

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: P259296

Luminaire Tested: **22CZ-LD5-34-UNV-L82765-W2A1-U-3000K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P259296
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25706)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ-LD5-34-UNV-L82765-W2A1-U-3000K
Description: CRUZE 2x2 TUNABLE WHITE LED TROFFER WITH RIBBED LENS
Light Source: (168) 80 CRI LEDS TUNED AT 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3244.0 lumens
Efficiency: N/A
Efficacy: 127.3 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 1.26 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

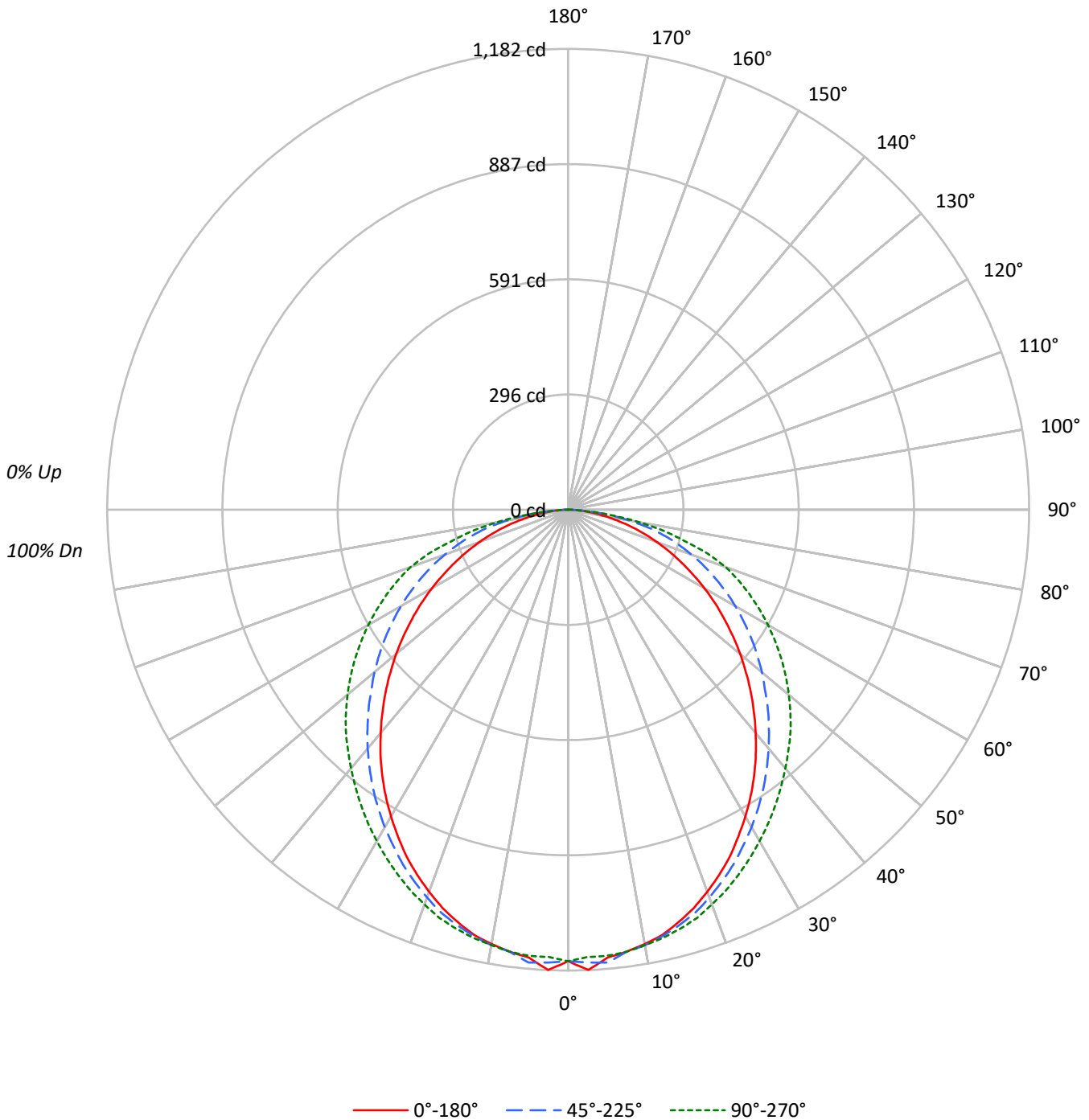
Input Watts (W): 25.482
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P259296

