

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: P276258

Luminaire Tested: **24CZ2-75HE-UNV-L92765-W2A1-U-2700K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P276258
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-5)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-75HE-UNV-L92765-W2A1-U-2700K
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER
WITH RIBBED LENS
Light Source: (336) 90 CRI LEDS TUNED TO 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5588.0 lumens
Efficiency: N/A
Efficacy: 95.8 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.27 / 1.37
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

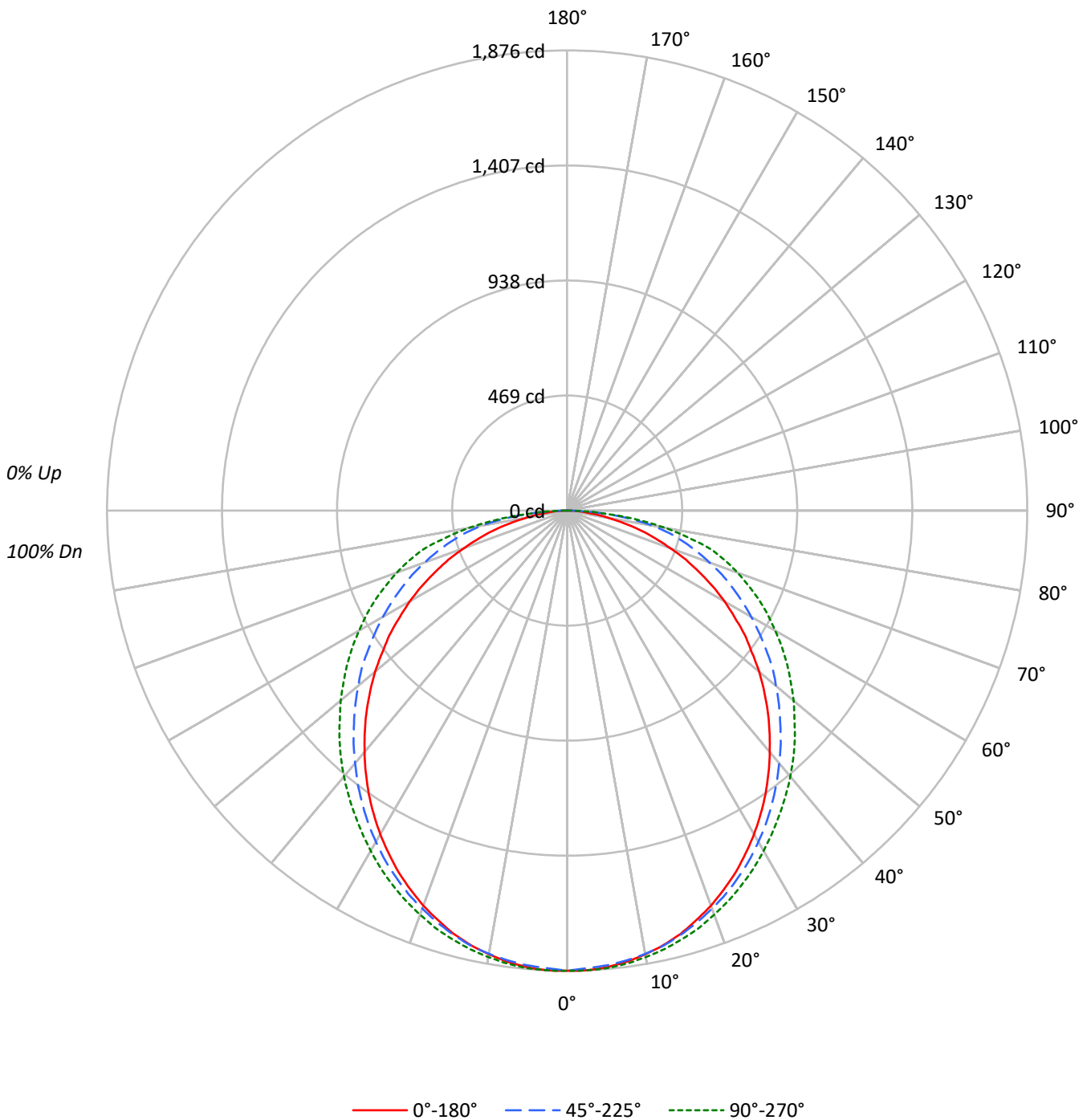
Input Watts (W): 58.311
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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 | 100 | 96 | 92 | 96 | 93 | 89 | 92 | 89 | 87 | 89 | 86 | 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 | 62 | 73 | 66 | 61 | 70 | 64 | 60 | 68 | 63 | 58 | 56 |
| 4 | 81 | 69 | 59 | 52 | 79 | 67 | 59 | 52 | 65 | 57 | 51 | 62 | 56 | 51 | 60 | 55 | 50 | 48 |
| 5 | 74 | 61 | 52 | 45 | 72 | 60 | 51 | 45 | 58 | 50 | 44 | 56 | 49 | 44 | 54 | 48 | 43 | 41 |
| 6 | 69 | 55 | 46 | 39 | 67 | 54 | 45 | 39 | 52 | 44 | 39 | 50 | 44 | 38 | 49 | 43 | 38 | 36 |
| 7 | 64 | 50 | 41 | 35 | 62 | 49 | 40 | 34 | 47 | 40 | 34 | 46 | 39 | 34 | 45 | 38 | 34 | 32 |
| 8 | 59 | 45 | 37 | 31 | 58 | 45 | 36 | 31 | 43 | 36 | 30 | 42 | 35 | 30 | 41 | 35 | 30 | 28 |
| 9 | 55 | 42 | 33 | 28 | 54 | 41 | 33 | 28 | 40 | 33 | 27 | 39 | 32 | 27 | 38 | 32 | 27 | 25 |
