

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: P275841

Luminaire Tested: **14CZ2-20-RDP-UNV-L92765-W2A1-U-4000K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P275841
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-43)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 14CZ2-20-RDP-UNV-L92765-W2A1-U-4000K
Description: CRUZE 2.0 1x4 TUNABLE WHITE LED TROFFER
WITH RDP LENS
Light Source: (168) 90 CRI LEDS TUNED TO 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1178.0 lumens
Efficiency: N/A
Efficacy: 75.8 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.29 / 1.4
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

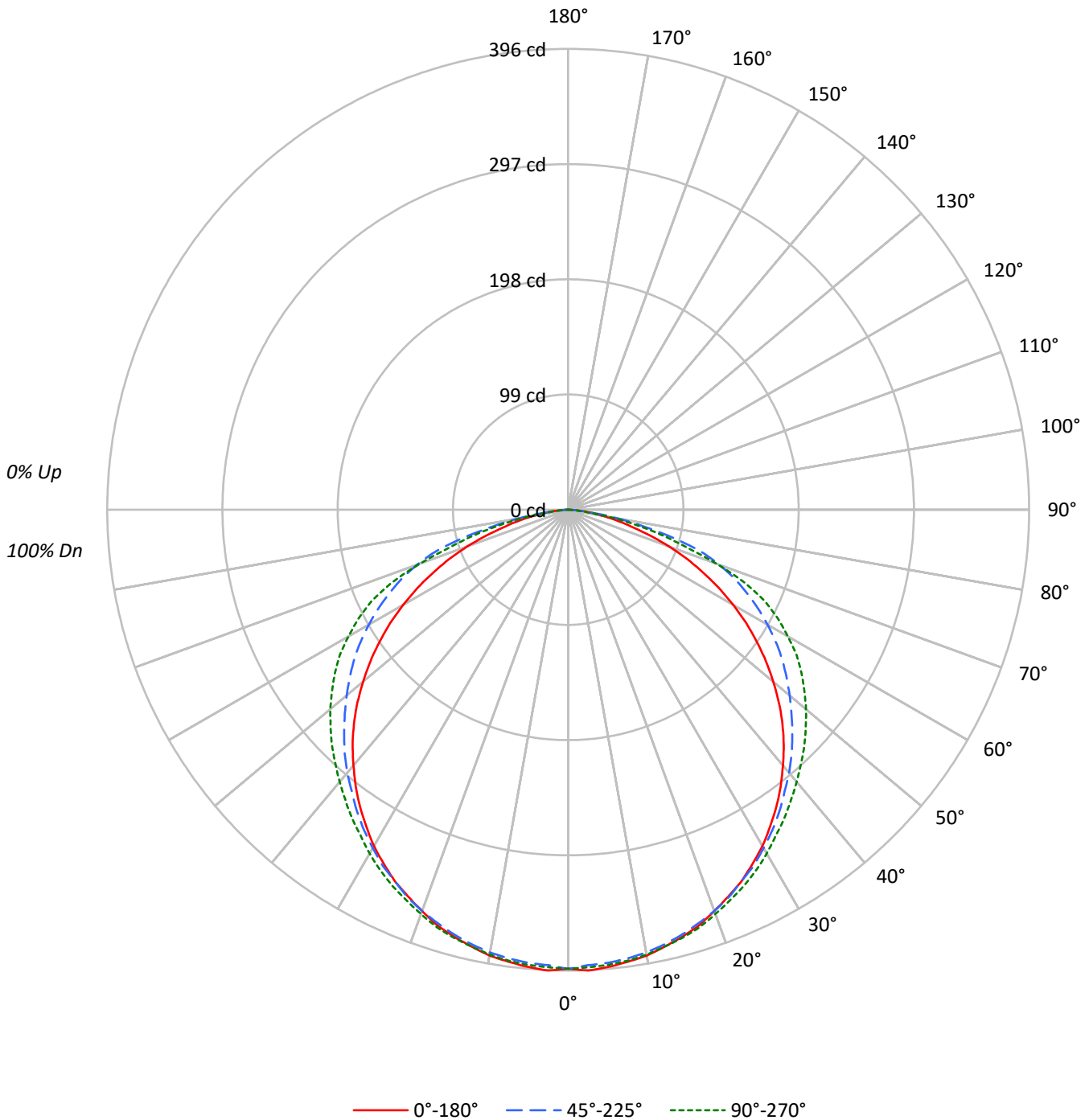
Input Watts (W): 15.531
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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 | 93 | 91 | 88 | 90 | 88 | 86 | 84 |
| 2 | 99 | 90 | 83 | 77 | 96 | 88 | 82 | 76 | 85 | 79 | 75 | 81 | 77 | 73 | 78 | 75 | 71 | 69 |
| 3 | 90 | 79 | 71 | 64 | 87 | 77 | 70 | 63 | 74 | 68 | 62 | 71 | 66 | 61 | 69 | 64 | 60 | 58 |
| 4 | 82 | 70 | 61 | 54 | 80 | 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 | 50 | 42 | 35 | 62 | 50 | 41 | 35 | 48 | 40 | 35 | 47 | 40 | 35 | 45 | 39 | 34 | 32 |
| 8 | 60 | 46 | 37 | 31 | 58 | 45 | 37 | 31 | 44 | 36 | 31 | 43 | 36 | 31 | 41 | 35 | 31 | 29 |
| 9 | 56 | 42 | 34 | 28 | 54 | 42 | 34 | 28 | 40 | 33 | 28 | 39 | 33 | 28 | 38 | 32 | 28 | 26 |
| 10 | 52 | 39 | 31 | 25 | 51 | 38 | 31 | 25 | 37 | 30 | 25 | 36 | 30 | 25 | 35 | 29 | 25 | 23 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 1062 | 1062 | 1062 |
| 5° | 1066 | 1056 | 1061 |
| 10° | 1063 | 1056 | 1060 |
| 15° | 1058 | 1053 | 1061 |
| 20° | 1051 | 1051 | 1059 |
| 25° | 1046 | 1046 | 1059 |
| 30° | 1037 | 1043 | 1060 |
| 35° | 1024 | 1039 | 1063 |
| 40° | 1008 | 1037 | 1072 |
| 45° | 991 | 1036 | 1092 |
| 50° | 962 | 1039 | 1117 |
| 55° | 928 | 1053 | 1148 |
| 60° | 881 | 1064 | 1173 |
| 65° | 814 | 1077 | 1189 |
| 70° | 724 | 1086 | 1064 |
| 75° | 583 | 975 | 852 |
| 80° | 456 | 683 | 556 |
| 85° | 312 | 198 | 142 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 37.3 | 3.2 |
| 10°-20° | 107.1 | 9.1 |
| 20°-30° | 163.1 | 13.8 |
| 30°-40° | 198.7 | 16.9 |
| 40°-50° | 210.8 | 17.9 |
| 50°-60° | 199.0 | 16.9 |
| 60°-70° | 160.6 | 13.6 |
| 70°-80° | 87.1 | 7.4 |
| 80°-90° | 14.1 | 1.2 |
| 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° | 307.6 | 26.1 |