CATALOG NUMBER: 22CZ-LD5-34-UNV-L82765-W2A1-U-3000K

Luminous Intensity Polar Plot





TEST NUMBER: P259296

CATALOG NUMBER: 22CZ-LD5-34-UNV-L82765-W2A1-U-3000K

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 | 98 | 90 | 83 | 77 | 96 | 88 | 82 | 76 | 84 | 79 | 74 | 81 | 77 | 73 | 78 | 74 | 71 | 69 |
| 3 | 90 | 79 | 70 | 64 | 87 | 77 | 69 | 63 | 74 | 68 | 62 | 71 | 66 | 61 | 69 | 64 | 60 | 58 |
| 4 | 82 | 70 | 61 | 54 | 80 | 68 | 60 | 54 | 66 | 59 | 53 | 64 | 57 | 52 | 61 | 56 | 51 | 49 |
| 5 | 75 | 62 | 53 | 46 | 73 | 61 | 53 | 46 | 59 | 51 | 46 | 57 | 50 | 45 | 55 | 49 | 45 | 43 |
| 6 | 70 | 56 | 47 | 41 | 68 | 55 | 47 | 40 | 53 | 46 | 40 | 52 | 45 | 40 | 50 | 44 | 39 | 37 |
| 7 | 65 | 51 | 42 | 36 | 63 | 50 | 42 | 36 | 48 | 41 | 35 | 47 | 40 | 35 | 46 | 40 | 35 | 33 |
| 8 | 60 | 46 | 38 | 32 | 58 | 46 | 38 | 32 | 44 | 37 | 32 | 43 | 36 | 31 | 42 | 36 | 31 | 29 |
| 9 | 56 | 43 | 34 | 29 | 55 | 42 | 34 | 29 | 41 | 34 | 29 | 40 | 33 | 28 | 39 | 33 | 28 | 26 |
| 10 | 53 | 39 | 31 | 26 | 51 | 39 | 31 | 26 | 38 | 31 | 26 | 37 | 30 | 26 | 36 | 30 | 26 | 24 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 3116 | 3116 | 3116 |
| 5° | 3115 | 3149 | 3102 |
| 10° | 3091 | 3099 | 3099 |
| 15° | 3050 | 3072 | 3098 |
| 20° | 2986 | 3031 | 3085 |
| 25° | 2913 | 2979 | 3068 |
| 30° | 2823 | 2921 | 3049 |
| 35° | 2731 | 2866 | 3042 |
| 40° | 2627 | 2810 | 3042 |
| 45° | 2522 | 2756 | 3068 |
| 50° | 2411 | 2714 | 3091 |
| 55° | 2294 | 2686 | 3131 |
| 60° | 2173 | 2666 | 3184 |
| 65° | 2039 | 2652 | 3265 |
| 70° | 1899 | 2644 | 3376 |
| 75° | 1722 | 2641 | 3198 |
| 80° | 1491 | 2445 | 2836 |
| 85° | 1266 | 1849 | 1803 |



TEST NUMBER: P259296

CATALOG NUMBER: 22CZ-LD5-34-UNV-L82765-W2A1-U-3000K

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 109.8 | 3.4 |
| 10°-20° | 311.1 | 9.6 |
| 20°-30° | 462.8 | 14.3 |
| 30°-40° | 547.3 | 16.9 |
| 40°-50° | 562.5 | 17.3 |
| 50°-60° | 514.0 | 15.8 |
| 60°-70° | 411.2 | 12.7 |
| 70°-80° | 258.1 | 8.0 |
| 80°-90° | 67.2 | 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 |
| <hr/> | | |
| 0°-30° | 883.7 | 27.2 |
| 0°-40° | 1431.0 | 44.1 |
| 0°-60° | 2507.5 | 77.3 |
| 0°-90° | 3244.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 3244.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1158 | 1158 | 1158 | 1158 | 1158 | |
| 5° | 1153 | 1153 | 1166 | 1158 | 1148 | 110 |
| 15° | 1095 | 1096 | 1103 | 1109 | 1112 | 308 |
| 25° | 981 | 988 | 1003 | 1021 | 1033 | 451 |
| 35° | 831 | 842 | 872 | 906 | 926 | 520 |
| 45° | 663 | 680 | 724 | 778 | 806 | 511 |
| 55° | 489 | 513 | 573 | 636 | 667 | 437 |
| 65° | 320 | 349 | 416 | 480 | 513 | 318 |
| 75° | 166 | 197 | 254 | 292 | 308 | 176 |
| 85° | 41 | 52 | 60 | 58 | 58 | 47 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P259296

