

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: P275714

Luminaire Tested: **14CZ2-39-S-UNV-L92765-W2A1-U-6500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P275714
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: 14CZ2-39-S-UNV-L92765-W2A1-U-6500K
Description: CRUZE 2.0 1x4 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS
Light Source: (168) 90 CRI LEDS TUNED TO 6500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3689.0 lumens
Efficiency: N/A
Efficacy: 113.7 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

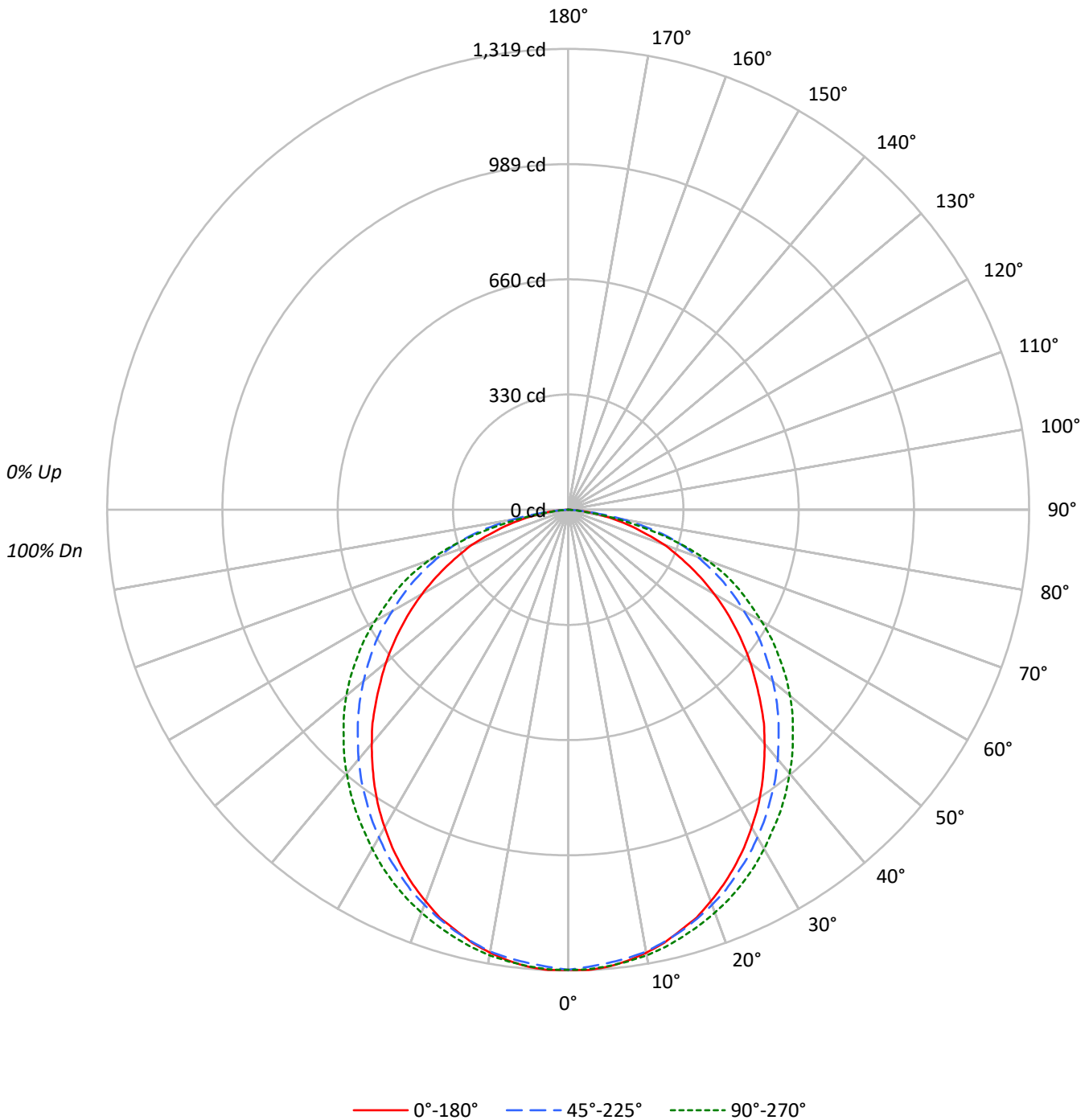
Input Watts (W): 32.457
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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 | 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° | 3544 | 3544 | 3544 |
| 5° | 3548 | 3518 | 3542 |
| 10° | 3518 | 3509 | 3539 |
| 15° | 3470 | 3480 | 3526 |
| 20° | 3415 | 3446 | 3515 |
| 25° | 3345 | 3405 | 3503 |
| 30° | 3262 | 3365 | 3484 |
| 35° | 3172 | 3317 | 3473 |
| 40° | 3071 | 3277 | 3463 |
| 45° | 2958 | 3237 | 3459 |
| 50° | 2848 | 3201 | 3469 |
| 55° | 2729 | 3175 | 3458 |
| 60° | 2599 | 3130 | 3435 |
| 65° | 2446 | 3121 | 3436 |
| 70° | 2302 | 3094 | 3338 |
| 75° | 1996 | 3023 | 2853 |
| 80° | 1616 | 2438 | 1898 |
| 85° | 1074 | 846 | 565 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 124.4 | 3.4 |
| 10°-20° | 353.9 | 9.6 |
| 20°-30° | 530.8 | 14.4 |
| 30°-40° | 633.2 | 17.2 |
| 40°-50° | 654.6 | 17.7 |
| 50°-60° | 597.6 | 16.2 |
| 60°-70° | 470.3 | 12.7 |
| 70°-80° | 273.8 | 7.4 |
| 80°-90° | 50.5 | 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° | 1009.0 | 27.4 |
| 0°-40° | 1642.2 | 44.5 |
| 0°-60° | 2894.4 | 78.5 |
| 0°-90° | 3689.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 3689.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1317 | 1317 | 1317 | 1317 | 1317 | |
| 5° | 1313 | 1310 | 1302 | 1313 | 1311 | 125 |
| 15° | 1246 | 1247 | 1249 | 1266 | 1266 | 351 |
| 25° | 1127 | 1132 | 1147 | 1174 | 1180 | 519 |
| 35° | 966 | 978 | 1010 | 1048 | 1057 | 604 |
| 45° | 777 | 803 | 850 | 898 | 909 | 600 |
