

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: P261211

Luminaire Tested: **24CZ-LD5-75-S-UNV-L82765-W2A1-U-6500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P261211
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-LD5-75-S-UNV-L82765-W2A1-U-6500K
Description: CRUZE 2x4 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS
Light Source: (336) 80 CRI LEDS TUNED AT 6500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8037.0 lumens
Efficiency: N/A
Efficacy: 131.7 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

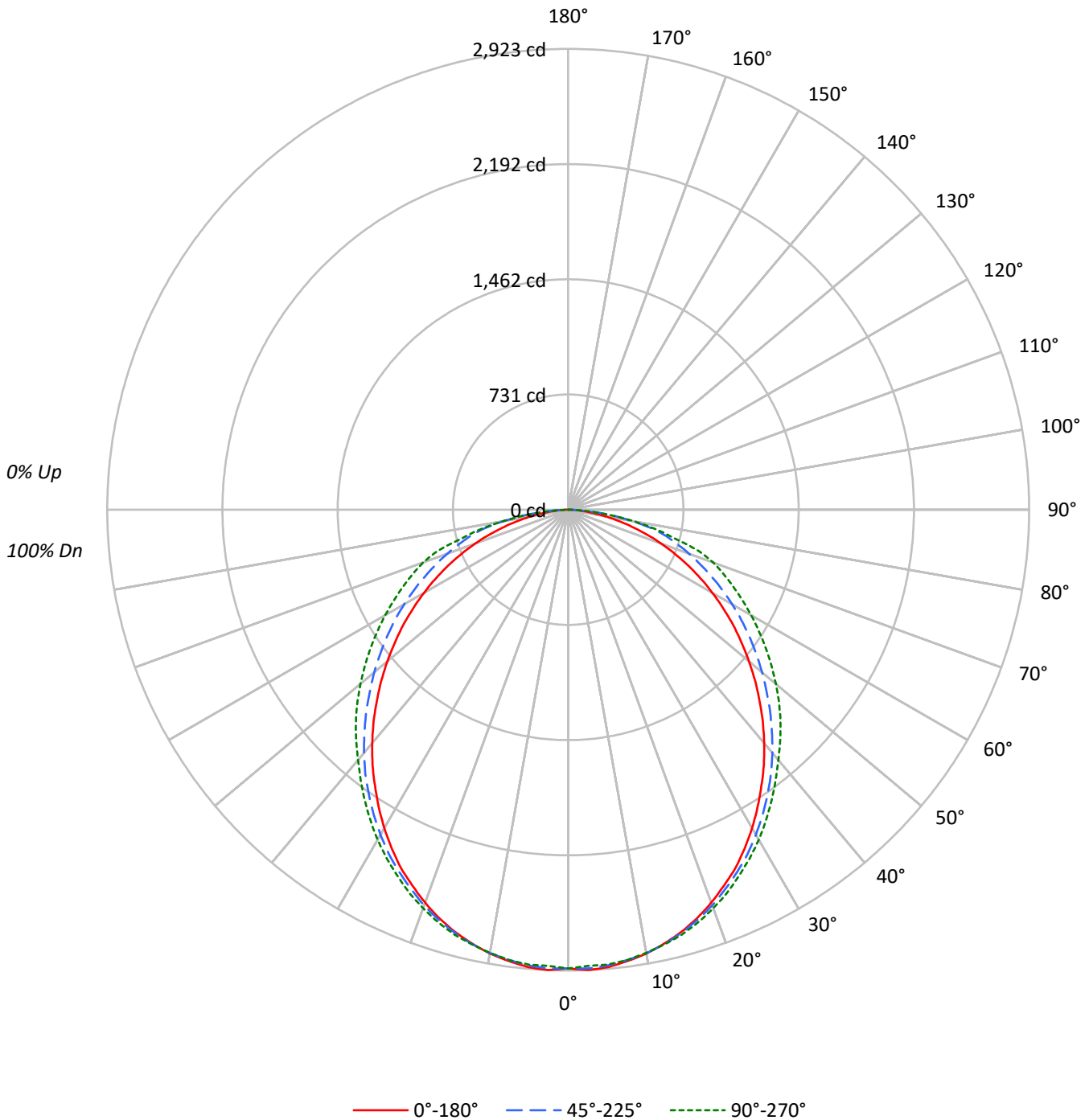
Input Watts (W): 61.008
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P261211

CATALOG NUMBER: 24CZ-LD5-75-S-UNV-L82765-W2A1-U-6500K

Luminous Intensity Polar Plot





TEST NUMBER: P261211

CATALOG NUMBER: 24CZ-LD5-75-S-UNV-L82765-W2A1-U-6500K

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

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 3915 | 3915 | 3915 |
| 5° | 3933 | 3919 | 3912 |
| 10° | 3906 | 3902 | 3898 |
| 15° | 3863 | 3870 | 3885 |
| 20° | 3798 | 3825 | 3852 |
| 25° | 3724 | 3764 | 3803 |
| 30° | 3623 | 3698 | 3756 |
| 35° | 3510 | 3619 | 3694 |
| 40° | 3396 | 3537 | 3640 |
| 45° | 3267 | 3445 | 3623 |
| 50° | 3135 | 3359 | 3599 |
| 55° | 2999 | 3287 | 3588 |
| 60° | 2842 | 3231 | 3605 |
| 65° | 2673 | 3193 | 3678 |
| 70° | 2462 | 3209 | 3851 |
| 75° | 2183 | 3322 | 3586 |
| 80° | 1823 | 3150 | 3233 |
| 85° | 1362 | 2518 | 2313 |



