

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: P#

Luminaire Tested: **24CZ-LD5-55SE-S-UNV-L835-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P#
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-LD5-55SE-S-UNV-L835-CD1-U
Description: CRUZE 2x4 LED TROFFER

Light Source: -
Ballast/Driver: -

Summary

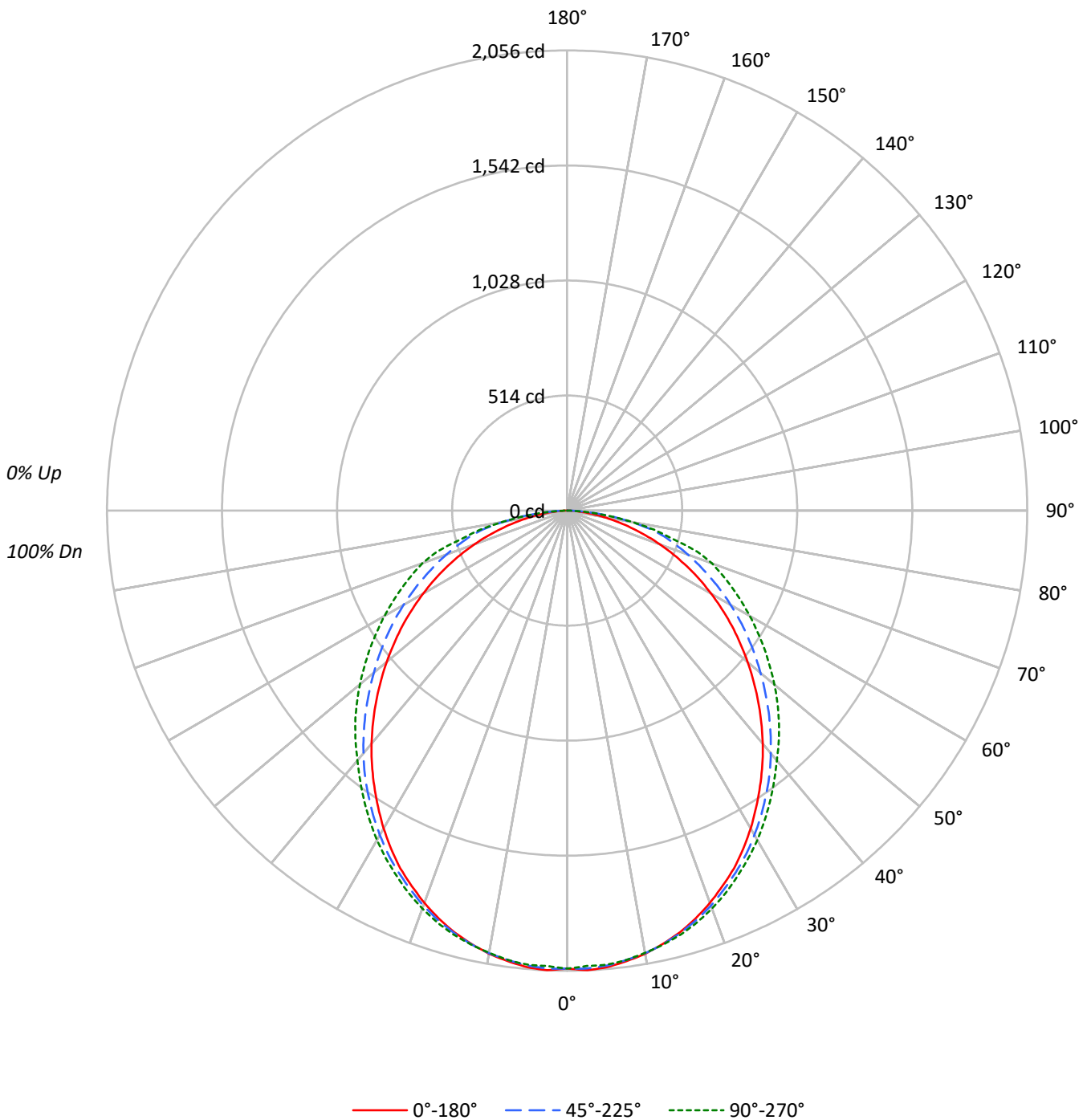
Lumens per Lamp: N/A
Luminaire Lumens: 5651.8 lumens
Efficiency: N/A
Efficacy: 103.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 4' x H: 0.1')
CIE Type: Direct

Input Watts (W): 54.69
Input Voltage (V): NR
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: P#