| 10 | 52 | 38 | 30 | 25 | 51 | 38 | 30 | 25 | 37 | 30 | 25 | 36 | 29 | 25 | 35 | 29 | 25 | 23 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 2524 | 2524 | 2524 |
| 5° | 2524 | 2514 | 2529 |
| 10° | 2510 | 2507 | 2525 |
| 15° | 2489 | 2494 | 2520 |
| 20° | 2454 | 2473 | 2510 |
| 25° | 2414 | 2450 | 2500 |
| 30° | 2367 | 2422 | 2489 |
| 35° | 2316 | 2392 | 2481 |
| 40° | 2257 | 2362 | 2486 |
| 45° | 2200 | 2339 | 2498 |
| 50° | 2139 | 2327 | 2522 |
| 55° | 2074 | 2323 | 2568 |
| 60° | 1992 | 2334 | 2635 |
| 65° | 1888 | 2369 | 2749 |
| 70° | 1753 | 2428 | 2905 |
| 75° | 1600 | 2550 | 3151 |
| 80° | 1315 | 2745 | 3150 |
| 85° | 1008 | 2533 | 2706 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 177.4 | 3.2 |
| 10°-20° | 506.6 | 9.1 |
| 20°-30° | 762.3 | 13.6 |
| 30°-40° | 913.6 | 16.3 |
| 40°-50° | 952.0 | 17.0 |
| 50°-60° | 885.7 | 15.9 |
| 60°-70° | 729.5 | 13.1 |
| 70°-80° | 496.8 | 8.9 |
| 80°-90° | 164.0 | 2.9 |
| 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° | 1446.3 | 25.9 |
| 0°-40° | 2359.9 | 42.2 |
| 0°-60° | 4197.6 | 75.1 |
| 0°-90° | 5588.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 5588.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1876 | 1876 | 1876 | 1876 | 1876 | |
| 5° | 1869 | 1869 | 1861 | 1871 | 1872 | 177 |
| 15° | 1787 | 1788 | 1790 | 1807 | 1809 | 503 |
| 25° | 1626 | 1634 | 1650 | 1678 | 1684 | 749 |
| 35° | 1410 | 1427 | 1456 | 1496 | 1511 | 881 |
| 45° | 1156 | 1180 | 1229 | 1291 | 1313 | 892 |
| 55° | 884 | 914 | 990 | 1069 | 1095 | 788 |
| 65° | 593 | 643 | 744 | 832 | 864 | 589 |
| 75° | 308 | 377 | 490 | 578 | 606 | 324 |
| 85° | 65 | 127 | 164 | 175 | 175 | 81 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P276258

