

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: P275669

Luminaire Tested: **14CZ2-44-S-UNV-L82765-W2A1-U-6500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P275669
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: 14CZ2-44-S-UNV-L82765-W2A1-U-6500K
Description: CRUZE 2.0 1x4 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS
Light Source: (168) 80 CRI LEDS TUNED TO 6500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4541.0 lumens
Efficiency: N/A
Efficacy: 122.1 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

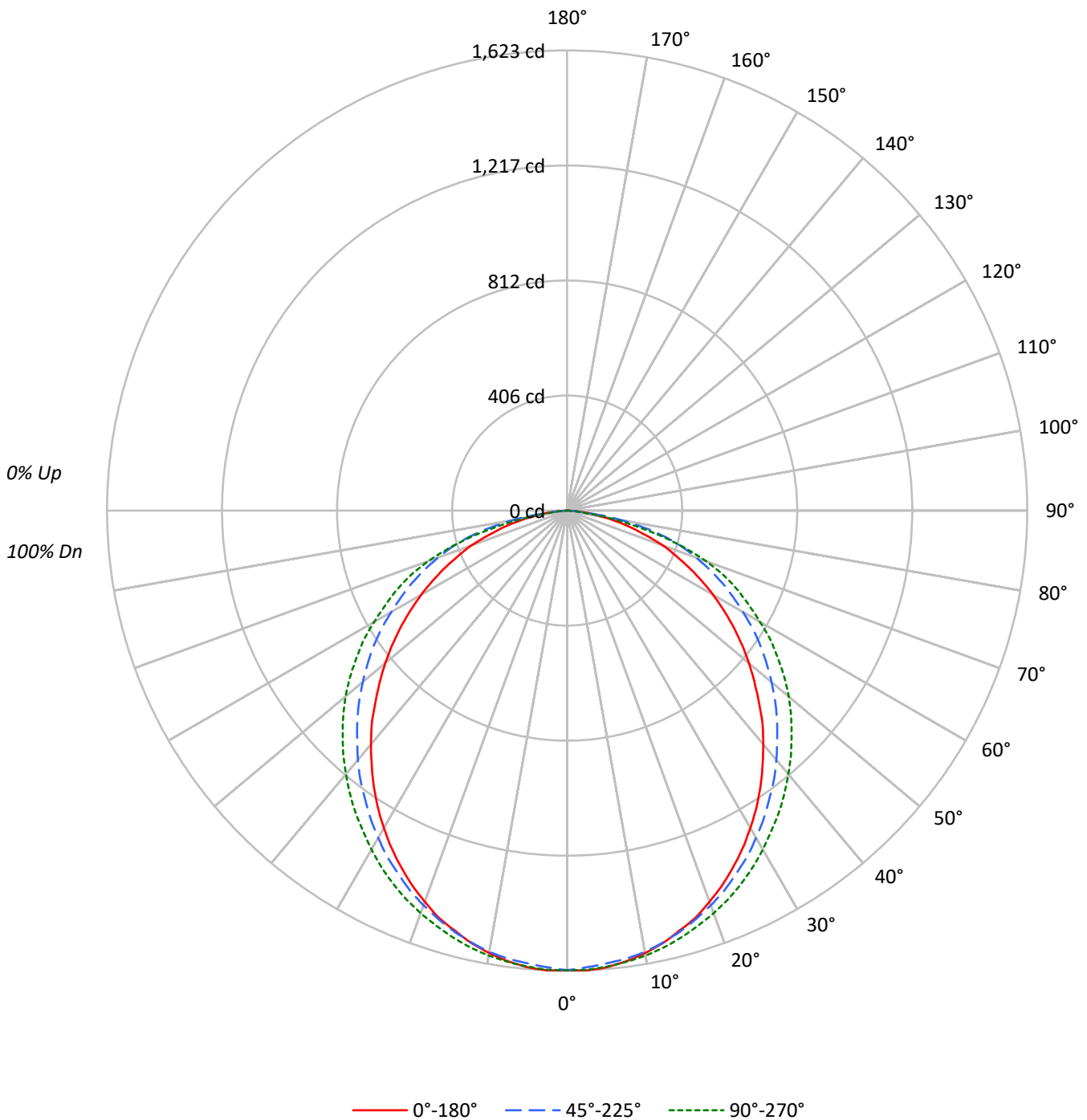
Input Watts (W): 37.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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 | 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 | | | | | 100 | | | |
| 1 | 109 | 104 | 100 | 96 | 106 | 102 | 98 | 94 | 97 | 94 | 91 | 94 | 91 | 89 | 90 | 88 | 86 | 84 | | | | | 84 | | | |
| 2 | 99 | 90 | 84 | 78 | 96 | 89 | 82 | 77 | 85 | 80 | 75 | 82 | 77 | 73 | 79 | 75 | 72 | 70 | | | | | 70 | | | |
| 3 | 90 | 79 | 71 | 65 | 87 | 78 | 70 | 64 | 75 | 68 | 63 | 72 | 66 | 62 | 69 | 65 | 61 | 58 | | | | | 58 | | | |
| 4 | 82 | 70 | 61 | 55 | 80 | 69 | 61 | 54 | 66 | 59 | 53 | 64 | 58 | 53 | 62 | 56 | 52 | 50 | | | | | 50 | | | |
| 5 | 76 | 63 | 54 | 47 | 74 | 62 | 53 | 47 | 59 | 52 | 46 | 57 | 51 | 46 | 56 | 50 | 45 | 43 | | | | | 43 | | | |
| 6 | 70 | 56 | 47 | 41 | 68 | 55 | 47 | 41 | 54 | 46 | 40 | 52 | 45 | 40 | 50 | 44 | 40 | 38 | | | | | 38 | | | |
| 7 | 65 | 51 | 42 | 36 | 63 | 50 | 42 | 36 | 49 | 41 | 36 | 47 | 41 | 35 | 46 | 40 | 35 | 33 | | | | | 33 | | | |
| 8 | 60 | 47 | 38 | 32 | 59 | 46 | 38 | 32 | 45 | 37 | 32 | 43 | 37 | 32 | 42 | 36 | 32 | 30 | | | | | 30 | | | |
