

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: P275408

Luminaire Tested: **14CZ2-39-UNV-L83050-W2A1-U-3000K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P275408
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-49)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 14CZ2-39-UNV-L83050-W2A1-U-3000K
Description: CRUZE 2.0 1x4 TUNABLE WHITE LED TROFFER
WITH RIBBED LENS
Light Source: (168) 80 CRI LEDS TUNED TO 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3635.0 lumens
Efficiency: N/A
Efficacy: 117.7 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

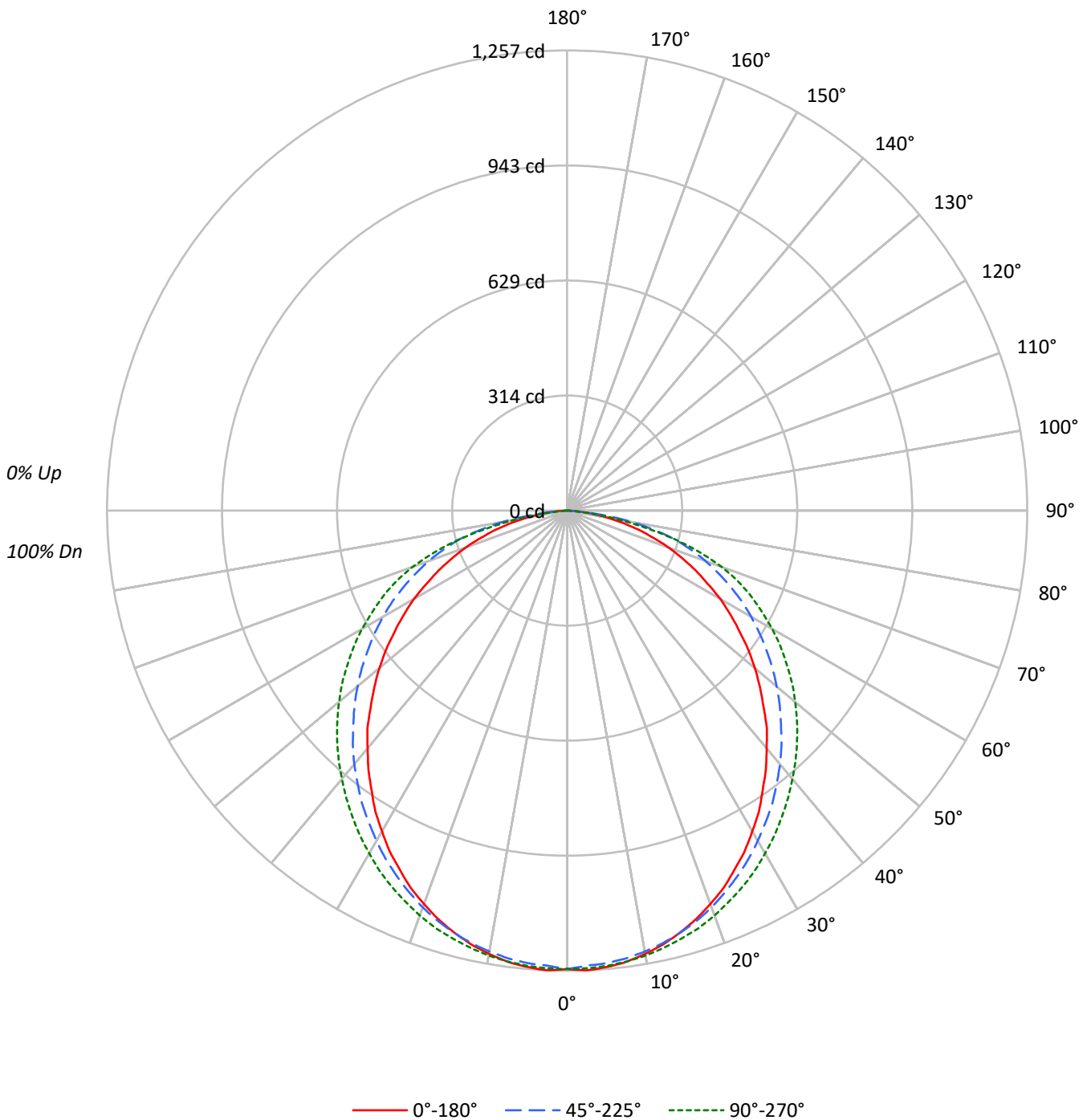
Input Watts (W): 30.876
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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 | 99 | 95 | 106 | 101 | 97 | 94 | 97 | 94 | 91 | 93 | 90 | 88 | 90 | 87 | 85 | 83 |
| 2 | 98 | 90 | 83 | 77 | 96 | 88 | 82 | 76 | 84 | 79 | 74 | 81 | 77 | 73 | 78 | 74 | 71 | 69 |
| 3 | 89 | 79 | 70 | 64 | 87 | 77 | 69 | 63 | 74 | 67 | 62 | 71 | 66 | 61 | 69 | 64 | 60 | 58 |
| 4 | 82 | 70 | 61 | 54 | 79 | 68 | 60 | 53 | 66 | 58 | 53 | 63 | 57 | 52 | 61 | 56 | 51 | 49 |
| 5 | 75 | 62 | 53 | 46 | 73 | 61 | 52 | 46 | 59 | 51 | 45 | 57 | 50 | 45 | 55 | 49 | 44 | 42 |
| 6 | 69 | 56 | 47 | 40 | 67 | 55 | 46 | 40 | 53 | 45 | 40 | 51 | 44 | 39 | 50 | 44 | 39 | 37 |
| 7 | 64 | 51 | 42 | 35 | 63 | 50 | 41 | 35 | 48 | 41 | 35 | 47 | 40 | 35 | 45 | 39 | 34 | 32 |
| 8 | 60 | 46 | 37 | 32 | 58 | 45 | 37 | 31 | 44 | 37 | 31 | 43 | 36 | 31 | 42 | 35 | 31 | 29 |
| 9 | 56 | 42 | 34 | 28 | 54 | 42 | 34 | 28 | 41 | 33 | 28 | 39 | 33 | 28 | 38 | 32 | 28 | 26 |
| 10 | 52 | 39 | 31 | 26 | 51 | 39 | 31 | 26 | 37 | 30 | 26 | 37 | 30 | 25 | 36 | 30 | 25 | 24 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 3370 | 3370 | 3370 |
