

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: P263866

Luminaire Tested: **24CZ-LD5-75-RDP-UNV-L92765-W2A1-U-6500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P263866
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-LD5-75-RDP-UNV-L92765-W2A1-U-6500K
Description: CRUZE 2x4 TUNABLE WHITE LED TROFFER
WITH RDP LENS
Light Source: (336) 90 CRI LEDS TUNED AT 6500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4972.0 lumens
Efficiency: N/A
Efficacy: 81.4 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

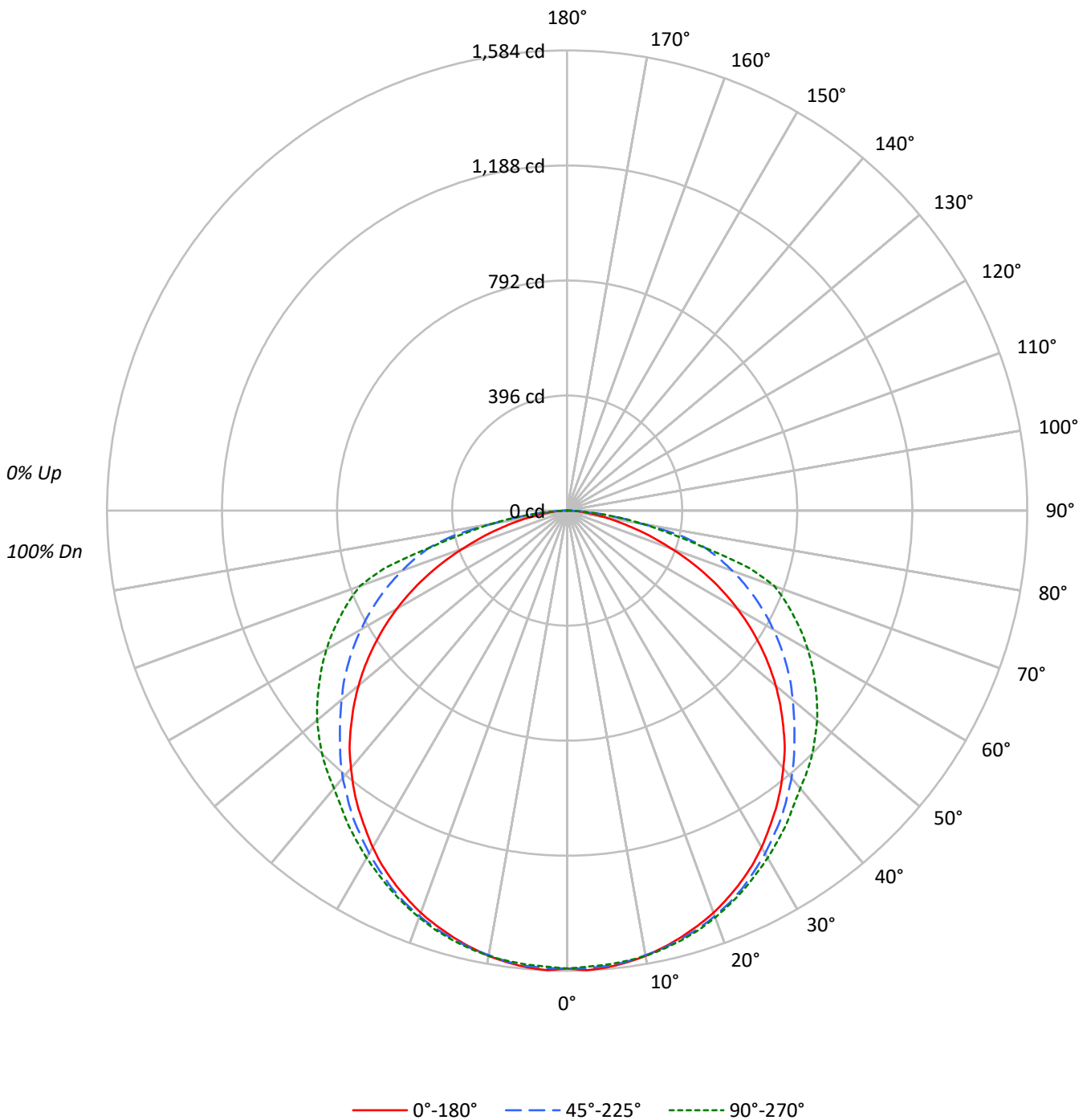
Input Watts (W): 61.101
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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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 | 61 | 73 | 66 | 60 | 70 | 64 | 59 | 67 | 62 | 58 | 56 |
| 4 | 81 | 68 | 59 | 52 | 78 | 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 | 61 | 48 | 40 | 34 | 47 | 39 | 34 | 45 | 38 | 33 | 44 | 38 | 33 | 31 |
| 8 | 59 | 45 | 36 | 30 | 57 | 44 | 36 | 30 | 43 | 35 | 30 | 42 | 35 | 30 | 40 | 34 | 29 | 27 |
| 9 | 55 | 41 | 33 | 27 | 53 | 41 | 32 | 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° | 2121 | 2121 | 2121 |
| 5° | 2132 | 2125 | 2119 |
| 10° | 2127 | 2123 | 2127 |
| 15° | 2117 | 2124 | 2131 |
| 20° | 2110 | 2127 | 2134 |
| 25° | 2097 | 2126 | 2136 |
| 30° | 2080 | 2118 | 2145 |
| 35° | 2058 | 2115 | 2163 |
| 40° | 2033 | 2111 | 2192 |
| 45° | 2003 | 2105 | 2268 |
| 50° | 1962 | 2121 | 2352 |
| 55° | 1906 | 2159 | 2446 |
| 60° | 1824 | 2206 | 2575 |
| 65° | 1699 | 2275 | 2743 |
| 70° | 1502 | 2378 | 2985 |
| 75° | 1260 | 2545 | 2507 |
| 80° | 1005 | 2010 | 2086 |
| 85° | 794 | 1360 | 1247 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 149.5 | 3.0 |
| 10°-20° | 430.2 | 8.7 |
| 20°-30° | 657.2 | 13.2 |
| 30°-40° | 803.4 | 16.2 |
| 40°-50° | 860.0 | 17.3 |
| 50°-60° | 824.9 | 16.6 |
| 60°-70° | 696.5 | 14.0 |
| 70°-80° | 445.1 | 9.0 |
| 80°-90° | 105.3 | 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° | 1236.9 | 24.9 |
| 0°-40° | 2040.3 | 41.0 |
| 0°-60° | 3725.1 | 74.9 |
| 0°-90° | 4972.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 4972.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1576 | 1576 | 1576 | 1576 | 1576 | |
| 5° | 1579 | 1569 | 1574 | 1571 | 1569 | 150 |
| 15° | 1520 | 1515 | 1525 | 1530 | 1530 | 429 |
| 25° | 1412 | 1410 | 1432 | 1437 | 1439 | 651 |
| 35° | 1253 | 1263 | 1287 | 1304 | 1317 | 783 |
| 45° | 1052 | 1070 | 1106 | 1158 | 1192 | 812 |
| 55° | 813 | 840 | 920 | 1004 | 1043 | 725 |
| 65° | 534 | 585 | 715 | 815 | 862 | 526 |
| 75° | 242 | 345 | 490 | 499 | 482 | 261 |
| 85° | 51 | 86 | 88 | 86 | 81 | 62 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P263866

