

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: P263844

Luminaire Tested: **24CZ-LD5-65-RDP-UNV-L92765-W2A1-U-4500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P263844
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-LD5-65-RDP-UNV-L92765-W2A1-U-4500K
Description: CRUZE 2x4 TUNABLE WHITE LED TROFFER
WITH RDP LENS
Light Source: (336) 90 CRI LEDS TUNED AT 4500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4116.0 lumens
Efficiency: N/A
Efficacy: 82.6 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

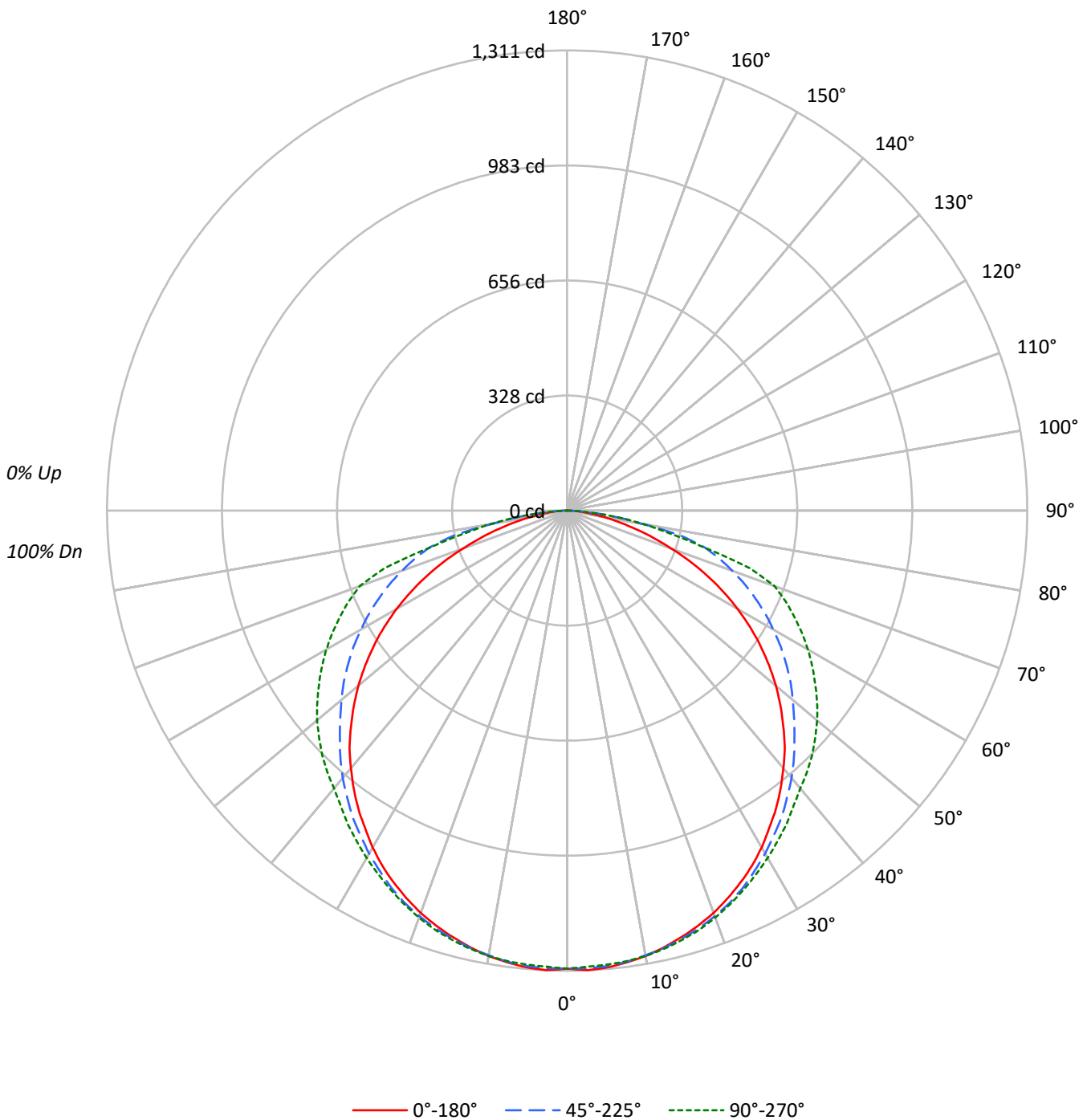
Input Watts (W): 49.848
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P263844

