

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: P261248

Luminaire Tested: **24CZ-LD5-50SE-S-UNV-L82765-W2A1-U-2700K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P261248
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25694)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ-LD5-50SE-S-UNV-L82765-W2A1-U-2700K
Description: CRUZE 2x4 TUNABLE WHITE LED TROFFER
WITH SMOOTH LENS
Light Source: (168) 80 CRI LEDS TUNED AT 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4682.0 lumens
Efficiency: N/A
Efficacy: 117.9 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

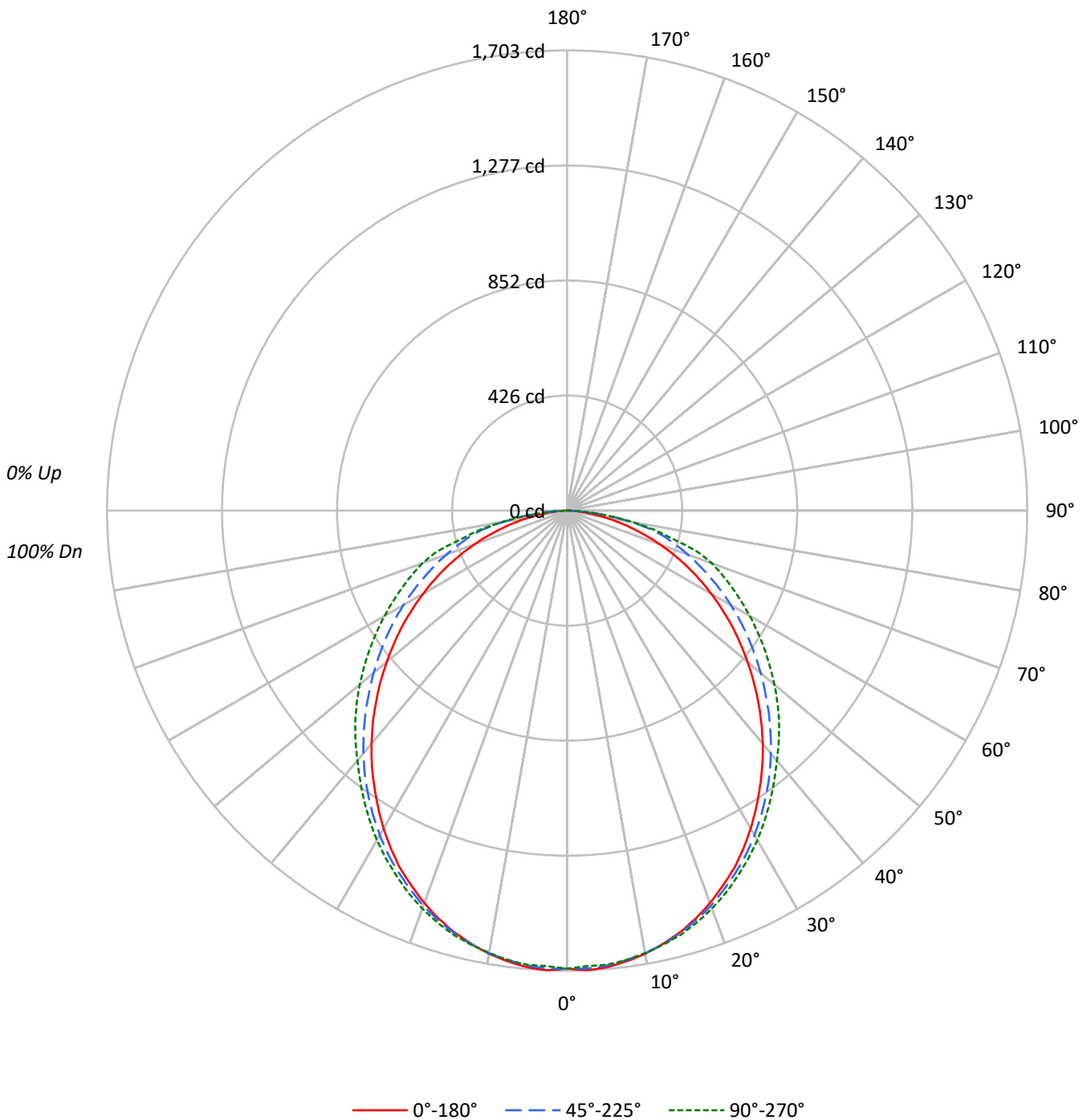
Input Watts (W): 39.711
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P261248

