

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: P275746

Luminaire Tested: **14CZ2-39-RDP-UNV-L83050-W2A1-U-4000K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P275746
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: 14CZ2-39-RDP-UNV-L83050-W2A1-U-4000K
Description: CRUZE 2.0 1x4 TUNABLE WHITE LED TROFFER
WITH RDP LENS
Light Source: (168) 80 CRI LEDS TUNED TO 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2592.0 lumens
Efficiency: N/A
Efficacy: 81.7 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

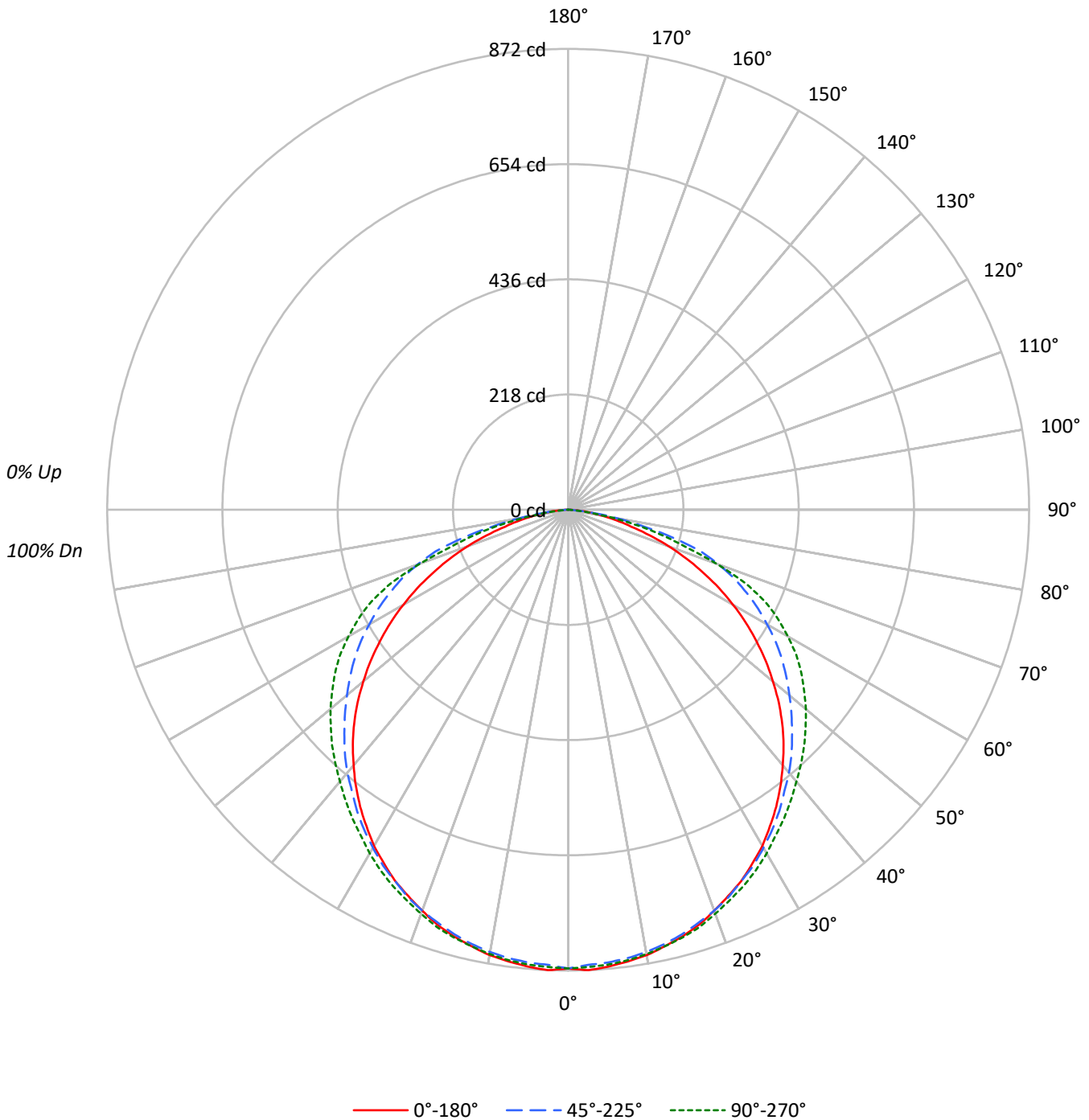
Input Watts (W): 31.713
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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 | 93 | 91 | 88 | 90 | 88 | 86 | 84 | | | | | 84 | | | |
| 2 | 99 | 90 | 83 | 77 | 96 | 88 | 82 | 76 | 85 | 79 | 75 | 81 | 77 | 73 | 78 | 75 | 71 | 69 | | | | | 69 | | | |
| 3 | 90 | 79 | 71 | 64 | 87 | 77 | 70 | 63 | 74 | 68 | 62 | 71 | 66 | 61 | 69 | 64 | 60 | 58 | | | | | 58 | | | |
| 4 | 82 | 70 | 61 | 54 | 80 | 68 | 60 | 53 | 66 | 58 | 53 | 63 | 57 | 52 | 61 | 56 | 51 | 49 | | | | | 49 | | | |
| 5 | 75 | 62 | 53 | 46 | 73 | 61 | 52 | 46 | 59 | 51 | 45 | 57 | 50 | 45 | 55 | 49 | 44 | 42 | | | | | 42 | | | |
| 6 | 69 | 56 | 47 | 40 | 67 | 55 | 46 | 40 | 53 | 45 | 40 | 51 | 44 | 39 | 50 | 44 | 39 | 37 | | | | | 37 | | | |
| 7 | 64 | 50 | 42 | 35 | 62 | 50 | 41 | 35 | 48 | 40 | 35 | 47 | 40 | 35 | 45 | 39 | 34 | 32 | | | | | 32 | | | |
| 8 | 60 | 46 | 37 | 31 | 58 | 45 | 37 | 31 | 44 | 36 | 31 | 43 | 36 | 31 | 41 | 35 | 31 | 29 | | | | | 29 | | | |
| 9 | 56 | 42 | 34 | 28 | 54 | 42 | 34 | 28 | 40 | 33 | 28 | 39 | 33 | 28 | 38 | 32 | 28 | 26 | | | | | 26 | | | |
