

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: P275695

Luminaire Tested: **14CZ2-29-S-UNV-L92765-W2A1-U-5700K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P275695  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-40)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 14CZ2-29-S-UNV-L92765-W2A1-U-5700K  
Description: CRUZE 2.0 1x4 TUNABLE WHITE LED TROFFER  
WITH SMOOTH LENS  
Light Source: (168) 90 CRI LEDS TUNED TO 5700K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2762.0 lumens  
Efficiency: N/A  
Efficacy: 121.2 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.26 / 1.36  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

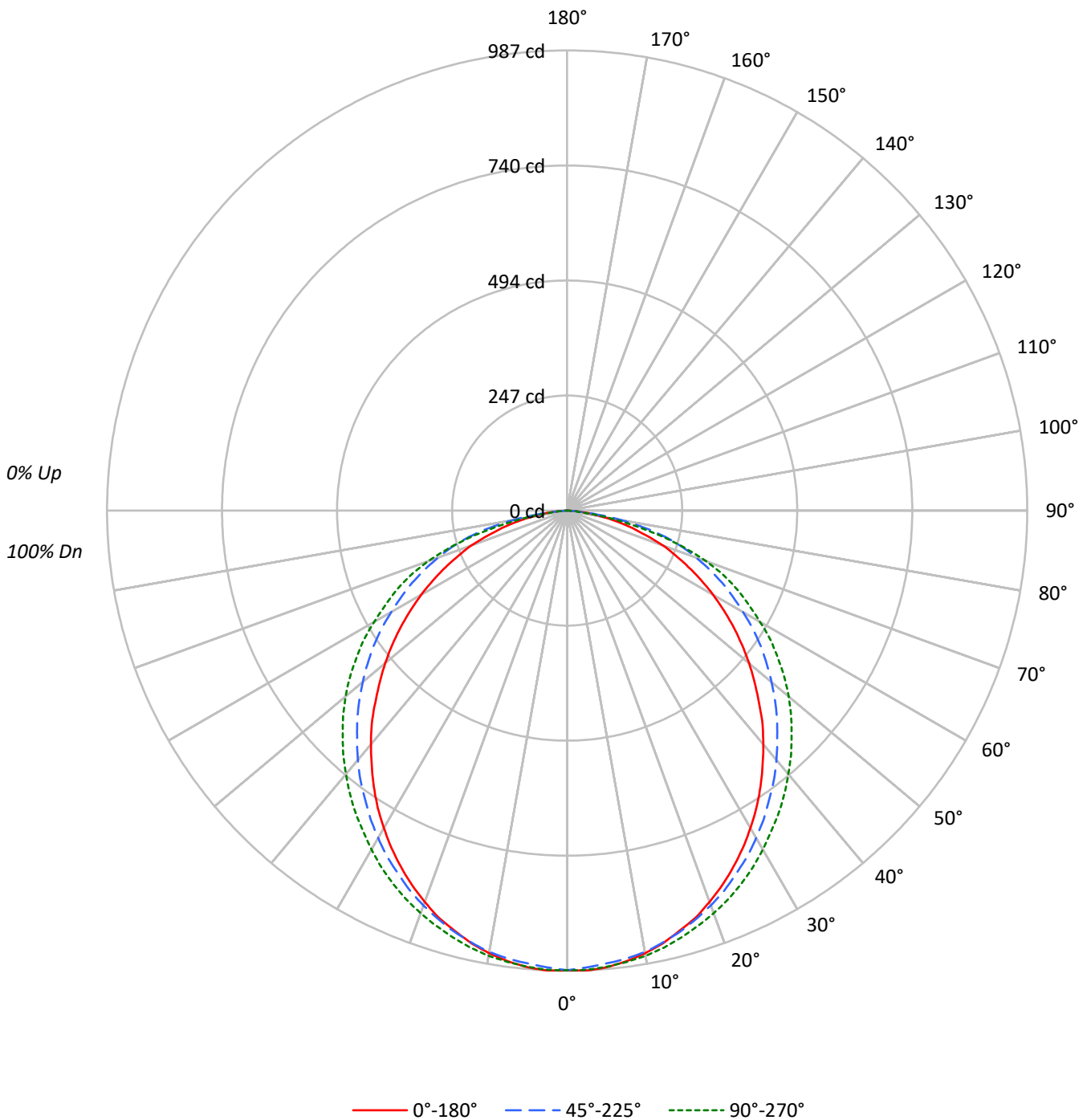
Input Watts (W): 22.785  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P275695