CATALOG NUMBER: 24CZ-LD5-50SE-S-UNV-L82765-W2A1-U-2700K

Luminous Intensity Polar Plot





TEST NUMBER: P261248

CATALOG NUMBER: 24CZ-LD5-50SE-S-UNV-L82765-W2A1-U-2700K

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 | 104 | 99 | 95 | 106 | 101 | 97 | 94 | 97 | 94 | 91 | 93 | 90 | 88 | 89 | 87 | 85 | 83 |
| 2 | 99 | 90 | 83 | 77 | 96 | 88 | 82 | 76 | 85 | 79 | 75 | 81 | 77 | 73 | 78 | 75 | 71 | 69 |
| 3 | 90 | 79 | 71 | 64 | 87 | 77 | 70 | 64 | 74 | 68 | 62 | 72 | 66 | 61 | 69 | 64 | 60 | 58 |
| 4 | 82 | 70 | 61 | 54 | 80 | 69 | 60 | 54 | 66 | 59 | 53 | 64 | 58 | 52 | 62 | 56 | 52 | 50 |
| 5 | 76 | 63 | 53 | 47 | 73 | 61 | 53 | 47 | 59 | 52 | 46 | 57 | 51 | 45 | 55 | 50 | 45 | 43 |
| 6 | 70 | 56 | 47 | 41 | 68 | 55 | 47 | 41 | 54 | 46 | 40 | 52 | 45 | 40 | 50 | 44 | 40 | 38 |
| 7 | 65 | 51 | 42 | 36 | 63 | 50 | 42 | 36 | 49 | 41 | 36 | 47 | 41 | 35 | 46 | 40 | 35 | 33 |
| 8 | 60 | 47 | 38 | 32 | 59 | 46 | 38 | 32 | 45 | 37 | 32 | 43 | 37 | 32 | 42 | 36 | 32 | 30 |
| 9 | 56 | 43 | 35 | 29 | 55 | 42 | 34 | 29 | 41 | 34 | 29 | 40 | 33 | 29 | 39 | 33 | 29 | 27 |
| 10 | 53 | 40 | 32 | 26 | 52 | 39 | 31 | 26 | 38 | 31 | 26 | 37 | 31 | 26 | 36 | 30 | 26 | 24 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 2281 | 2281 | 2281 |
| 5° | 2291 | 2283 | 2279 |
| 10° | 2275 | 2273 | 2271 |
| 15° | 2250 | 2255 | 2263 |
| 20° | 2213 | 2228 | 2244 |
| 25° | 2169 | 2193 | 2216 |
| 30° | 2111 | 2154 | 2188 |
| 35° | 2044 | 2109 | 2152 |
| 40° | 1978 | 2060 | 2121 |
| 45° | 1903 | 2007 | 2111 |
| 50° | 1826 | 1957 | 2097 |
| 55° | 1747 | 1915 | 2090 |
| 60° | 1656 | 1882 | 2100 |
| 65° | 1557 | 1860 | 2143 |
| 70° | 1434 | 1869 | 2243 |
| 75° | 1272 | 1935 | 2089 |
| 80° | 1062 | 1835 | 1883 |
| 85° | 794 | 1467 | 1346 |



TEST NUMBER: P261248

CATALOG NUMBER: 24CZ-LD5-50SE-S-UNV-L82765-W2A1-U-2700K

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 160.3 | 3.4 |
| 10°-20° | 455.8 | 9.7 |
| 20°-30° | 679.2 | 14.5 |
| 30°-40° | 799.5 | 17.1 |
| 40°-50° | 812.5 | 17.4 |
| 50°-60° | 730.5 | 15.6 |
| 60°-70° | 577.1 | 12.3 |
| 70°-80° | 366.1 | 7.8 |
| 80°-90° | 101.0 | 2.2 |
| 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° | 1295.2 | 27.7 |
| 0°-40° | 2094.7 | 44.7 |
| 0°-60° | 3637.7 | 77.7 |
| 0°-90° | 4682.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 4682.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1695 | 1695 | 1695 | 1695 | 1695 | |
| 5° | 1696 | 1682 | 1690 | 1687 | 1687 | 161 |
| 15° | 1616 | 1608 | 1619 | 1623 | 1625 | 455 |
| 25° | 1461 | 1460 | 1477 | 1486 | 1492 | 672 |
| 35° | 1245 | 1252 | 1284 | 1298 | 1310 | 779 |
| 45° | 1000 | 1014 | 1055 | 1086 | 1109 | 772 |
| 55° | 745 | 763 | 816 | 869 | 891 | 665 |
| 65° | 489 | 514 | 584 | 648 | 673 | 485 |
| 75° | 245 | 287 | 372 | 405 | 402 | 260 |
| 85° | 51 | 89 | 95 | 87 | 87 | 63 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P261248