TEST NUMBER: P261211

CATALOG NUMBER: 24CZ-LD5-75-S-UNV-L82765-W2A1-U-6500K

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 275.1 | 3.4 |
| 10°-20° | 782.3 | 9.7 |
| 20°-30° | 1165.9 | 14.5 |
| 30°-40° | 1372.5 | 17.1 |
| 40°-50° | 1394.7 | 17.4 |
| 50°-60° | 1253.9 | 15.6 |
| 60°-70° | 990.6 | 12.3 |
| 70°-80° | 628.5 | 7.8 |
| 80°-90° | 173.5 | 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° | 2223.3 | 27.7 |
| 0°-40° | 3595.8 | 44.7 |
| 0°-60° | 6244.4 | 77.7 |
| 0°-90° | 8037.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 8037.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 2910 | 2910 | 2910 | 2910 | 2910 | |
| 5° | 2912 | 2888 | 2902 | 2896 | 2896 | 276 |
| 15° | 2773 | 2760 | 2778 | 2786 | 2789 | 781 |
| 25° | 2508 | 2506 | 2535 | 2551 | 2562 | 1153 |
| 35° | 2137 | 2150 | 2204 | 2228 | 2249 | 1337 |
| 45° | 1717 | 1741 | 1810 | 1864 | 1904 | 1325 |
| 55° | 1278 | 1310 | 1401 | 1492 | 1530 | 1142 |
| 65° | 840 | 882 | 1003 | 1112 | 1155 | 832 |
| 75° | 420 | 492 | 639 | 695 | 690 | 447 |
| 85° | 88 | 152 | 163 | 150 | 150 | 108 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P261211

CATALOG NUMBER: 24CZ-LD5-75-S-UNV-L82765-W2A1-U-6500K

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 2909.5 | 2909.5 | 2909.5 | 2909.5 | 2909.5 |
| 2.5° | 2922.9 | 2901.5 | 2912.2 | 2906.9 | 2896.2 |
| 5° | 2912.2 | 2888.1 | 2901.5 | 2896.2 | 2896.2 |
| 7.5° | 2888.1 | 2869.4 | 2880.1 | 2877.5 | 2880.1 |
| 10° | 2858.7 | 2840.0 | 2856.1 | 2856.1 | 2853.4 |
| 12.5° | 2818.6 | 2802.6 | 2821.3 | 2821.3 | 2824.0 |
| 15° | 2773.2 | 2759.8 | 2778.5 | 2786.5 | 2789.2 |
| 17.5° | 2717.0 | 2703.6 | 2727.7 | 2735.7 | 2743.7 |
| 20° | 2652.8 | 2647.5 | 2671.5 | 2679.6 | 2690.3 |
| 22.5° | 2580.6 | 2580.6 | 2604.7 | 2615.4 | 2631.4 |
| 25° | 2508.4 | 2505.7 | 2535.2 | 2551.2 | 2561.9 |
| 27.5° | 2422.8 | 2425.5 | 2462.9 | 2479.0 | 2492.4 |
| 30° | 2331.9 | 2337.3 | 2380.0 | 2398.8 | 2417.5 |
| 32.5° | 2235.6 | 2246.3 | 2294.5 | 2315.9 | 2334.6 |
| 35° | 2136.7 | 2150.1 | 2203.6 | 2227.6 | 2249.0 |
| 37.5° | 2037.7 | 2056.5 | 2112.6 | 2136.7 | 2160.8 |
| 40° | 1933.5 | 1949.5 | 2013.7 | 2043.1 | 2072.5 |
| 42.5° | 1826.5 | 1847.9 | 1912.1 | 1954.8 | 1989.6 |
| 45° | 1716.8 | 1740.9 | 1810.4 | 1863.9 | 1904.0 |
| 47.5° | 1607.2 | 1639.3 | 1706.1 | 1778.4 | 1813.1 |
| 50° | 1497.6 | 1529.6 | 1604.5 | 1684.8 | 1719.5 |
| 52.5° | 1385.2 | 1417.3 | 1502.9 | 1585.8 | 1623.2 |
| 55° | 1278.3 | 1310.4 | 1401.3 | 1492.2 | 1529.6 |
| 57.5° | 1166.0 | 1200.7 | 1302.3 | 1395.9 | 1433.4 |
| 60° | 1056.3 | 1091.1 | 1200.7 | 1299.7 | 1339.8 |
| 62.5° | 949.3 | 986.8 | 1101.8 | 1206.1 | 1246.2 |
| 65° | 839.7 | 882.5 | 1002.8 | 1112.5 | 1155.3 |
| 67.5° | 732.7 | 780.9 | 906.6 | 1021.5 | 1067.0 |
| 70° | 625.8 | 681.9 | 815.6 | 933.3 | 978.8 |
| 72.5° | 521.5 | 583.0 | 724.7 | 842.4 | 866.4 |
| 75° | 419.9 | 492.1 | 639.1 | 695.3 | 689.9 |
| 77.5° | 323.6 | 403.8 | 542.9 | 553.6 | 569.6 |
| 80° | 235.3 | 323.6 | 406.5 | 427.9 | 417.2 |
| 82.5° | 155.1 | 243.4 | 291.5 | 280.8 | 278.1 |
| 85° | 88.2 | 152.4 | 163.1 | 149.8 | 149.8 |
| 87.5° | 37.4 | 61.5 | 53.5 | 40.1 | 37.4 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)