| 55° | 582 | 613 | 677 | 726 | 737 | 520 |
| 65° | 384 | 424 | 490 | 529 | 540 | 381 |
| 75° | 192 | 238 | 291 | 285 | 274 | 204 |
| 85° | 35 | 49 | 27 | 22 | 18 | 45 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1316.9 | 1316.9 | 1316.9 | 1316.9 | 1316.9 |
| 2.5° | 1318.7 | 1315.1 | 1309.6 | 1318.7 | 1316.9 |
| 5° | 1313.3 | 1309.6 | 1302.3 | 1313.3 | 1311.4 |
| 7.5° | 1302.3 | 1298.6 | 1295.0 | 1305.9 | 1304.1 |
| 10° | 1287.6 | 1285.8 | 1284.0 | 1296.8 | 1295.0 |
| 12.5° | 1269.4 | 1269.4 | 1267.5 | 1282.2 | 1282.2 |
| 15° | 1245.6 | 1247.4 | 1249.2 | 1265.7 | 1265.7 |
| 17.5° | 1223.6 | 1221.8 | 1227.3 | 1245.6 | 1247.4 |
| 20° | 1192.5 | 1196.2 | 1203.5 | 1225.5 | 1227.3 |
| 22.5° | 1161.4 | 1165.1 | 1177.9 | 1199.9 | 1205.3 |
| 25° | 1126.7 | 1132.2 | 1146.8 | 1174.2 | 1179.7 |
| 27.5° | 1090.1 | 1097.4 | 1117.5 | 1146.8 | 1152.3 |
| 30° | 1049.9 | 1060.8 | 1082.8 | 1115.7 | 1121.2 |
| 32.5° | 1009.6 | 1020.6 | 1048.0 | 1081.0 | 1088.3 |
| 35° | 965.7 | 978.5 | 1009.6 | 1048.0 | 1057.2 |
| 37.5° | 920.0 | 936.5 | 973.1 | 1011.5 | 1022.4 |
| 40° | 874.3 | 892.6 | 932.8 | 973.1 | 985.9 |
| 42.5° | 828.6 | 846.8 | 890.7 | 936.5 | 949.3 |
| 45° | 777.3 | 803.0 | 850.5 | 898.1 | 909.0 |
| 47.5° | 728.0 | 755.4 | 808.4 | 856.0 | 870.6 |
| 50° | 680.4 | 707.8 | 764.5 | 813.9 | 828.6 |
| 52.5° | 631.0 | 660.3 | 720.6 | 771.9 | 784.7 |
| 55° | 581.6 | 612.7 | 676.7 | 726.1 | 737.1 |
| 57.5° | 532.3 | 565.2 | 631.0 | 678.6 | 691.4 |
| 60° | 482.9 | 517.6 | 581.6 | 629.2 | 638.3 |
| 62.5° | 433.5 | 470.1 | 535.9 | 578.0 | 587.1 |
| 65° | 384.1 | 424.3 | 490.2 | 528.6 | 539.6 |
| 67.5° | 336.5 | 376.8 | 440.8 | 477.4 | 486.5 |
| 70° | 292.6 | 329.2 | 393.2 | 420.7 | 424.3 |
| 72.5° | 237.8 | 283.5 | 345.7 | 360.3 | 351.2 |
| 75° | 192.0 | 237.8 | 290.8 | 285.3 | 274.4 |
| 77.5° | 146.3 | 192.0 | 226.8 | 208.5 | 193.9 |
| 80° | 104.3 | 150.0 | 157.3 | 129.9 | 122.5 |
| 82.5° | 67.7 | 104.3 | 87.8 | 67.7 | 54.9 |
| 85° | 34.8 | 49.4 | 27.4 | 21.9 | 18.3 |
| 87.5° | 11.0 | 7.3 | 3.7 | 3.7 | 1.8 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)