CATALOG NUMBER: 24CZ2-75HE-UNV-L92765-W2A1-U-2700K

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1876.2 | 1876.2 | 1876.2 | 1876.2 | 1876.2 |
| 2.5° | 1876.2 | 1876.2 | 1866.8 | 1876.2 | 1876.2 |
| 5° | 1868.7 | 1868.7 | 1861.2 | 1870.6 | 1872.4 |
| 7.5° | 1855.6 | 1857.5 | 1850.0 | 1861.2 | 1863.1 |
| 10° | 1837.0 | 1838.9 | 1835.1 | 1846.3 | 1848.2 |
| 12.5° | 1814.6 | 1816.5 | 1816.5 | 1829.5 | 1831.4 |
| 15° | 1786.6 | 1788.5 | 1790.4 | 1807.2 | 1809.0 |
| 17.5° | 1751.2 | 1756.8 | 1760.5 | 1781.0 | 1784.8 |
| 20° | 1713.9 | 1719.5 | 1727.0 | 1749.3 | 1753.1 |
| 22.5° | 1671.0 | 1678.5 | 1691.5 | 1715.8 | 1721.4 |
| 25° | 1626.3 | 1633.7 | 1650.5 | 1678.5 | 1684.1 |
| 27.5° | 1575.9 | 1587.1 | 1607.6 | 1637.4 | 1644.9 |
| 30° | 1523.7 | 1534.9 | 1559.1 | 1590.8 | 1602.0 |
| 32.5° | 1467.7 | 1482.7 | 1510.6 | 1546.1 | 1557.2 |
| 35° | 1409.9 | 1426.7 | 1456.5 | 1495.7 | 1510.6 |
| 37.5° | 1348.4 | 1367.0 | 1402.5 | 1445.4 | 1464.0 |
| 40° | 1285.0 | 1307.3 | 1344.6 | 1395.0 | 1415.5 |
| 42.5° | 1221.6 | 1242.1 | 1288.7 | 1342.8 | 1365.2 |
| 45° | 1156.3 | 1180.5 | 1229.0 | 1290.6 | 1312.9 |
| 47.5° | 1089.1 | 1113.4 | 1171.2 | 1236.5 | 1257.0 |
| 50° | 1022.0 | 1046.2 | 1111.5 | 1180.5 | 1204.8 |
| 52.5° | 949.3 | 981.0 | 1055.6 | 1124.6 | 1148.8 |
| 55° | 884.0 | 913.8 | 990.3 | 1068.6 | 1094.7 |
| 57.5° | 809.4 | 844.8 | 928.8 | 1010.8 | 1038.8 |
| 60° | 740.4 | 777.7 | 867.2 | 951.1 | 979.1 |
| 62.5° | 669.5 | 710.6 | 805.7 | 891.5 | 923.2 |
| 65° | 593.1 | 643.4 | 744.1 | 831.8 | 863.5 |
| 67.5° | 524.1 | 576.3 | 682.6 | 772.1 | 800.1 |
| 70° | 445.7 | 509.1 | 617.3 | 706.8 | 738.5 |
| 72.5° | 378.6 | 442.0 | 555.8 | 643.4 | 675.1 |
| 75° | 307.7 | 376.7 | 490.5 | 578.1 | 606.1 |
| 77.5° | 236.9 | 313.3 | 427.1 | 494.2 | 503.5 |
| 80° | 169.7 | 249.9 | 354.3 | 393.5 | 406.6 |
| 82.5° | 119.4 | 192.1 | 261.1 | 287.2 | 294.7 |
| 85° | 65.3 | 126.8 | 164.1 | 175.3 | 175.3 |
| 87.5° | 28.0 | 54.1 | 65.3 | 67.1 | 69.0 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)