

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: P275729

Luminaire Tested: **14CZ2-25-RDP-UNV-L83050-W2A1-U-3000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P275729  
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: 14CZ2-25-RDP-UNV-L83050-W2A1-U-3000K  
Description: CRUZE 2.0 1x4 TUNABLE WHITE LED TROFFER WITH RDP LENS  
Light Source: (168) 80 CRI LEDS TUNED TO 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1471.0 lumens  
Efficiency: N/A  
Efficacy: 80.7 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.28 / 1.4  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

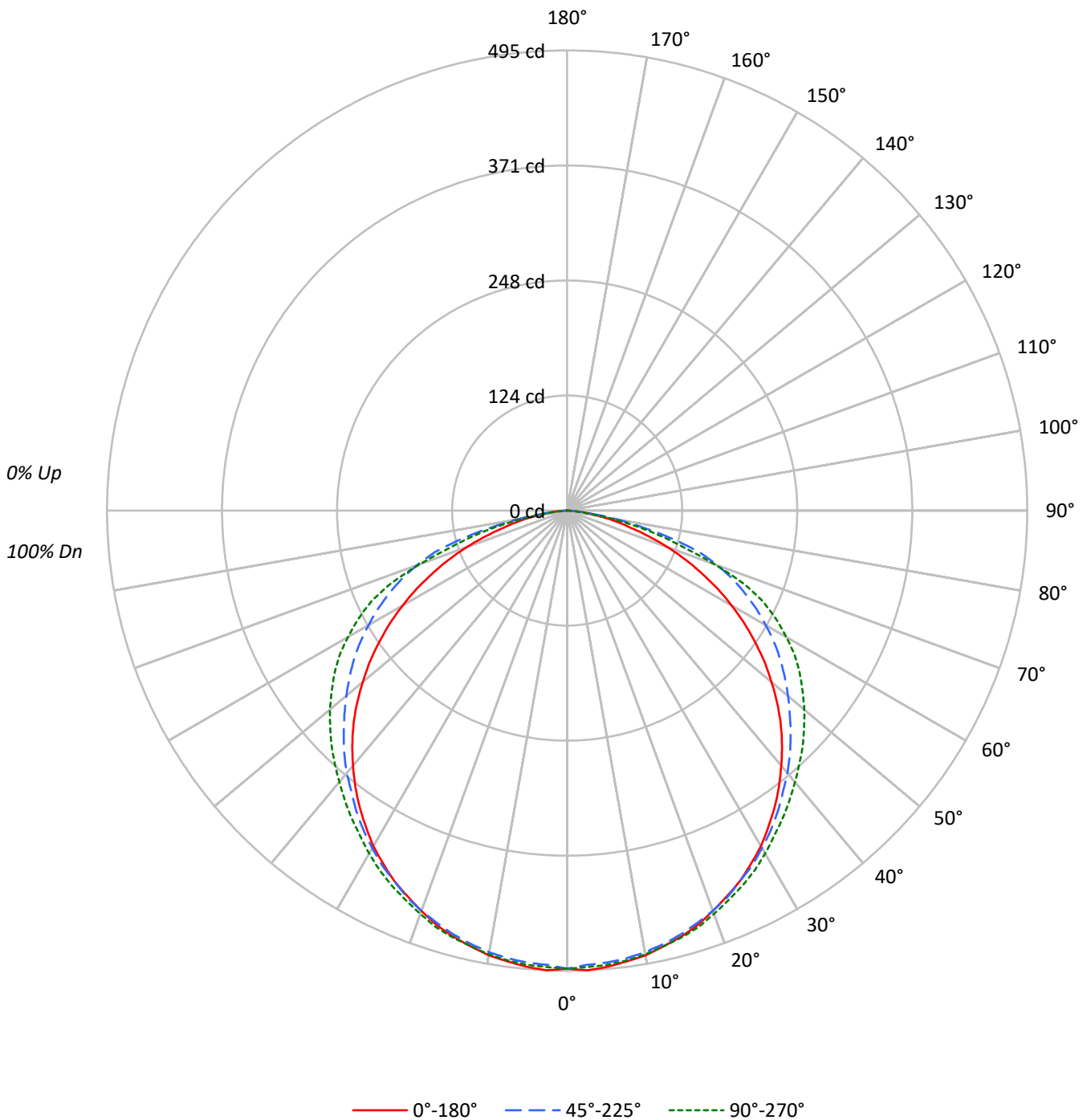
Input Watts (W): 18.228  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°  | 1326 | 1326 | 1326 |
| 5°  | 1331 | 1318 | 1325 |
| 10° | 1327 | 1318 | 1324 |
| 15° | 1321 | 1315 | 1324 |
| 20° | 1312 | 1312 | 1322 |
| 25° | 1306 | 1306 | 1323 |
| 30° | 1295 | 1303 | 1324 |
| 35° | 1279 | 1298 | 1328 |
| 40° | 1259 | 1295 | 1339 |
| 45° | 1237 | 1294 | 1364 |
| 50° | 1202 | 1298 | 1394 |
| 55° | 1158 | 1315 | 1433 |
| 60° | 1100 | 1329 | 1465 |
| 65° | 1016 | 1345 | 1484 |
| 70° | 903  | 1356 | 1328 |
| 75° | 729  | 1218 | 1063 |
| 80° | 569  | 854  | 694  |
| 85° | 389  | 247  | 176  |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 46.6   | 3.2       |
| 10°-20°   | 133.8  | 9.1       |
| 20°-30°   | 203.7  | 13.8      |
| 30°-40°   | 248.1  | 16.9      |
| 40°-50°   | 263.2  | 17.9      |
| 50°-60°   | 248.4  | 16.9      |
| 60°-70°   | 200.6  | 13.6      |
| 70°-80°   | 108.8  | 7.4       |
| 80°-90°   | 17.6   | 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°    | 384.1  | 26.1      |
| 0°-40°    | 632.3  | 43.0      |
| 0°-60°    | 1144.0 | 77.8      |
| 0°-90°    | 1471.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 1471.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0°  | 493 | 493   | 493 | 493   | 493 |      |
| 5°  | 493 | 492   | 488 | 492   | 490 | 47   |
| 15° | 474 | 473   | 472 | 475   | 475 | 134  |
| 25° | 440 | 439   | 440 | 444   | 446 | 202  |
| 35° | 389 | 392   | 395 | 403   | 404 | 243  |
| 45° | 325 | 330   | 340 | 353   | 358 | 250  |
| 55° | 247 | 257   | 280 | 299   | 306 | 221  |
