

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: P263423

Luminaire Tested: **24CZ-LD5-65-SQP-UNV-L92765-W2A1-U-4000K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P263423
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-LD5-65-SQP-UNV-L92765-W2A1-U-4000K
Description: CRUZE 2x4 TUNABLE WHITE LED TROFFER WITH SQP LENS
Light Source: (336) 90 CRI LEDS TUNED AT 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3822.0 lumens
Efficiency: N/A
Efficacy: 77.2 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

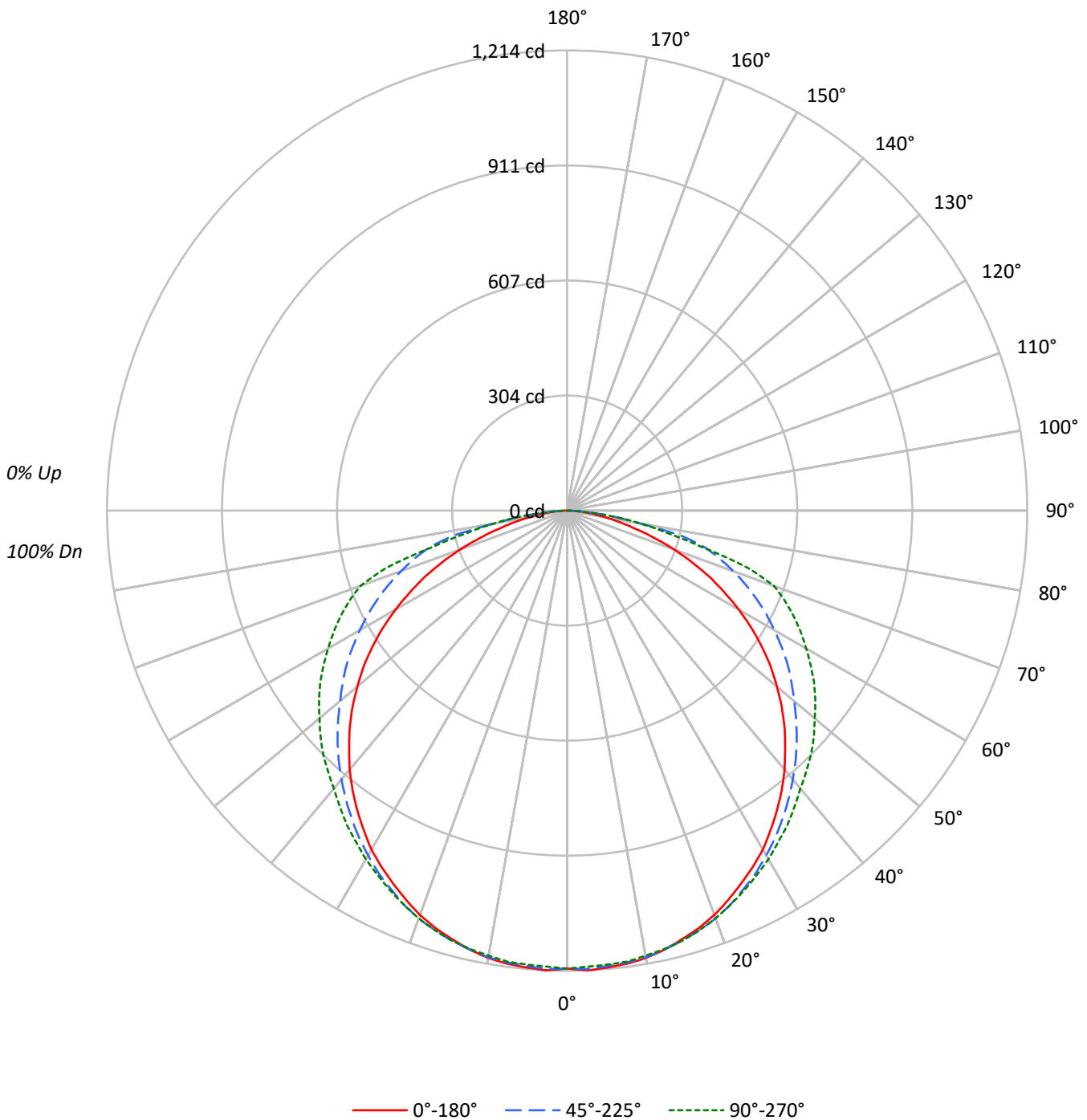
Input Watts (W): 49.476
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P263423

