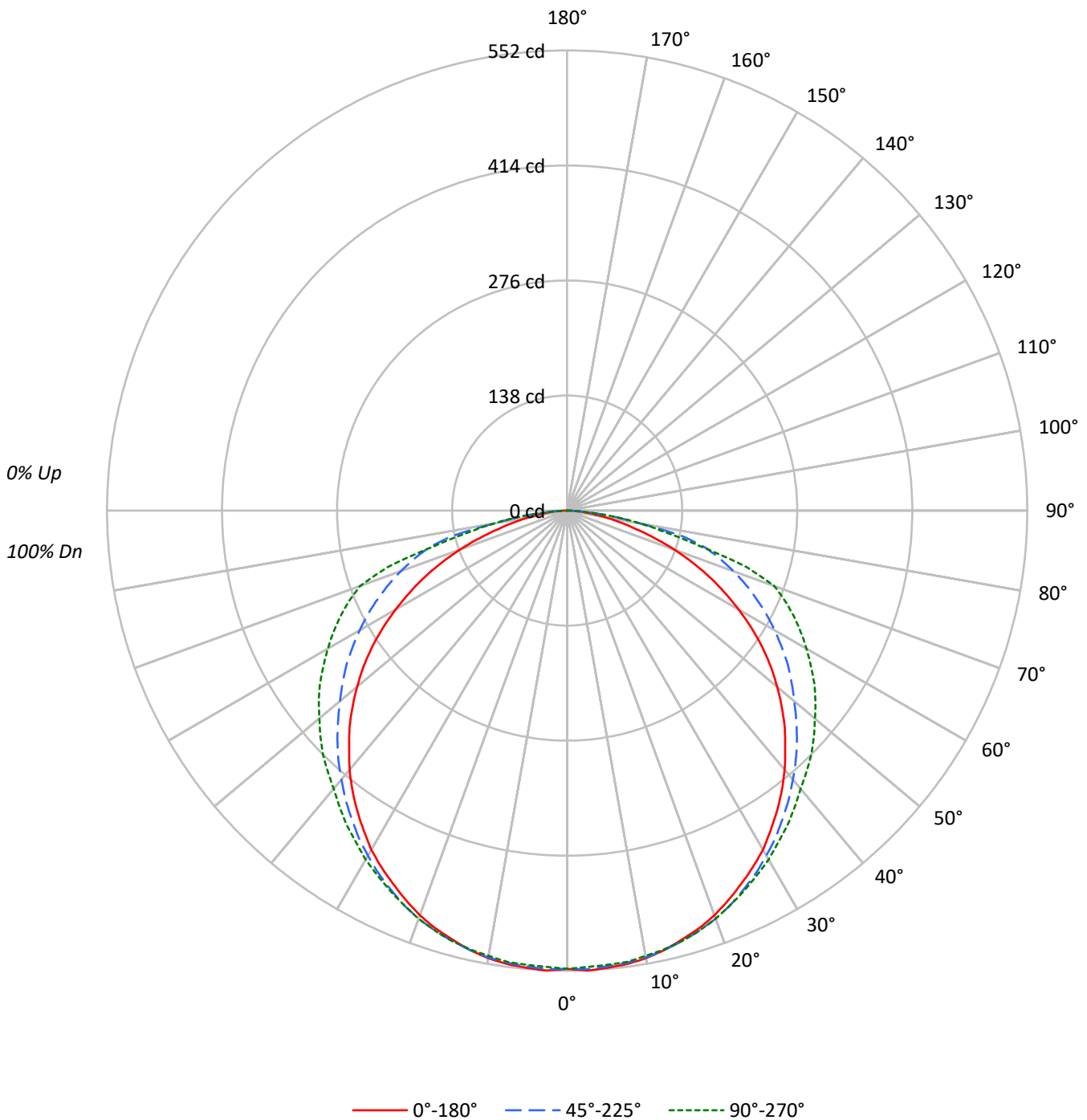
Input Watts (W): 19.623
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P263359

CATALOG NUMBER: 24CZ-LD5-30-SQP-UNV-L92765-W2A1-U-3500K

Luminous Intensity Polar Plot





TEST NUMBER: P263359

CATALOG NUMBER: 24CZ-LD5-30-SQP-UNV-L92765-W2A1-U-3500K

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° | 740 | 740 | 740 |
| 5° | 744 | 741 | 739 |
| 10° | 745 | 744 | 741 |
| 15° | 742 | 745 | 745 |
| 20° | 740 | 746 | 746 |
| 25° | 733 | 744 | 747 |
| 30° | 730 | 742 | 751 |
| 35° | 721 | 741 | 757 |
| 40° | 713 | 740 | 765 |
| 45° | 703 | 742 | 788 |
| 50° | 688 | 745 | 812 |
| 55° | 670 | 759 | 849 |
| 60° | 640 | 773 | 892 |
| 65° | 600 | 798 | 955 |
| 70° | 537 | 834 | 1039 |
| 75° | 443 | 892 | 859 |
| 80° | 362 | 689 | 696 |
| 85° | 292 | 457 | 429 |