| 65° | 160 | 179   | 211 | 228   | 233 | 158  |
| 75° | 70  | 102   | 117 | 106   | 102 | 77   |
| 85° | 13  | 14    | 8   | 7     | 6   | 16   |
| 90° | 0   | 0     | 0   | 0     | 0   |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|-------|-------|-------|-------|-------|-------|
| 0°    | 492.7 | 492.7 | 492.7 | 492.7 | 492.7 |
| 2.5°  | 495.0 | 492.7 | 489.2 | 492.7 | 491.5 |
| 5°    | 492.7 | 491.5 | 488.1 | 491.5 | 490.4 |
| 7.5°  | 489.2 | 489.2 | 485.8 | 488.1 | 488.1 |
| 10°   | 485.8 | 484.6 | 482.3 | 485.8 | 484.6 |
| 12.5° | 480.0 | 478.9 | 477.7 | 481.2 | 480.0 |
| 15°   | 474.3 | 473.2 | 472.0 | 475.4 | 475.4 |
| 17.5° | 467.4 | 466.3 | 465.1 | 469.7 | 469.7 |
| 20°   | 458.2 | 458.2 | 458.2 | 462.8 | 461.7 |
| 22.5° | 449.0 | 449.0 | 450.2 | 454.8 | 453.6 |
| 25°   | 439.8 | 438.7 | 439.8 | 444.4 | 445.6 |
| 27.5° | 428.4 | 429.5 | 430.7 | 435.3 | 436.4 |
| 30°   | 416.9 | 418.0 | 419.2 | 424.9 | 426.1 |
| 32.5° | 403.1 | 405.4 | 407.7 | 414.6 | 414.6 |
| 35°   | 389.3 | 391.6 | 395.1 | 403.1 | 404.2 |
| 37.5° | 374.4 | 376.7 | 381.3 | 390.5 | 392.8 |
| 40°   | 358.3 | 361.8 | 368.6 | 377.8 | 381.3 |
| 42.5° | 342.2 | 346.8 | 354.9 | 365.2 | 369.8 |
| 45°   | 325.0 | 329.6 | 339.9 | 352.6 | 358.3 |
| 47.5° | 306.6 | 312.4 | 325.0 | 341.1 | 345.7 |
| 50°   | 287.1 | 295.1 | 310.1 | 327.3 | 333.0 |
| 52.5° | 267.6 | 276.8 | 295.1 | 313.5 | 319.3 |
| 55°   | 246.9 | 257.2 | 280.2 | 298.6 | 305.5 |
| 57.5° | 226.2 | 237.7 | 264.1 | 283.7 | 290.6 |
| 60°   | 204.4 | 218.2 | 246.9 | 266.4 | 272.2 |
| 62.5° | 182.6 | 198.7 | 229.7 | 249.2 | 253.8 |
| 65°   | 159.6 | 179.2 | 211.3 | 228.5 | 233.1 |
| 67.5° | 137.8 | 160.8 | 192.9 | 205.6 | 205.6 |
| 70°   | 114.8 | 140.1 | 172.3 | 175.7 | 168.8 |
| 72.5° | 91.9  | 120.6 | 149.3 | 136.7 | 130.9 |
| 75°   | 70.1  | 102.2 | 117.1 | 105.7 | 102.2 |
| 77.5° | 52.8  | 82.7  | 82.7  | 75.8  | 73.5  |
| 80°   | 36.7  | 63.2  | 55.1  | 48.2  | 44.8  |
| 82.5° | 24.1  | 35.6  | 28.7  | 23.0  | 19.5  |
| 85°   | 12.6  | 13.8  | 8.0   | 6.9   | 5.7   |
| 87.5° | 4.6   | 2.3   | 1.1   | 2.3   | 1.1   |
| 90°   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |

(END OF REPORT)