CATALOG NUMBER: 24CZ-LD5-50SE-S-UNV-L82765-W2A1-U-2700K

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1695.0 | 1695.0 | 1695.0 | 1695.0 | 1695.0 |
| 2.5° | 1702.8 | 1690.3 | 1696.5 | 1693.4 | 1687.2 |
| 5° | 1696.5 | 1682.5 | 1690.3 | 1687.2 | 1687.2 |
| 7.5° | 1682.5 | 1671.6 | 1677.8 | 1676.3 | 1677.8 |
| 10° | 1665.4 | 1654.5 | 1663.8 | 1663.8 | 1662.3 |
| 12.5° | 1642.0 | 1632.7 | 1643.6 | 1643.6 | 1645.1 |
| 15° | 1615.5 | 1607.7 | 1618.6 | 1623.3 | 1624.9 |
| 17.5° | 1582.8 | 1575.0 | 1589.0 | 1593.7 | 1598.4 |
| 20° | 1545.4 | 1542.3 | 1556.3 | 1561.0 | 1567.2 |
| 22.5° | 1503.4 | 1503.4 | 1517.4 | 1523.6 | 1533.0 |
| 25° | 1461.3 | 1459.7 | 1476.9 | 1486.2 | 1492.4 |
| 27.5° | 1411.4 | 1413.0 | 1434.8 | 1444.2 | 1451.9 |
| 30° | 1358.5 | 1361.6 | 1386.5 | 1397.4 | 1408.3 |
| 32.5° | 1302.4 | 1308.6 | 1336.7 | 1349.1 | 1360.0 |
| 35° | 1244.7 | 1252.5 | 1283.7 | 1297.7 | 1310.2 |
| 37.5° | 1187.1 | 1198.0 | 1230.7 | 1244.7 | 1258.8 |
| 40° | 1126.3 | 1135.7 | 1173.1 | 1190.2 | 1207.4 |
| 42.5° | 1064.0 | 1076.5 | 1113.9 | 1138.8 | 1159.1 |
| 45° | 1000.2 | 1014.2 | 1054.7 | 1085.8 | 1109.2 |
| 47.5° | 936.3 | 955.0 | 993.9 | 1036.0 | 1056.2 |
| 50° | 872.4 | 891.1 | 934.7 | 981.5 | 1001.7 |
| 52.5° | 807.0 | 825.7 | 875.5 | 923.8 | 945.6 |
| 55° | 744.7 | 763.4 | 816.3 | 869.3 | 891.1 |
| 57.5° | 679.2 | 699.5 | 758.7 | 813.2 | 835.0 |
| 60° | 615.4 | 635.6 | 699.5 | 757.1 | 780.5 |
| 62.5° | 553.0 | 574.9 | 641.8 | 702.6 | 726.0 |
| 65° | 489.2 | 514.1 | 584.2 | 648.1 | 673.0 |
| 67.5° | 426.9 | 454.9 | 528.1 | 595.1 | 621.6 |
| 70° | 364.5 | 397.3 | 475.2 | 543.7 | 570.2 |
| 72.5° | 303.8 | 339.6 | 422.2 | 490.7 | 504.8 |
| 75° | 244.6 | 286.6 | 372.3 | 405.0 | 401.9 |
| 77.5° | 188.5 | 235.2 | 316.2 | 322.5 | 331.8 |
| 80° | 137.1 | 188.5 | 236.8 | 249.3 | 243.0 |
| 82.5° | 90.4 | 141.8 | 169.8 | 163.6 | 162.0 |
| 85° | 51.4 | 88.8 | 95.0 | 87.2 | 87.2 |
| 87.5° | 21.8 | 35.8 | 31.2 | 23.4 | 21.8 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)