CATALOG NUMBER: 22CZ-LD5-34-UNV-L82765-W2A1-U-3000K

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1157.9 | 1157.9 | 1157.9 | 1157.9 | 1157.9 |
| 2.5° | 1181.6 | 1176.8 | 1162.6 | 1153.2 | 1148.4 |
| 5° | 1153.2 | 1153.2 | 1165.8 | 1157.9 | 1148.4 |
| 7.5° | 1143.7 | 1143.7 | 1143.7 | 1167.4 | 1143.7 |
| 10° | 1131.1 | 1132.7 | 1134.2 | 1143.7 | 1134.2 |
| 12.5° | 1116.9 | 1116.9 | 1120.0 | 1123.2 | 1124.8 |
| 15° | 1094.8 | 1096.4 | 1102.7 | 1109.0 | 1112.1 |
| 17.5° | 1071.1 | 1075.9 | 1083.7 | 1091.6 | 1097.9 |
| 20° | 1042.7 | 1049.0 | 1058.5 | 1071.1 | 1077.4 |
| 22.5° | 1012.8 | 1019.1 | 1031.7 | 1045.9 | 1056.9 |
| 25° | 981.2 | 987.5 | 1003.3 | 1020.6 | 1033.3 |
| 27.5° | 944.9 | 952.8 | 971.7 | 995.4 | 1008.0 |
| 30° | 908.6 | 918.1 | 940.2 | 967.0 | 981.2 |
| 32.5° | 870.8 | 881.8 | 907.1 | 937.0 | 954.4 |
| 35° | 831.3 | 842.4 | 872.4 | 905.5 | 926.0 |
| 37.5° | 790.3 | 803.0 | 836.1 | 873.9 | 896.0 |
| 40° | 747.7 | 761.9 | 799.8 | 840.8 | 866.1 |
| 42.5° | 705.1 | 720.9 | 761.9 | 810.8 | 836.1 |
| 45° | 662.6 | 679.9 | 724.1 | 777.7 | 806.1 |
| 47.5° | 618.4 | 638.9 | 684.6 | 744.6 | 773.0 |
| 50° | 575.8 | 596.3 | 648.4 | 709.9 | 738.3 |
| 52.5° | 531.6 | 555.3 | 610.5 | 673.6 | 703.6 |
| 55° | 489.0 | 512.7 | 572.6 | 635.7 | 667.3 |
| 57.5° | 446.4 | 470.1 | 533.2 | 597.9 | 629.4 |
| 60° | 403.8 | 429.1 | 495.3 | 558.4 | 591.6 |
| 62.5° | 361.2 | 388.1 | 455.9 | 520.6 | 552.1 |
| 65° | 320.2 | 348.6 | 416.5 | 479.6 | 512.7 |
| 67.5° | 280.8 | 310.8 | 377.0 | 438.5 | 471.7 |
| 70° | 241.4 | 271.3 | 336.0 | 396.0 | 429.1 |
| 72.5° | 203.5 | 233.5 | 296.6 | 350.2 | 375.4 |
| 75° | 165.6 | 197.2 | 254.0 | 291.8 | 307.6 |
| 77.5° | 129.4 | 160.9 | 209.8 | 235.0 | 252.4 |
| 80° | 96.2 | 123.0 | 157.8 | 176.7 | 183.0 |
| 82.5° | 66.3 | 88.3 | 110.4 | 115.2 | 118.3 |
| 85° | 41.0 | 52.1 | 59.9 | 58.4 | 58.4 |
| 87.5° | 18.9 | 20.5 | 17.4 | 12.6 | 7.9 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)