| 5° | 3381 | 3352 | 3372 |
| 10° | 3360 | 3342 | 3373 |
| 15° | 3324 | 3326 | 3371 |
| 20° | 3275 | 3303 | 3370 |
| 25° | 3213 | 3271 | 3367 |
| 30° | 3143 | 3236 | 3360 |
| 35° | 3059 | 3209 | 3358 |
| 40° | 2978 | 3178 | 3362 |
| 45° | 2887 | 3143 | 3381 |
| 50° | 2803 | 3129 | 3404 |
| 55° | 2696 | 3118 | 3434 |
| 60° | 2600 | 3123 | 3481 |
| 65° | 2467 | 3133 | 3535 |
| 70° | 2315 | 3157 | 3533 |
| 75° | 2098 | 3186 | 3194 |
| 80° | 1720 | 2751 | 2273 |
| 85° | 1275 | 1300 | 525 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 118.5 | 3.3 |
| 10°-20° | 338.5 | 9.3 |
| 20°-30° | 509.9 | 14.0 |
| 30°-40° | 611.9 | 16.8 |
| 40°-50° | 637.8 | 17.5 |
| 50°-60° | 590.4 | 16.2 |
| 60°-70° | 477.0 | 13.1 |
| 70°-80° | 290.9 | 8.0 |
| 80°-90° | 60.1 | 1.7 |
| 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° | 966.9 | 26.6 |
| 0°-40° | 1578.8 | 43.4 |
| 0°-60° | 2807.0 | 77.2 |
| 0°-90° | 3635.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 3635.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1252 | 1252 | 1252 | 1252 | 1252 | |
| 5° | 1252 | 1248 | 1241 | 1250 | 1248 | 119 |
| 15° | 1193 | 1194 | 1194 | 1210 | 1210 | 336 |
| 25° | 1082 | 1088 | 1102 | 1129 | 1134 | 499 |
| 35° | 931 | 946 | 977 | 1012 | 1022 | 583 |
| 45° | 759 | 781 | 826 | 872 | 888 | 586 |
| 55° | 575 | 605 | 665 | 716 | 732 | 515 |
| 65° | 387 | 426 | 492 | 541 | 555 | 383 |
| 75° | 202 | 246 | 306 | 311 | 307 | 212 |
| 85° | 41 | 62 | 42 | 24 | 17 | 51 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1252.3 | 1252.3 | 1252.3 | 1252.3 | 1252.3 |
| 2.5° | 1257.1 | 1253.1 | 1244.2 | 1253.1 | 1251.5 |
| 5° | 1251.5 | 1248.2 | 1240.9 | 1249.8 | 1248.2 |