CATALOG NUMBER: 24CZ-LD5-65-SQP-UNV-L92765-W2A1-U-4000K

Luminous Intensity Polar Plot





TEST NUMBER: P263423

CATALOG NUMBER: 24CZ-LD5-65-SQP-UNV-L92765-W2A1-U-4000K

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

| | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| RF | 20 | | | | 20 | | | | 20 | | | | 20 | | | | 20 |
| RC | 80 | | | | 70 | | | | 50 | | | | 30 | | | | 10 |
| RW | 70 | 50 | 30 | 10 | 70 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 |
| RCR | | | | | | | | | | | | | | | | | |
| 0 | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 |
| 1 | 108 | 103 | 98 | 94 | 105 | 101 | 97 | 93 | 96 | 93 | 90 | 92 | 90 | 87 | 89 | 87 | 84 |
| 2 | 98 | 89 | 82 | 76 | 95 | 87 | 80 | 75 | 83 | 78 | 73 | 80 | 75 | 71 | 77 | 73 | 70 |
| 3 | 89 | 78 | 69 | 62 | 86 | 76 | 68 | 62 | 73 | 66 | 60 | 70 | 64 | 59 | 67 | 63 | 58 |
| 4 | 81 | 68 | 59 | 52 | 79 | 67 | 58 | 52 | 64 | 57 | 51 | 62 | 56 | 50 | 60 | 54 | 50 |
| 5 | 74 | 61 | 51 | 45 | 72 | 60 | 51 | 44 | 57 | 50 | 44 | 55 | 49 | 43 | 54 | 48 | 43 |
| 6 | 68 | 55 | 45 | 39 | 66 | 54 | 45 | 38 | 52 | 44 | 38 | 50 | 43 | 38 | 48 | 42 | 37 |
| 7 | 63 | 49 | 40 | 34 | 62 | 49 | 40 | 34 | 47 | 39 | 34 | 45 | 39 | 33 | 44 | 38 | 33 |
| 8 | 59 | 45 | 36 | 30 | 57 | 44 | 36 | 30 | 43 | 35 | 30 | 42 | 35 | 30 | 40 | 34 | 29 |
| 9 | 55 | 41 | 33 | 27 | 54 | 41 | 33 | 27 | 39 | 32 | 27 | 38 | 32 | 27 | 37 | 31 | 27 |
| 10 | 51 | 38 | 30 | 24 | 50 | 37 | 30 | 24 | 36 | 29 | 24 | 35 | 29 | 24 | 35 | 28 | 24 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 1626 | 1626 | 1626 |
| 5° | 1635 | 1629 | 1624 |
| 10° | 1637 | 1635 | 1629 |
| 15° | 1631 | 1636 | 1636 |
| 20° | 1625 | 1639 | 1639 |
| 25° | 1612 | 1635 | 1641 |
| 30° | 1604 | 1632 | 1650 |
| 35° | 1586 | 1628 | 1664 |
| 40° | 1567 | 1626 | 1682 |
| 45° | 1544 | 1630 | 1732 |
| 50° | 1513 | 1636 | 1785 |
| 55° | 1473 | 1667 | 1866 |
| 60° | 1408 | 1700 | 1960 |
| 65° | 1320 | 1754 | 2099 |
| 70° | 1181 | 1833 | 2283 |
| 75° | 975 | 1960 | 1889 |
| 80° | 796 | 1514 | 1530 |
| 85° | 641 | 1005 | 945 |



