

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: P275649

Luminaire Tested: **14CZ2-35-S-UNV-L82765-W2A1-U-5500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P275649
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: 14CZ2-35-S-UNV-L82765-W2A1-U-5500K
Description: CRUZE 2.0 1x4 TUNABLE WHITE LED TROFFER
WITH SMOOTH LENS
Light Source: (168) 80 CRI LEDS TUNED TO 5500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3663.0 lumens
Efficiency: N/A
Efficacy: 130.0 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

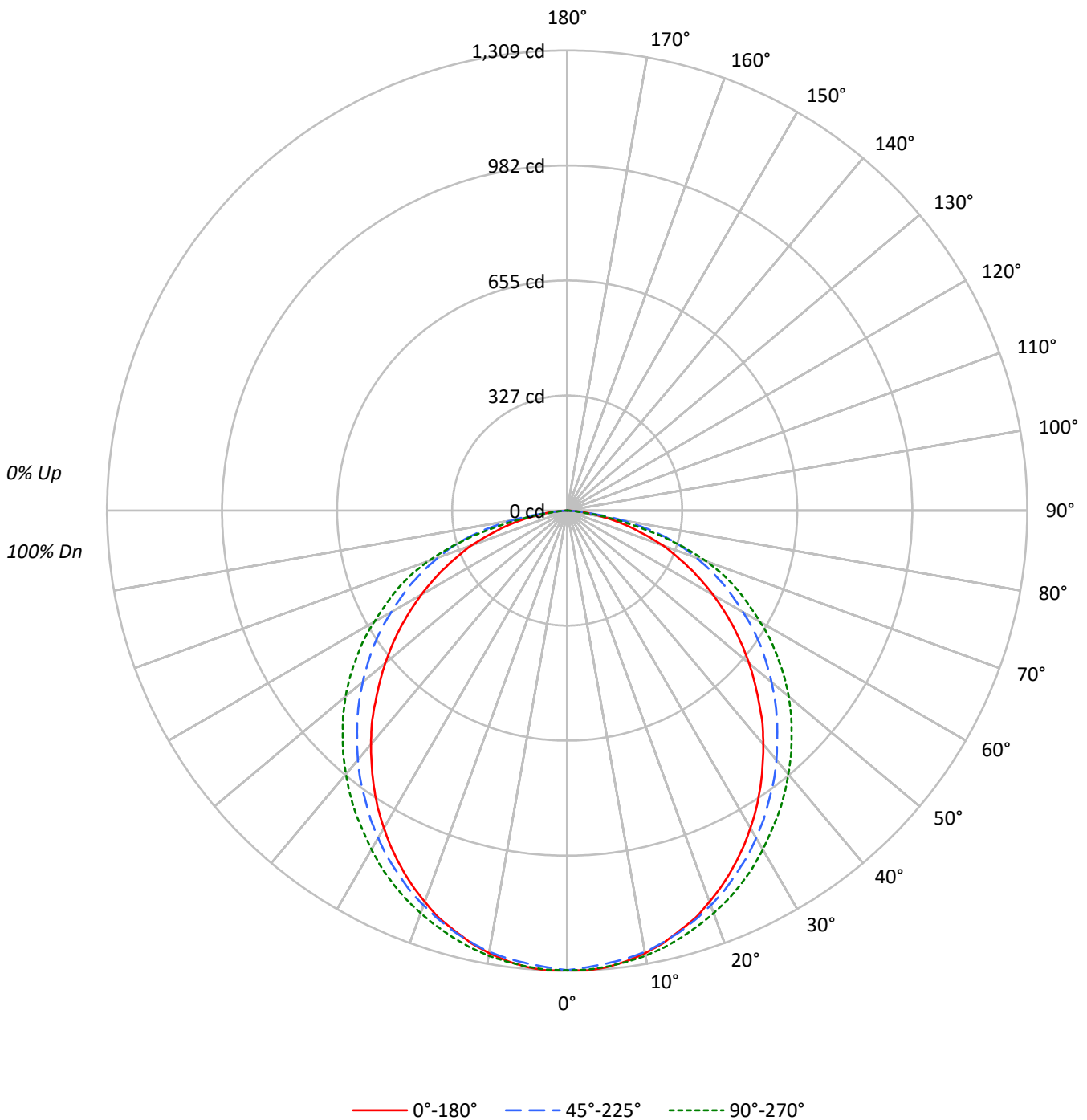
Input Watts (W): 28.179
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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° | 3519 | 3519 | 3519 |
| 5° | 3522 | 3493 | 3518 |
| 10° | 3494 | 3484 | 3513 |
| 15° | 3446 | 3456 | 3501 |
| 20° | 3391 | 3422 | 3490 |
| 25° | 3322 | 3381 | 3478 |
| 30° | 3239 | 3341 | 3459 |
| 35° | 3150 | 3293 | 3448 |
| 40° | 3049 | 3254 | 3439 |
| 45° | 2938 | 3214 | 3435 |
| 50° | 2828 | 3178 | 3444 |
| 55° | 2709 | 3153 | 3434 |
| 60° | 2581 | 3108 | 3411 |
| 65° | 2429 | 3099 | 3412 |
| 70° | 2286 | 3072 | 3315 |
| 75° | 1983 | 3003 | 2832 |
| 80° | 1604 | 2421 | 1886 |
| 85° | 1065 | 840 | 562 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 123.5 | 3.4 |
| 10°-20° | 351.4 | 9.6 |
| 20°-30° | 527.1 | 14.4 |
| 30°-40° | 628.7 | 17.2 |
| 40°-50° | 650.0 | 17.7 |
| 50°-60° | 593.4 | 16.2 |
| 60°-70° | 467.0 | 12.7 |
| 70°-80° | 271.8 | 7.4 |
| 80°-90° | 50.1 | 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° | 1001.9 | 27.4 |
| 0°-40° | 1630.6 | 44.5 |
| 0°-60° | 2874.1 | 78.5 |
| 0°-90° | 3663.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 3663.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1308 | 1308 | 1308 | 1308 | 1308 | |
| 5° | 1304 | 1300 | 1293 | 1304 | 1302 | 124 |
| 15° | 1237 | 1239 | 1240 | 1257 | 1257 | 349 |
| 25° | 1119 | 1124 | 1139 | 1166 | 1171 | 515 |
| 35° | 959 | 972 | 1002 | 1041 | 1050 | 599 |
| 45° | 772 | 797 | 844 | 892 | 903 | 596 |