| 9 | 56 | 43 | 35 | 29 | 55 | 42 | 34 | 29 | 41 | 34 | 29 | 40 | 33 | 29 | 39 | 33 | 28 | 27 | | | | | 27 | | | |
| 10 | 53 | 40 | 32 | 26 | 52 | 39 | 31 | 26 | 38 | 31 | 26 | 37 | 31 | 26 | 36 | 30 | 26 | 24 | | | | | 24 | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 4362 | 4362 | 4362 |
| 5° | 4367 | 4330 | 4361 |
| 10° | 4331 | 4319 | 4356 |
| 15° | 4272 | 4284 | 4340 |
| 20° | 4204 | 4243 | 4326 |
| 25° | 4118 | 4192 | 4312 |
| 30° | 4016 | 4142 | 4289 |
| 35° | 3905 | 4083 | 4275 |
| 40° | 3781 | 4034 | 4263 |
| 45° | 3642 | 3984 | 4258 |
| 50° | 3506 | 3940 | 4270 |
| 55° | 3359 | 3908 | 4257 |
| 60° | 3199 | 3853 | 4229 |
| 65° | 3011 | 3842 | 4229 |
| 70° | 2834 | 3809 | 4109 |
| 75° | 2458 | 3722 | 3511 |
| 80° | 1988 | 3000 | 2337 |
| 85° | 1321 | 1044 | 695 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 153.1 | 3.4 |
| 10°-20° | 435.6 | 9.6 |
| 20°-30° | 653.4 | 14.4 |
| 30°-40° | 779.4 | 17.2 |
| 40°-50° | 805.8 | 17.7 |
| 50°-60° | 735.7 | 16.2 |
| 60°-70° | 578.9 | 12.7 |
| 70°-80° | 337.0 | 7.4 |
| 80°-90° | 62.1 | 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° | 1242.1 | 27.4 |
| 0°-40° | 2021.5 | 44.5 |
| 0°-60° | 3563.0 | 78.5 |
| 0°-90° | 4541.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 4541.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1621 | 1621 | 1621 | 1621 | 1621 | |
| 5° | 1617 | 1612 | 1603 | 1617 | 1614 | 153 |
| 15° | 1533 | 1536 | 1538 | 1558 | 1558 | 433 |
| 25° | 1387 | 1394 | 1412 | 1445 | 1452 | 639 |
| 35° | 1189 | 1204 | 1243 | 1290 | 1301 | 743 |
| 45° | 957 | 988 | 1047 | 1106 | 1119 | 739 |
| 55° | 716 | 754 | 833 | 894 | 907 | 640 |
| 65° | 473 | 522 | 603 | 651 | 664 | 470 |
| 75° | 236 | 293 | 358 | 351 | 338 | 251 |
| 85° | 43 | 61 | 34 | 27 | 22 | 55 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P275669