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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1576.2 | 1576.2 | 1576.2 | 1576.2 | 1576.2 |
| 2.5° | 1583.5 | 1573.7 | 1576.2 | 1576.2 | 1571.3 |
| 5° | 1578.6 | 1568.8 | 1573.7 | 1571.3 | 1568.8 |
| 7.5° | 1568.8 | 1561.5 | 1566.4 | 1566.4 | 1563.9 |
| 10° | 1556.6 | 1549.2 | 1554.1 | 1556.6 | 1556.6 |
| 12.5° | 1539.5 | 1534.6 | 1541.9 | 1541.9 | 1544.3 |
| 15° | 1519.9 | 1515.0 | 1524.8 | 1529.7 | 1529.7 |
| 17.5° | 1497.8 | 1495.4 | 1507.6 | 1510.1 | 1512.5 |
| 20° | 1473.4 | 1470.9 | 1485.6 | 1485.6 | 1490.5 |
| 22.5° | 1444.0 | 1441.6 | 1461.1 | 1461.1 | 1466.0 |
| 25° | 1412.2 | 1409.7 | 1431.8 | 1436.7 | 1439.1 |
| 27.5° | 1377.9 | 1375.5 | 1397.5 | 1404.8 | 1409.7 |
| 30° | 1338.8 | 1338.8 | 1363.2 | 1373.0 | 1380.4 |
| 32.5° | 1294.7 | 1302.0 | 1324.1 | 1338.8 | 1348.6 |
| 35° | 1253.1 | 1262.9 | 1287.4 | 1304.5 | 1316.7 |
| 37.5° | 1206.6 | 1216.4 | 1243.3 | 1265.3 | 1280.0 |
| 40° | 1157.6 | 1169.9 | 1201.7 | 1226.2 | 1248.2 |
| 42.5° | 1108.7 | 1120.9 | 1155.2 | 1191.9 | 1221.3 |
| 45° | 1052.4 | 1069.5 | 1106.3 | 1157.6 | 1191.9 |
| 47.5° | 996.1 | 1013.2 | 1059.8 | 1123.4 | 1157.6 |
| 50° | 937.4 | 957.0 | 1013.2 | 1086.7 | 1123.4 |
| 52.5° | 876.2 | 898.2 | 969.2 | 1047.5 | 1084.2 |
| 55° | 812.6 | 839.5 | 920.2 | 1003.5 | 1042.6 |
| 57.5° | 746.5 | 775.8 | 871.3 | 959.4 | 1001.0 |
| 60° | 677.9 | 714.7 | 819.9 | 912.9 | 957.0 |
| 62.5° | 607.0 | 651.0 | 768.5 | 864.0 | 910.5 |
| 65° | 533.5 | 584.9 | 714.7 | 815.0 | 861.5 |
| 67.5° | 457.7 | 526.2 | 660.8 | 766.1 | 812.6 |
| 70° | 381.8 | 462.6 | 604.5 | 712.2 | 758.7 |
| 72.5° | 310.8 | 403.8 | 548.2 | 648.6 | 658.4 |
| 75° | 242.3 | 345.1 | 489.5 | 499.3 | 482.2 |
| 77.5° | 181.1 | 286.4 | 403.8 | 359.8 | 357.3 |
| 80° | 129.7 | 230.1 | 259.4 | 266.8 | 269.2 |
| 82.5° | 85.7 | 173.8 | 168.9 | 173.8 | 171.3 |
| 85° | 51.4 | 85.7 | 88.1 | 85.7 | 80.8 |
| 87.5° | 24.5 | 31.8 | 24.5 | 22.0 | 19.6 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)