| 55° | 578 | 608 | 672 | 721 | 732 | 516 |
| 65° | 381 | 421 | 487 | 525 | 536 | 379 |
| 75° | 191 | 236 | 289 | 283 | 272 | 203 |
| 85° | 34 | 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° | 1307.6 | 1307.6 | 1307.6 | 1307.6 | 1307.6 |
| 2.5° | 1309.4 | 1305.8 | 1300.4 | 1309.4 | 1307.6 |
| 5° | 1304.0 | 1300.4 | 1293.1 | 1304.0 | 1302.2 |
| 7.5° | 1293.1 | 1289.5 | 1285.8 | 1296.7 | 1294.9 |
| 10° | 1278.6 | 1276.8 | 1274.9 | 1287.7 | 1285.8 |
| 12.5° | 1260.4 | 1260.4 | 1258.6 | 1273.1 | 1273.1 |
| 15° | 1236.8 | 1238.6 | 1240.4 | 1256.8 | 1256.8 |
| 17.5° | 1215.0 | 1213.2 | 1218.6 | 1236.8 | 1238.6 |
| 20° | 1184.1 | 1187.8 | 1195.0 | 1216.8 | 1218.6 |
| 22.5° | 1153.3 | 1156.9 | 1169.6 | 1191.4 | 1196.8 |
| 25° | 1118.8 | 1124.2 | 1138.7 | 1166.0 | 1171.4 |
| 27.5° | 1082.4 | 1089.7 | 1109.7 | 1138.7 | 1144.2 |
| 30° | 1042.5 | 1053.4 | 1075.2 | 1107.9 | 1113.3 |
| 32.5° | 1002.5 | 1013.4 | 1040.7 | 1073.3 | 1080.6 |
| 35° | 958.9 | 971.6 | 1002.5 | 1040.7 | 1049.7 |
| 37.5° | 913.5 | 929.9 | 966.2 | 1004.3 | 1015.2 |
| 40° | 868.1 | 886.3 | 926.2 | 966.2 | 978.9 |
| 42.5° | 822.7 | 840.9 | 884.5 | 929.9 | 942.6 |
| 45° | 771.9 | 797.3 | 844.5 | 891.7 | 902.6 |
| 47.5° | 722.8 | 750.1 | 802.7 | 850.0 | 864.5 |
| 50° | 675.6 | 702.9 | 759.2 | 808.2 | 822.7 |
| 52.5° | 626.6 | 655.6 | 715.6 | 766.4 | 779.1 |
| 55° | 577.5 | 608.4 | 672.0 | 721.0 | 731.9 |
| 57.5° | 528.5 | 561.2 | 626.6 | 673.8 | 686.5 |
| 60° | 479.5 | 514.0 | 577.5 | 624.8 | 633.8 |
| 62.5° | 430.4 | 466.8 | 532.1 | 573.9 | 583.0 |
| 65° | 381.4 | 421.3 | 486.7 | 524.9 | 535.8 |
| 67.5° | 334.2 | 374.1 | 437.7 | 474.0 | 483.1 |
| 70° | 290.6 | 326.9 | 390.5 | 417.7 | 421.3 |
| 72.5° | 236.1 | 281.5 | 343.3 | 357.8 | 348.7 |
| 75° | 190.7 | 236.1 | 288.8 | 283.3 | 272.4 |
| 77.5° | 145.3 | 190.7 | 225.2 | 207.0 | 192.5 |
| 80° | 103.5 | 148.9 | 156.2 | 128.9 | 121.7 |
| 82.5° | 67.2 | 103.5 | 87.2 | 67.2 | 54.5 |
| 85° | 34.5 | 49.0 | 27.2 | 21.8 | 18.2 |
| 87.5° | 10.9 | 7.3 | 3.6 | 3.6 | 1.8 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)