| 0°-40° | 506.3 | 43.0 |
| 0°-60° | 916.1 | 77.8 |
| 0°-90° | 1178.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1178.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 394 | 394 | 394 | 394 | 394 | |
| 5° | 394 | 394 | 391 | 394 | 393 | 37 |
| 15° | 380 | 379 | 378 | 381 | 381 | 107 |
| 25° | 352 | 351 | 352 | 356 | 357 | 162 |
| 35° | 312 | 314 | 316 | 323 | 324 | 195 |
| 45° | 260 | 264 | 272 | 282 | 287 | 200 |
| 55° | 198 | 206 | 224 | 239 | 245 | 177 |
| 65° | 128 | 144 | 169 | 183 | 187 | 127 |
| 75° | 56 | 82 | 94 | 85 | 82 | 61 |
| 85° | 10 | 11 | 6 | 6 | 5 | 13 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 394.5 | 394.5 | 394.5 | 394.5 | 394.5 |
| 2.5° | 396.4 | 394.5 | 391.8 | 394.5 | 393.6 |
| 5° | 394.5 | 393.6 | 390.9 | 393.6 | 392.7 |
| 7.5° | 391.8 | 391.8 | 389.0 | 390.9 | 390.9 |
| 10° | 389.0 | 388.1 | 386.3 | 389.0 | 388.1 |
| 12.5° | 384.4 | 383.5 | 382.6 | 385.3 | 384.4 |
| 15° | 379.8 | 378.9 | 378.0 | 380.7 | 380.7 |
| 17.5° | 374.3 | 373.4 | 372.5 | 376.1 | 376.1 |
| 20° | 367.0 | 367.0 | 367.0 | 370.6 | 369.7 |
| 22.5° | 359.6 | 359.6 | 360.5 | 364.2 | 363.3 |
| 25° | 352.2 | 351.3 | 352.2 | 355.9 | 356.8 |
| 27.5° | 343.0 | 344.0 | 344.9 | 348.6 | 349.5 |
| 30° | 333.8 | 334.8 | 335.7 | 340.3 | 341.2 |
| 32.5° | 322.8 | 324.6 | 326.5 | 332.0 | 332.0 |
| 35° | 311.8 | 313.6 | 316.4 | 322.8 | 323.7 |
| 37.5° | 299.8 | 301.7 | 305.3 | 312.7 | 314.5 |
| 40° | 286.9 | 289.7 | 295.2 | 302.6 | 305.3 |
| 42.5° | 274.1 | 277.7 | 284.2 | 292.5 | 296.1 |
| 45° | 260.3 | 263.9 | 272.2 | 282.3 | 286.9 |
| 47.5° | 245.6 | 250.2 | 260.3 | 273.1 | 276.8 |
| 50° | 229.9 | 236.4 | 248.3 | 262.1 | 266.7 |
| 52.5° | 214.3 | 221.6 | 236.4 | 251.1 | 255.7 |
| 55° | 197.7 | 206.0 | 224.4 | 239.1 | 244.6 |
| 57.5° | 181.2 | 190.4 | 211.5 | 227.2 | 232.7 |
| 60° | 163.7 | 174.7 | 197.7 | 213.4 | 218.0 |
| 62.5° | 146.2 | 159.1 | 183.9 | 199.6 | 203.2 |
| 65° | 127.8 | 143.5 | 169.2 | 183.0 | 186.7 |
| 67.5° | 110.4 | 128.8 | 154.5 | 164.6 | 164.6 |
| 70° | 92.0 | 112.2 | 138.0 | 140.7 | 135.2 |
| 72.5° | 73.6 | 96.6 | 119.6 | 109.4 | 104.8 |
| 75° | 56.1 | 81.9 | 93.8 | 84.6 | 81.9 |
| 77.5° | 42.3 | 66.2 | 66.2 | 60.7 | 58.9 |
| 80° | 29.4 | 50.6 | 44.1 | 38.6 | 35.9 |
| 82.5° | 19.3 | 28.5 | 23.0 | 18.4 | 15.6 |
| 85° | 10.1 | 11.0 | 6.4 | 5.5 | 4.6 |
| 87.5° | 3.7 | 1.8 | 0.9 | 1.8 | 0.9 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)