

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: P263300

Luminaire Tested: **24CZ-LD5-70-SQP-UNV-L82765-W2A1-U-5500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P263300
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-LD5-70-SQP-UNV-L82765-W2A1-U-5500K
Description: CRUZE 2x4 TUNABLE WHITE LED TROFFER WITH SQP LENS
Light Source: (336) 80 CRI LEDS TUNED AT 5500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4854.0 lumens
Efficiency: N/A
Efficacy: 88.0 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

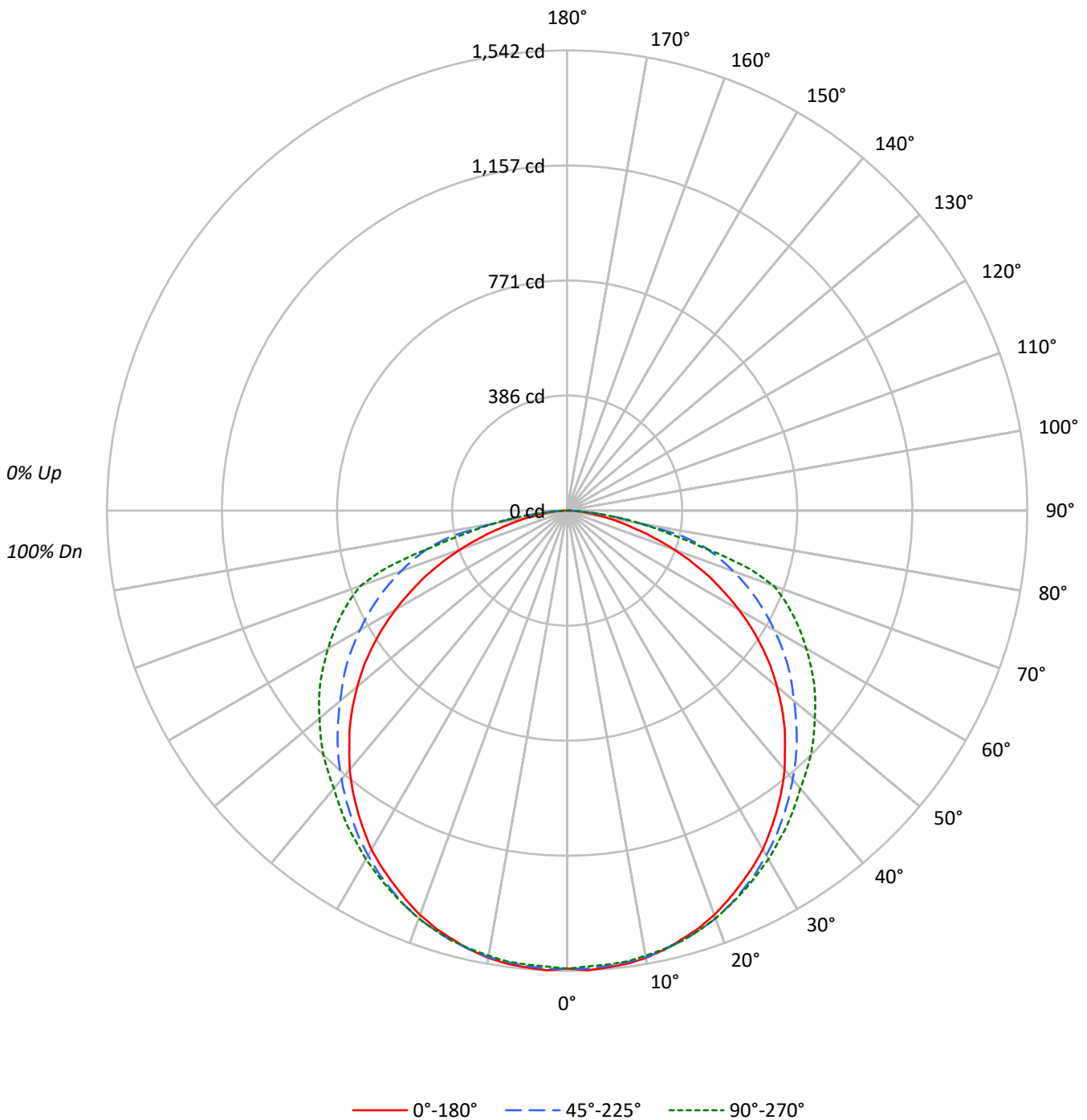
Input Watts (W): 55.149
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