CATALOG NUMBER: 14CZ2-44-S-UNV-L82765-W2A1-U-6500K

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1621.1 | 1621.1 | 1621.1 | 1621.1 | 1621.1 |
| 2.5° | 1623.3 | 1618.8 | 1612.1 | 1623.3 | 1621.1 |
| 5° | 1616.6 | 1612.1 | 1603.0 | 1616.6 | 1614.3 |
| 7.5° | 1603.0 | 1598.5 | 1594.0 | 1607.6 | 1605.3 |
| 10° | 1585.0 | 1582.8 | 1580.5 | 1596.3 | 1594.0 |
| 12.5° | 1562.5 | 1562.5 | 1560.3 | 1578.3 | 1578.3 |
| 15° | 1533.3 | 1535.5 | 1537.8 | 1558.0 | 1558.0 |
| 17.5° | 1506.2 | 1504.0 | 1510.7 | 1533.3 | 1535.5 |
| 20° | 1468.0 | 1472.5 | 1481.5 | 1508.5 | 1510.7 |
| 22.5° | 1429.7 | 1434.2 | 1449.9 | 1477.0 | 1483.7 |
| 25° | 1386.9 | 1393.7 | 1411.7 | 1445.4 | 1452.2 |
| 27.5° | 1341.9 | 1350.9 | 1375.7 | 1411.7 | 1418.4 |
| 30° | 1292.3 | 1305.9 | 1332.9 | 1373.4 | 1380.2 |
| 32.5° | 1242.8 | 1256.3 | 1290.1 | 1330.6 | 1339.6 |
| 35° | 1188.8 | 1204.5 | 1242.8 | 1290.1 | 1301.4 |
| 37.5° | 1132.5 | 1152.8 | 1197.8 | 1245.1 | 1258.6 |
| 40° | 1076.2 | 1098.7 | 1148.3 | 1197.8 | 1213.5 |
| 42.5° | 1019.9 | 1042.4 | 1096.5 | 1152.8 | 1168.5 |
| 45° | 956.9 | 988.4 | 1046.9 | 1105.5 | 1119.0 |
| 47.5° | 896.1 | 929.9 | 995.2 | 1053.7 | 1071.7 |
| 50° | 837.5 | 871.3 | 941.1 | 1001.9 | 1019.9 |
| 52.5° | 776.8 | 812.8 | 887.1 | 950.1 | 965.9 |
| 55° | 716.0 | 754.2 | 833.0 | 893.8 | 907.3 |
| 57.5° | 655.2 | 695.7 | 776.8 | 835.3 | 851.1 |
| 60° | 594.4 | 637.2 | 716.0 | 774.5 | 785.8 |
| 62.5° | 533.6 | 578.6 | 659.7 | 711.5 | 722.7 |
| 65° | 472.8 | 522.3 | 603.4 | 650.7 | 664.2 |
| 67.5° | 414.3 | 463.8 | 542.6 | 587.6 | 598.9 |
| 70° | 360.2 | 405.3 | 484.1 | 517.8 | 522.3 |
| 72.5° | 292.7 | 349.0 | 425.5 | 443.5 | 432.3 |
| 75° | 236.4 | 292.7 | 358.0 | 351.2 | 337.7 |
| 77.5° | 180.1 | 236.4 | 279.2 | 256.7 | 238.7 |
| 80° | 128.3 | 184.6 | 193.6 | 159.9 | 150.8 |
| 82.5° | 83.3 | 128.3 | 108.1 | 83.3 | 67.5 |
| 85° | 42.8 | 60.8 | 33.8 | 27.0 | 22.5 |
| 87.5° | 13.5 | 9.0 | 4.5 | 4.5 | 2.3 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)