CATALOG NUMBER: 24CZ-LD5-65-RDP-UNV-L92765-W2A1-U-4500K

Luminous Intensity Polar Plot





TEST NUMBER: P263844

CATALOG NUMBER: 24CZ-LD5-65-RDP-UNV-L92765-W2A1-U-4500K

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 | 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 | | | | | 100 | | | |
| 1 | 108 | 103 | 98 | 94 | 105 | 101 | 97 | 93 | 96 | 93 | 90 | 92 | 90 | 87 | 89 | 87 | 84 | 82 | | | | | 82 | | | |
| 2 | 98 | 89 | 82 | 76 | 95 | 87 | 80 | 75 | 83 | 78 | 73 | 80 | 75 | 71 | 77 | 73 | 70 | 67 | | | | | 67 | | | |
| 3 | 89 | 78 | 69 | 62 | 86 | 76 | 68 | 62 | 73 | 66 | 60 | 70 | 64 | 59 | 67 | 62 | 58 | 56 | | | | | 56 | | | |
| 4 | 81 | 68 | 59 | 52 | 78 | 67 | 58 | 52 | 64 | 57 | 51 | 62 | 56 | 50 | 60 | 54 | 50 | 47 | | | | | 47 | | | |
| 5 | 74 | 61 | 51 | 45 | 72 | 60 | 51 | 44 | 57 | 50 | 44 | 55 | 49 | 43 | 54 | 48 | 43 | 41 | | | | | 41 | | | |
| 6 | 68 | 55 | 45 | 39 | 66 | 54 | 45 | 38 | 52 | 44 | 38 | 50 | 43 | 38 | 48 | 42 | 37 | 35 | | | | | 35 | | | |
| 7 | 63 | 49 | 40 | 34 | 61 | 48 | 40 | 34 | 47 | 39 | 34 | 45 | 38 | 33 | 44 | 38 | 33 | 31 | | | | | 31 | | | |
| 8 | 59 | 45 | 36 | 30 | 57 | 44 | 36 | 30 | 43 | 35 | 30 | 42 | 35 | 30 | 40 | 34 | 29 | 27 | | | | | 27 | | | |
| 9 | 55 | 41 | 33 | 27 | 53 | 41 | 32 | 27 | 39 | 32 | 27 | 38 | 32 | 27 | 37 | 31 | 27 | 25 | | | | | 25 | | | |
| 10 | 51 | 38 | 30 | 24 | 50 | 37 | 30 | 24 | 36 | 29 | 24 | 35 | 29 | 24 | 35 | 28 | 24 | 22 | | | | | 22 | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 1756 | 1756 | 1756 |
| 5° | 1765 | 1760 | 1754 |
| 10° | 1761 | 1758 | 1761 |
| 15° | 1753 | 1758 | 1764 |
| 20° | 1746 | 1761 | 1767 |
| 25° | 1736 | 1760 | 1769 |
| 30° | 1722 | 1753 | 1775 |
| 35° | 1704 | 1750 | 1790 |
| 40° | 1683 | 1747 | 1815 |
| 45° | 1658 | 1743 | 1878 |
| 50° | 1624 | 1756 | 1947 |
| 55° | 1578 | 1787 | 2025 |
| 60° | 1510 | 1826 | 2132 |
| 65° | 1406 | 1883 | 2271 |
| 70° | 1244 | 1969 | 2471 |
| 75° | 1043 | 2106 | 2075 |
| 80° | 832 | 1664 | 1727 |
| 85° | 656 | 1125 | 1033 |