CATALOG NUMBER: 14CZ2-29-S-UNV-L92765-W2A1-U-5700K

### Luminous Intensity Polar Plot





TEST NUMBER: P275695

CATALOG NUMBER: 14CZ2-29-S-UNV-L92765-W2A1-U-5700K

**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   | 109 | 104 | 100 | 96  | 106 | 102 | 98  | 94  | 97  | 94  | 91  | 94  | 91  | 89  | 90  | 88  | 86  | 84  |
| 2   | 99  | 90  | 84  | 78  | 96  | 89  | 82  | 77  | 85  | 80  | 75  | 82  | 77  | 73  | 79  | 75  | 72  | 70  |
| 3   | 90  | 79  | 71  | 65  | 87  | 78  | 70  | 64  | 75  | 68  | 63  | 72  | 66  | 62  | 69  | 65  | 61  | 58  |
| 4   | 82  | 70  | 61  | 55  | 80  | 69  | 61  | 54  | 66  | 59  | 53  | 64  | 58  | 53  | 62  | 56  | 52  | 50  |
| 5   | 76  | 63  | 54  | 47  | 74  | 62  | 53  | 47  | 59  | 52  | 46  | 57  | 51  | 46  | 56  | 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  | 28  | 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°  | 2653 | 2653 | 2653 |
| 5°  | 2656 | 2634 | 2652 |
| 10° | 2634 | 2627 | 2649 |
| 15° | 2598 | 2606 | 2640 |
| 20° | 2557 | 2580 | 2631 |
| 25° | 2505 | 2549 | 2623 |
| 30° | 2443 | 2519 | 2609 |
| 35° | 2375 | 2483 | 2600 |
| 40° | 2299 | 2453 | 2593 |
| 45° | 2215 | 2423 | 2590 |
| 50° | 2133 | 2396 | 2597 |
| 55° | 2043 | 2377 | 2589 |
| 60° | 1946 | 2344 | 2572 |
| 65° | 1831 | 2337 | 2572 |
| 70° | 1724 | 2316 | 2500 |
| 75° | 1495 | 2263 | 2136 |
| 80° | 1210 | 1826 | 1423 |
| 85° | 803  | 633  | 423  |



TEST NUMBER: P275695

CATALOG NUMBER: 14CZ2-29-S-UNV-L92765-W2A1-U-5700K

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 93.1   | 3.4       |
| 10°-20°   | 264.9  | 9.6       |
| 20°-30°   | 397.4  | 14.4      |
| 30°-40°   | 474.1  | 17.2      |
| 40°-50°   | 490.1  | 17.7      |
| 50°-60°   | 447.5  | 16.2      |
| 60°-70°   | 352.1  | 12.7      |
| 70°-80°   | 205.0  | 7.4       |
| 80°-90°   | 37.8   | 1.4       |
| 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°    | 755.5  | 27.4      |
| 0°-40°    | 1229.5 | 44.5      |
| 0°-60°    | 2167.1 | 78.5      |
| 0°-90°    | 2762.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 2762.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0°  | 986 | 986   | 986 | 986   | 986 |      |
| 5°  | 983 | 980   | 975 | 983   | 982 | 93   |
| 15° | 933 | 934   | 935 | 948   | 948 | 263  |
| 25° | 844 | 848   | 859 | 879   | 883 | 388  |
| 35° | 723 | 733   | 756 | 785   | 792 | 452  |
| 45° | 582 | 601   | 637 | 672   | 681 | 449  |
| 55° | 436 | 459   | 507 | 544   | 552 | 389  |
| 65° | 288 | 318   | 367 | 396   | 404 | 286  |
| 75° | 144 | 178   | 218 | 214   | 205 | 153  |
| 85° | 26  | 37    | 20  | 16    | 14  | 34   |
| 90° | 0   | 0     | 0   | 0     | 0   |      |