TEST NUMBER: P263300

CATALOG NUMBER: 24CZ-LD5-70-SQP-UNV-L82765-W2A1-U-5500K

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 | 63 | 58 | 56 | | | | | 56 | | | |
| 4 | 81 | 68 | 59 | 52 | 79 | 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 | 62 | 49 | 40 | 34 | 47 | 39 | 34 | 45 | 39 | 33 | 44 | 38 | 33 | 31 | | | | | 31 | | | |
| 8 | 59 | 45 | 36 | 30 | 57 | 44 | 36 | 30 | 43 | 35 | 30 | 42 | 35 | 30 | 40 | 34 | 29 | 28 | | | | | 28 | | | |
| 9 | 55 | 41 | 33 | 27 | 54 | 41 | 33 | 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° | 2065 | 2065 | 2065 |
| 5° | 2076 | 2069 | 2062 |
| 10° | 2079 | 2076 | 2069 |
| 15° | 2071 | 2078 | 2078 |
| 20° | 2064 | 2082 | 2082 |
| 25° | 2047 | 2077 | 2085 |
| 30° | 2037 | 2072 | 2096 |
| 35° | 2014 | 2067 | 2113 |
| 40° | 1991 | 2065 | 2136 |
| 45° | 1961 | 2070 | 2199 |
| 50° | 1921 | 2078 | 2267 |
| 55° | 1870 | 2117 | 2370 |
| 60° | 1788 | 2159 | 2490 |
| 65° | 1676 | 2227 | 2666 |
| 70° | 1499 | 2328 | 2900 |
| 75° | 1238 | 2490 | 2398 |
| 80° | 1010 | 1923 | 1943 |
| 85° | 814 | 1277 | 1200 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 145.7 | 3.0 |
| 10°-20° | 420.5 | 8.7 |
| 20°-30° | 642.7 | 13.2 |
| 30°-40° | 786.1 | 16.2 |
| 40°-50° | 841.1 | 17.3 |
| 50°-60° | 805.4 | 16.6 |
| 60°-70° | 681.3 | 14.0 |
| 70°-80° | 431.9 | 8.9 |
| 80°-90° | 99.4 | 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° | 1209.0 | 24.9 |
| 0°-40° | 1995.0 | 41.1 |
| 0°-60° | 3641.5 | 75.0 |
| 0°-90° | 4854.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 4854.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1534 | 1534 | 1534 | 1534 | 1534 | |
| 5° | 1537 | 1529 | 1532 | 1529 | 1527 | 146 |
| 15° | 1487 | 1484 | 1492 | 1492 | 1492 | 420 |
| 25° | 1379 | 1379 | 1399 | 1404 | 1404 | 636 |
| 35° | 1226 | 1234 | 1259 | 1276 | 1286 | 767 |
| 45° | 1030 | 1048 | 1088 | 1133 | 1156 | 794 |
| 55° | 797 | 822 | 903 | 978 | 1010 | 711 |
| 65° | 526 | 577 | 700 | 795 | 837 | 519 |
| 75° | 238 | 336 | 479 | 476 | 461 | 259 |
| 85° | 53 | 80 | 83 | 75 | 78 | 63 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CATALOG NUMBER: 24CZ-LD5-70-SQP-UNV-L82765-W2A1-U-5500K

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1534.4 | 1534.4 | 1534.4 | 1534.4 | 1534.4 |
| 2.5° | 1542.0 | 1534.4 | 1536.9 | 1534.4 | 1529.4 |
| 5° | 1536.9 | 1529.4 | 1531.9 | 1529.4 | 1526.9 |
| 7.5° | 1531.9 | 1524.4 | 1526.9 | 1524.4 | 1524.4 |
| 10° | 1521.9 | 1514.4 | 1519.4 | 1516.9 | 1514.4 |
| 12.5° | 1506.9 | 1501.8 | 1506.9 | 1504.4 | 1504.4 |
| 15° | 1486.8 | 1484.3 | 1491.8 | 1491.8 | 1491.8 |
| 17.5° | 1466.7 | 1464.2 | 1474.3 | 1474.3 | 1474.3 |
| 20° | 1441.7 | 1439.2 | 1454.2 | 1454.2 | 1454.2 |
| 22.5° | 1411.6 | 1409.1 | 1429.1 | 1429.1 | 1429.1 |
| 25° | 1379.0 | 1379.0 | 1399.0 | 1404.1 | 1404.1 |
| 27.5° | 1346.4 | 1346.4 | 1369.0 | 1376.5 | 1376.5 |
| 30° | 1311.3 | 1311.3 | 1333.9 | 1343.9 | 1348.9 |
| 32.5° | 1268.7 | 1273.7 | 1298.8 | 1311.3 | 1316.3 |
| 35° | 1226.0 | 1233.6 | 1258.6 | 1276.2 | 1286.2 |
| 37.5° | 1180.9 | 1188.4 | 1218.5 | 1238.6 | 1251.1 |
| 40° | 1133.3 | 1143.3 | 1175.9 | 1201.0 | 1216.0 |
| 42.5° | 1080.6 | 1095.7 | 1133.3 | 1165.9 | 1185.9 |
| 45° | 1030.5 | 1048.0 | 1088.1 | 1133.3 | 1155.8 |
| 47.5° | 975.3 | 995.4 | 1040.5 | 1098.2 | 1120.7 |
| 50° | 917.7 | 937.7 | 992.9 | 1058.1 | 1083.1 |
| 52.5° | 860.0 | 882.6 | 947.7 | 1017.9 | 1048.0 |
| 55° | 797.3 | 822.4 | 902.6 | 977.8 | 1010.4 |
| 57.5° | 732.1 | 762.2 | 852.5 | 932.7 | 967.8 |
| 60° | 664.4 | 702.0 | 802.3 | 887.6 | 925.2 |
| 62.5° | 594.2 | 639.4 | 752.2 | 842.4 | 882.6 |
| 65° | 526.5 | 576.7 | 699.5 | 794.8 | 837.4 |
| 67.5° | 453.8 | 516.5 | 646.9 | 749.7 | 789.8 |
| 70° | 381.1 | 453.8 | 591.7 | 697.0 | 737.1 |
| 72.5° | 308.4 | 396.1 | 536.6 | 631.8 | 631.8 |
| 75° | 238.2 | 336.0 | 478.9 | 476.4 | 461.3 |
| 77.5° | 180.5 | 280.8 | 393.6 | 336.0 | 338.5 |
| 80° | 130.4 | 225.7 | 248.2 | 248.2 | 250.7 |
| 82.5° | 87.8 | 173.0 | 160.5 | 158.0 | 163.0 |
| 85° | 52.7 | 80.2 | 82.7 | 75.2 | 77.7 |
| 87.5° | 25.1 | 27.6 | 22.6 | 15.0 | 15.0 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)