TEST NUMBER: P263844

CATALOG NUMBER: 24CZ-LD5-65-RDP-UNV-L92765-W2A1-U-4500K

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 123.8 | 3.0 |
| 10°-20° | 356.2 | 8.7 |
| 20°-30° | 544.0 | 13.2 |
| 30°-40° | 665.1 | 16.2 |
| 40°-50° | 711.9 | 17.3 |
| 50°-60° | 682.9 | 16.6 |
| 60°-70° | 576.6 | 14.0 |
| 70°-80° | 368.5 | 9.0 |
| 80°-90° | 87.1 | 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° | 1023.9 | 24.9 |
| 0°-40° | 1689.0 | 41.0 |
| 0°-60° | 3083.8 | 74.9 |
| 0°-90° | 4116.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 4116.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1305 | 1305 | 1305 | 1305 | 1305 | |
| 5° | 1307 | 1299 | 1303 | 1301 | 1299 | 124 |
| 15° | 1258 | 1254 | 1262 | 1266 | 1266 | 355 |
| 25° | 1169 | 1167 | 1185 | 1189 | 1191 | 539 |
| 35° | 1037 | 1046 | 1066 | 1080 | 1090 | 649 |
| 45° | 871 | 885 | 916 | 958 | 987 | 672 |
| 55° | 673 | 695 | 762 | 831 | 863 | 600 |
| 65° | 442 | 484 | 592 | 675 | 713 | 436 |
| 75° | 201 | 286 | 405 | 413 | 399 | 216 |
| 85° | 42 | 71 | 73 | 71 | 67 | 51 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P263844

CATALOG NUMBER: 24CZ-LD5-65-RDP-UNV-L92765-W2A1-U-4500K

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1304.8 | 1304.8 | 1304.8 | 1304.8 | 1304.8 |
| 2.5° | 1310.9 | 1302.8 | 1304.8 | 1304.8 | 1300.8 |
| 5° | 1306.8 | 1298.7 | 1302.8 | 1300.8 | 1298.7 |
| 7.5° | 1298.7 | 1292.6 | 1296.7 | 1296.7 | 1294.7 |
| 10° | 1288.6 | 1282.5 | 1286.6 | 1288.6 | 1288.6 |
| 12.5° | 1274.4 | 1270.4 | 1276.4 | 1276.4 | 1278.5 |
| 15° | 1258.2 | 1254.2 | 1262.3 | 1266.3 | 1266.3 |
| 17.5° | 1240.0 | 1237.9 | 1248.1 | 1250.1 | 1252.1 |
| 20° | 1219.7 | 1217.7 | 1229.8 | 1229.8 | 1233.9 |
| 22.5° | 1195.4 | 1193.4 | 1209.6 | 1209.6 | 1213.6 |
| 25° | 1169.1 | 1167.0 | 1185.3 | 1189.3 | 1191.3 |
| 27.5° | 1140.7 | 1138.7 | 1156.9 | 1163.0 | 1167.0 |
| 30° | 1108.3 | 1108.3 | 1128.5 | 1136.6 | 1142.7 |
| 32.5° | 1071.8 | 1077.9 | 1096.1 | 1108.3 | 1116.4 |
| 35° | 1037.4 | 1045.5 | 1065.7 | 1079.9 | 1090.0 |
| 37.5° | 998.9 | 1007.0 | 1029.3 | 1047.5 | 1059.6 |
| 40° | 958.3 | 968.5 | 994.8 | 1015.1 | 1033.3 |
| 42.5° | 917.8 | 928.0 | 956.3 | 986.7 | 1011.0 |
| 45° | 871.2 | 885.4 | 915.8 | 958.3 | 986.7 |
| 47.5° | 824.6 | 838.8 | 877.3 | 930.0 | 958.3 |
| 50° | 776.0 | 792.2 | 838.8 | 899.6 | 930.0 |
| 52.5° | 725.3 | 743.6 | 802.3 | 867.2 | 897.6 |
| 55° | 672.7 | 695.0 | 761.8 | 830.7 | 863.1 |
| 57.5° | 618.0 | 642.3 | 721.3 | 794.2 | 828.7 |
| 60° | 561.2 | 591.6 | 678.7 | 755.7 | 792.2 |
| 62.5° | 502.5 | 538.9 | 636.2 | 715.2 | 753.7 |
| 65° | 441.7 | 484.2 | 591.6 | 674.7 | 713.2 |
| 67.5° | 378.9 | 435.6 | 547.0 | 634.2 | 672.7 |
| 70° | 316.1 | 382.9 | 500.4 | 589.6 | 628.1 |
| 72.5° | 257.3 | 334.3 | 453.8 | 536.9 | 545.0 |
| 75° | 200.6 | 285.7 | 405.2 | 413.3 | 399.1 |
| 77.5° | 149.9 | 237.1 | 334.3 | 297.8 | 295.8 |
| 80° | 107.4 | 190.5 | 214.8 | 220.8 | 222.9 |
| 82.5° | 70.9 | 143.9 | 139.8 | 143.9 | 141.8 |
| 85° | 42.5 | 70.9 | 72.9 | 70.9 | 66.9 |
| 87.5° | 20.3 | 26.3 | 20.3 | 18.2 | 16.2 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)