TEST NUMBER: P275695

CATALOG NUMBER: 14CZ2-29-S-UNV-L92765-W2A1-U-5700K

**CANDELA DISTRIBUTION (FULL):**

|       | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|-------|-------|-------|-------|-------|-------|
| 0°    | 986.0 | 986.0 | 986.0 | 986.0 | 986.0 |
| 2.5°  | 987.4 | 984.6 | 980.5 | 987.4 | 986.0 |
| 5°    | 983.2 | 980.5 | 975.0 | 983.2 | 981.9 |
| 7.5°  | 975.0 | 972.3 | 969.6 | 977.8 | 976.4 |
| 10°   | 964.1 | 962.7 | 961.3 | 970.9 | 969.6 |
| 12.5° | 950.4 | 950.4 | 949.0 | 960.0 | 960.0 |
| 15°   | 932.6 | 933.9 | 935.3 | 947.6 | 947.6 |
| 17.5° | 916.1 | 914.8 | 918.9 | 932.6 | 933.9 |
| 20°   | 892.9 | 895.6 | 901.1 | 917.5 | 918.9 |
| 22.5° | 869.6 | 872.3 | 881.9 | 898.3 | 902.5 |
| 25°   | 843.6 | 847.7 | 858.6 | 879.2 | 883.3 |
| 27.5° | 816.2 | 821.7 | 836.7 | 858.6 | 862.7 |
| 30°   | 786.1 | 794.3 | 810.7 | 835.4 | 839.5 |
| 32.5° | 755.9 | 764.1 | 784.7 | 809.3 | 814.8 |
| 35°   | 723.1 | 732.6 | 755.9 | 784.7 | 791.5 |
| 37.5° | 688.8 | 701.1 | 728.5 | 757.3 | 765.5 |
| 40°   | 654.6 | 668.3 | 698.4 | 728.5 | 738.1 |
| 42.5° | 620.4 | 634.0 | 666.9 | 701.1 | 710.7 |
| 45°   | 582.0 | 601.2 | 636.8 | 672.4 | 680.6 |
| 47.5° | 545.0 | 565.6 | 605.3 | 640.9 | 651.8 |
| 50°   | 509.4 | 530.0 | 572.4 | 609.4 | 620.4 |
| 52.5° | 472.5 | 494.4 | 539.6 | 577.9 | 587.5 |
| 55°   | 435.5 | 458.8 | 506.7 | 543.7 | 551.9 |
| 57.5° | 398.5 | 423.2 | 472.5 | 508.1 | 517.6 |
| 60°   | 361.5 | 387.5 | 435.5 | 471.1 | 477.9 |
| 62.5° | 324.6 | 351.9 | 401.2 | 432.7 | 439.6 |
| 65°   | 287.6 | 317.7 | 367.0 | 395.8 | 404.0 |
| 67.5° | 252.0 | 282.1 | 330.0 | 357.4 | 364.3 |
| 70°   | 219.1 | 246.5 | 294.4 | 315.0 | 317.7 |
| 72.5° | 178.0 | 212.3 | 258.8 | 269.8 | 262.9 |
| 75°   | 143.8 | 178.0 | 217.7 | 213.6 | 205.4 |
| 77.5° | 109.6 | 143.8 | 169.8 | 156.1 | 145.2 |
| 80°   | 78.1  | 112.3 | 117.8 | 97.2  | 91.8  |
| 82.5° | 50.7  | 78.1  | 65.7  | 50.7  | 41.1  |
| 85°   | 26.0  | 37.0  | 20.5  | 16.4  | 13.7  |
| 87.5° | 8.2   | 5.5   | 2.7   | 2.7   | 1.4   |
| 90°   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |

(END OF REPORT)