TEST NUMBER: P263423

CATALOG NUMBER: 24CZ-LD5-65-SQP-UNV-L92765-W2A1-U-4000K

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 114.7 | 3.0 |
| 10°-20° | 331.1 | 8.7 |
| 20°-30° | 506.1 | 13.2 |
| 30°-40° | 618.9 | 16.2 |
| 40°-50° | 662.3 | 17.3 |
| 50°-60° | 634.2 | 16.6 |
| 60°-70° | 536.5 | 14.0 |
| 70°-80° | 340.0 | 8.9 |
| 80°-90° | 78.2 | 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° | 951.9 | 24.9 |
| 0°-40° | 1570.8 | 41.1 |
| 0°-60° | 2867.3 | 75.0 |
| 0°-90° | 3822.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 3822.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1208 | 1208 | 1208 | 1208 | 1208 | |
| 5° | 1210 | 1204 | 1206 | 1204 | 1202 | 115 |
| 15° | 1171 | 1169 | 1175 | 1175 | 1175 | 331 |
| 25° | 1086 | 1086 | 1102 | 1106 | 1106 | 501 |
| 35° | 965 | 971 | 991 | 1005 | 1013 | 604 |
| 45° | 811 | 825 | 857 | 892 | 910 | 625 |
| 55° | 628 | 648 | 711 | 770 | 796 | 560 |
| 65° | 415 | 454 | 551 | 626 | 659 | 408 |
| 75° | 188 | 264 | 377 | 375 | 363 | 204 |
| 85° | 42 | 63 | 65 | 59 | 61 | 49 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P263423

CATALOG NUMBER: 24CZ-LD5-65-SQP-UNV-L92765-W2A1-U-4000K

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1208.2 | 1208.2 | 1208.2 | 1208.2 | 1208.2 |
| 2.5° | 1214.1 | 1208.2 | 1210.2 | 1208.2 | 1204.3 |
| 5° | 1210.2 | 1204.3 | 1206.2 | 1204.3 | 1202.3 |
| 7.5° | 1206.2 | 1200.3 | 1202.3 | 1200.3 | 1200.3 |
| 10° | 1198.3 | 1192.4 | 1196.4 | 1194.4 | 1192.4 |
| 12.5° | 1186.5 | 1182.5 | 1186.5 | 1184.5 | 1184.5 |
| 15° | 1170.7 | 1168.7 | 1174.6 | 1174.6 | 1174.6 |
| 17.5° | 1154.9 | 1152.9 | 1160.8 | 1160.8 | 1160.8 |
| 20° | 1135.2 | 1133.2 | 1145.0 | 1145.0 | 1145.0 |
| 22.5° | 1111.5 | 1109.5 | 1125.3 | 1125.3 | 1125.3 |
| 25° | 1085.8 | 1085.8 | 1101.6 | 1105.5 | 1105.5 |
| 27.5° | 1060.1 | 1060.1 | 1077.9 | 1083.8 | 1083.8 |
| 30° | 1032.5 | 1032.5 | 1050.3 | 1058.2 | 1062.1 |
| 32.5° | 998.9 | 1002.9 | 1022.6 | 1032.5 | 1036.5 |
| 35° | 965.4 | 971.3 | 991.0 | 1004.9 | 1012.8 |
| 37.5° | 929.8 | 935.8 | 959.5 | 975.3 | 985.1 |
| 40° | 892.3 | 900.2 | 925.9 | 945.6 | 957.5 |
| 42.5° | 850.9 | 862.7 | 892.3 | 918.0 | 933.8 |
| 45° | 811.4 | 825.2 | 856.8 | 892.3 | 910.1 |
| 47.5° | 768.0 | 783.8 | 819.3 | 864.7 | 882.5 |
| 50° | 722.6 | 738.3 | 781.8 | 833.1 | 852.9 |
| 52.5° | 677.1 | 694.9 | 746.2 | 801.5 | 825.2 |
| 55° | 627.8 | 647.5 | 710.7 | 769.9 | 795.6 |
| 57.5° | 576.5 | 600.2 | 671.2 | 734.4 | 762.0 |
| 60° | 523.2 | 552.8 | 631.7 | 698.9 | 728.5 |
| 62.5° | 467.9 | 503.4 | 592.3 | 663.3 | 694.9 |
| 65° | 414.6 | 454.1 | 550.8 | 625.8 | 659.4 |
| 67.5° | 357.3 | 406.7 | 509.3 | 590.3 | 621.9 |
| 70° | 300.1 | 357.3 | 465.9 | 548.8 | 580.4 |
| 72.5° | 242.8 | 311.9 | 422.5 | 497.5 | 497.5 |
| 75° | 187.5 | 264.5 | 377.1 | 375.1 | 363.3 |
| 77.5° | 142.1 | 221.1 | 309.9 | 264.5 | 266.5 |
| 80° | 102.7 | 177.7 | 195.4 | 195.4 | 197.4 |
| 82.5° | 69.1 | 136.2 | 126.3 | 124.4 | 128.3 |
| 85° | 41.5 | 63.2 | 65.1 | 59.2 | 61.2 |
| 87.5° | 19.7 | 21.7 | 17.8 | 11.8 | 11.8 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)