TEST NUMBER: P263359

CATALOG NUMBER: 24CZ-LD5-30-SQP-UNV-L92765-W2A1-U-3500K

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 52.2 | 3.0 |
| 10°-20° | 150.7 | 8.7 |
| 20°-30° | 230.3 | 13.2 |
| 30°-40° | 281.6 | 16.2 |
| 40°-50° | 301.3 | 17.3 |
| 50°-60° | 288.5 | 16.6 |
| 60°-70° | 244.1 | 14.0 |
| 70°-80° | 154.7 | 8.9 |
| 80°-90° | 35.6 | 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° | 433.1 | 24.9 |
| 0°-40° | 714.7 | 41.1 |
| 0°-60° | 1304.6 | 75.0 |
| 0°-90° | 1739.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1739.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 550 | 550 | 550 | 550 | 550 | |
| 5° | 551 | 548 | 549 | 548 | 547 | 52 |
| 15° | 533 | 532 | 534 | 534 | 534 | 150 |
| 25° | 494 | 494 | 501 | 503 | 503 | 228 |
| 35° | 439 | 442 | 451 | 457 | 461 | 275 |
| 45° | 369 | 376 | 390 | 406 | 414 | 284 |
| 55° | 286 | 295 | 323 | 350 | 362 | 255 |
| 65° | 189 | 207 | 251 | 285 | 300 | 186 |
| 75° | 85 | 120 | 172 | 171 | 165 | 93 |
| 85° | 19 | 29 | 30 | 27 | 28 | 22 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P263359

CATALOG NUMBER: 24CZ-LD5-30-SQP-UNV-L92765-W2A1-U-3500K

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 549.7 | 549.7 | 549.7 | 549.7 | 549.7 |
| 2.5° | 552.4 | 549.7 | 550.6 | 549.7 | 547.9 |
| 5° | 550.6 | 547.9 | 548.8 | 547.9 | 547.0 |
| 7.5° | 548.8 | 546.1 | 547.0 | 546.1 | 546.1 |
| 10° | 545.2 | 542.5 | 544.3 | 543.4 | 542.5 |
| 12.5° | 539.8 | 538.1 | 539.8 | 539.0 | 539.0 |
| 15° | 532.7 | 531.8 | 534.5 | 534.5 | 534.5 |
| 17.5° | 525.5 | 524.6 | 528.2 | 528.2 | 528.2 |
| 20° | 516.5 | 515.6 | 521.0 | 521.0 | 521.0 |
| 22.5° | 505.7 | 504.8 | 512.0 | 512.0 | 512.0 |
| 25° | 494.0 | 494.0 | 501.2 | 503.0 | 503.0 |
| 27.5° | 482.4 | 482.4 | 490.4 | 493.1 | 493.1 |
| 30° | 469.8 | 469.8 | 477.9 | 481.5 | 483.3 |
| 32.5° | 454.5 | 456.3 | 465.3 | 469.8 | 471.6 |
| 35° | 439.2 | 441.9 | 450.9 | 457.2 | 460.8 |
| 37.5° | 423.1 | 425.8 | 436.6 | 443.7 | 448.2 |
| 40° | 406.0 | 409.6 | 421.3 | 430.3 | 435.7 |
| 42.5° | 387.1 | 392.5 | 406.0 | 417.7 | 424.9 |
| 45° | 369.2 | 375.5 | 389.8 | 406.0 | 414.1 |
| 47.5° | 349.4 | 356.6 | 372.8 | 393.4 | 401.5 |
| 50° | 328.8 | 335.9 | 355.7 | 379.1 | 388.0 |
| 52.5° | 308.1 | 316.2 | 339.5 | 364.7 | 375.5 |
| 55° | 285.6 | 294.6 | 323.4 | 350.3 | 362.0 |
| 57.5° | 262.3 | 273.1 | 305.4 | 334.1 | 346.7 |
| 60° | 238.0 | 251.5 | 287.4 | 318.0 | 331.5 |
| 62.5° | 212.9 | 229.1 | 269.5 | 301.8 | 316.2 |
| 65° | 188.6 | 206.6 | 250.6 | 284.7 | 300.0 |
| 67.5° | 162.6 | 185.0 | 231.7 | 268.6 | 282.9 |
| 70° | 136.5 | 162.6 | 212.0 | 249.7 | 264.1 |
| 72.5° | 110.5 | 141.9 | 192.2 | 226.4 | 226.4 |
| 75° | 85.3 | 120.4 | 171.6 | 170.7 | 165.3 |
| 77.5° | 64.7 | 100.6 | 141.0 | 120.4 | 121.3 |
| 80° | 46.7 | 80.8 | 88.9 | 88.9 | 89.8 |
| 82.5° | 31.4 | 62.0 | 57.5 | 56.6 | 58.4 |
| 85° | 18.9 | 28.7 | 29.6 | 26.9 | 27.8 |
| 87.5° | 9.0 | 9.9 | 8.1 | 5.4 | 5.4 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)