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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 | 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° | 2753 | 2753 | 2753 |
| 5° | 2760 | 2743 | 2739 |
| 10° | 2735 | 2719 | 2718 |
| 15° | 2698 | 2684 | 2696 |
| 20° | 2647 | 2639 | 2660 |
| 25° | 2589 | 2583 | 2614 |
| 30° | 2512 | 2523 | 2567 |
| 35° | 2426 | 2454 | 2510 |
| 40° | 2339 | 2381 | 2457 |
| 45° | 2241 | 2300 | 2427 |
| 50° | 2141 | 2221 | 2389 |
| 55° | 2036 | 2149 | 2355 |
| 60° | 1916 | 2081 | 2333 |
| 65° | 1784 | 2016 | 2336 |
| 70° | 1620 | 1970 | 2381 |
| 75° | 1404 | 1951 | 2126 |
| 80° | 1123 | 1702 | 1771 |
| 85° | 746 | 1102 | 1034 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 193.4 | 3.4 |
| 10°-20° | 550.2 | 9.7 |
| 20°-30° | 819.9 | 14.5 |
| 30°-40° | 965.1 | 17.1 |
| 40°-50° | 980.8 | 17.4 |
| 50°-60° | 881.8 | 15.6 |
| 60°-70° | 696.6 | 12.3 |
| 70°-80° | 442.0 | 7.8 |
| 80°-90° | 122.0 | 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° | 1563.5 | 27.7 |
| 0°-40° | 2528.7 | 44.7 |
| 0°-60° | 4391.3 | 77.7 |
| 0°-90° | 5651.8 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 5651.8 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 2046 | 2046 | 2046 | 2046 | 2046 | |
| 5° | 2048 | 2031 | 2040 | 2037 | 2037 | 194 |
| 15° | 1950 | 1941 | 1954 | 1960 | 1961 | 549 |
| 25° | 1764 | 1762 | 1783 | 1794 | 1802 | 811 |
| 35° | 1503 | 1512 | 1550 | 1566 | 1582 | 940 |
| 45° | 1207 | 1224 | 1273 | 1311 | 1339 | 932 |
| 55° | 899 | 922 | 985 | 1049 | 1076 | 803 |
| 65° | 590 | 621 | 705 | 782 | 812 | 585 |
| 75° | 295 | 346 | 450 | 489 | 485 | 314 |
| 85° | 62 | 107 | 115 | 105 | 105 | 76 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P#

CATALOG NUMBER: 24CZ-LD5-55SE-S-UNV-L835-CD1-U

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 2046.1 | 2046.1 | 2046.1 | 2046.1 | 2046.1 |
| 2.5° | 2055.5 | 2040.4 | 2047.9 | 2044.2 | 2036.7 |
| 5° | 2047.9 | 2031.0 | 2040.4 | 2036.7 | 2036.7 |
| 7.5° | 2031.0 | 2017.9 | 2025.4 | 2023.5 | 2025.4 |
| 10° | 2010.3 | 1997.2 | 2008.5 | 2008.5 | 2006.6 |
| 12.5° | 1982.1 | 1970.8 | 1984.0 | 1984.0 | 1985.9 |
| 15° | 1950.2 | 1940.8 | 1953.9 | 1959.6 | 1961.4 |
| 17.5° | 1910.7 | 1901.3 | 1918.2 | 1923.8 | 1929.5 |
| 20° | 1865.5 | 1861.8 | 1878.7 | 1884.3 | 1891.9 |
| 22.5° | 1814.8 | 1814.8 | 1831.7 | 1839.2 | 1850.5 |
| 25° | 1764.0 | 1762.1 | 1782.8 | 1794.1 | 1801.6 |
| 27.5° | 1703.8 | 1705.7 | 1732.0 | 1743.3 | 1752.7 |
| 30° | 1639.9 | 1643.6 | 1673.7 | 1686.9 | 1700.0 |
| 32.5° | 1572.2 | 1579.7 | 1613.5 | 1628.6 | 1641.7 |
| 35° | 1502.6 | 1512.0 | 1549.6 | 1566.5 | 1581.6 |
| 37.5° | 1433.0 | 1446.2 | 1485.7 | 1502.6 | 1519.5 |
| 40° | 1359.7 | 1370.9 | 1416.1 | 1436.8 | 1457.4 |
| 42.5° | 1284.4 | 1299.5 | 1344.6 | 1374.7 | 1399.1 |
| 45° | 1207.3 | 1224.3 | 1273.1 | 1310.8 | 1339.0 |
| 47.5° | 1130.2 | 1152.8 | 1199.8 | 1250.6 | 1275.0 |
| 50° | 1053.1 | 1075.7 | 1128.3 | 1184.8 | 1209.2 |
| 52.5° | 974.1 | 996.7 | 1056.9 | 1115.2 | 1141.5 |
| 55° | 898.9 | 921.5 | 985.4 | 1049.4 | 1075.7 |
| 57.5° | 819.9 | 844.4 | 915.8 | 981.7 | 1008.0 |
| 60° | 742.8 | 767.3 | 844.4 | 914.0 | 942.2 |
| 62.5° | 667.6 | 693.9 | 774.8 | 848.1 | 876.3 |
| 65° | 590.5 | 620.6 | 705.2 | 782.3 | 812.4 |
| 67.5° | 515.3 | 549.1 | 637.5 | 718.4 | 750.3 |
| 70° | 440.1 | 479.5 | 573.6 | 656.3 | 688.3 |
| 72.5° | 366.7 | 410.0 | 509.6 | 592.4 | 609.3 |
| 75° | 295.2 | 346.0 | 449.5 | 488.9 | 485.2 |
| 77.5° | 227.5 | 284.0 | 381.8 | 389.3 | 400.6 |
| 80° | 165.5 | 227.5 | 285.8 | 300.9 | 293.4 |
| 82.5° | 109.1 | 171.1 | 205.0 | 197.5 | 195.6 |
| 85° | 62.1 | 107.2 | 114.7 | 105.3 | 105.3 |
| 87.5° | 26.3 | 43.3 | 37.6 | 28.2 | 26.3 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)