| 7.5° | 1243.4 | 1240.1 | 1233.6 | 1244.2 | 1242.5 |
| 10° | 1229.6 | 1228.0 | 1223.1 | 1235.2 | 1234.4 |
| 12.5° | 1213.4 | 1212.6 | 1210.1 | 1223.9 | 1223.1 |
| 15° | 1193.1 | 1193.9 | 1193.9 | 1210.1 | 1210.1 |
| 17.5° | 1170.4 | 1172.0 | 1175.3 | 1193.1 | 1195.5 |
| 20° | 1143.7 | 1146.9 | 1153.4 | 1173.6 | 1176.9 |
| 22.5° | 1116.1 | 1118.5 | 1128.3 | 1152.6 | 1155.8 |
| 25° | 1082.1 | 1088.5 | 1101.5 | 1129.1 | 1133.9 |
| 27.5° | 1049.6 | 1055.3 | 1073.1 | 1101.5 | 1109.6 |
| 30° | 1011.5 | 1020.5 | 1041.5 | 1072.3 | 1081.2 |
| 32.5° | 975.1 | 984.8 | 1009.1 | 1044.8 | 1052.9 |
| 35° | 931.3 | 945.9 | 976.7 | 1012.4 | 1022.1 |
| 37.5° | 891.6 | 905.4 | 940.2 | 979.1 | 990.5 |
| 40° | 847.8 | 864.8 | 904.6 | 945.9 | 957.2 |
| 42.5° | 807.3 | 823.5 | 866.5 | 908.6 | 924.0 |
| 45° | 758.7 | 781.4 | 825.9 | 872.1 | 888.3 |
| 47.5° | 714.1 | 736.8 | 787.8 | 837.3 | 851.9 |
| 50° | 669.5 | 693.8 | 747.3 | 798.4 | 813.0 |
| 52.5° | 623.3 | 649.2 | 706.8 | 757.8 | 774.9 |
| 55° | 574.7 | 604.7 | 664.6 | 716.5 | 731.9 |
| 57.5° | 528.5 | 559.3 | 623.3 | 676.0 | 691.4 |
| 60° | 483.1 | 514.7 | 580.3 | 630.6 | 646.8 |
| 62.5° | 432.8 | 470.1 | 538.2 | 587.6 | 599.8 |
| 65° | 387.4 | 425.5 | 492.0 | 541.4 | 555.2 |
| 67.5° | 339.6 | 380.9 | 447.4 | 492.8 | 505.8 |
| 70° | 294.2 | 337.2 | 401.2 | 443.4 | 449.0 |
| 72.5° | 245.6 | 289.4 | 354.2 | 380.9 | 380.9 |
| 75° | 201.8 | 246.4 | 306.4 | 311.2 | 307.2 |
| 77.5° | 154.0 | 203.4 | 242.3 | 232.6 | 222.9 |
| 80° | 111.0 | 159.7 | 177.5 | 159.7 | 146.7 |
| 82.5° | 74.6 | 115.9 | 107.0 | 85.1 | 75.4 |
| 85° | 41.3 | 61.6 | 42.1 | 23.5 | 17.0 |
| 87.5° | 15.4 | 13.8 | 4.1 | 4.1 | 4.1 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)