| 10 | 52 | 39 | 31 | 25 | 51 | 38 | 31 | 25 | 37 | 30 | 25 | 36 | 30 | 25 | 35 | 29 | 25 | 23 | | | | | 23 | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 2336 | 2336 | 2336 |
| 5° | 2345 | 2323 | 2334 |
| 10° | 2339 | 2322 | 2334 |
| 15° | 2328 | 2317 | 2334 |
| 20° | 2312 | 2312 | 2330 |
| 25° | 2301 | 2301 | 2331 |
| 30° | 2283 | 2295 | 2333 |
| 35° | 2254 | 2287 | 2340 |
| 40° | 2218 | 2282 | 2360 |
| 45° | 2179 | 2280 | 2403 |
| 50° | 2118 | 2287 | 2457 |
| 55° | 2041 | 2317 | 2525 |
| 60° | 1939 | 2342 | 2581 |
| 65° | 1791 | 2371 | 2616 |
| 70° | 1592 | 2388 | 2341 |
| 75° | 1283 | 2146 | 1873 |
| 80° | 1004 | 1505 | 1223 |
| 85° | 689 | 438 | 312 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 82.2 | 3.2 |
| 10°-20° | 235.7 | 9.1 |
| 20°-30° | 359.0 | 13.8 |
| 30°-40° | 437.2 | 16.9 |
| 40°-50° | 463.9 | 17.9 |
| 50°-60° | 437.8 | 16.9 |
| 60°-70° | 353.5 | 13.6 |
| 70°-80° | 191.8 | 7.4 |
| 80°-90° | 31.0 | 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° | 676.9 | 26.1 |
| 0°-40° | 1114.1 | 43.0 |
| 0°-60° | 2015.7 | 77.8 |
| 0°-90° | 2592.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 2592.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 868 | 868 | 868 | 868 | 868 | |
| 5° | 868 | 866 | 860 | 866 | 864 | 82 |
| 15° | 836 | 834 | 832 | 838 | 838 | 236 |
| 25° | 775 | 773 | 775 | 783 | 785 | 357 |
| 35° | 686 | 690 | 696 | 710 | 712 | 429 |
| 45° | 573 | 581 | 599 | 621 | 631 | 441 |
| 55° | 435 | 453 | 494 | 526 | 538 | 389 |
| 65° | 281 | 316 | 372 | 403 | 411 | 279 |
| 75° | 123 | 180 | 206 | 186 | 180 | 135 |
| 85° | 22 | 24 | 14 | 12 | 10 | 29 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P275746

CATALOG NUMBER: 14CZ2-39-RDP-UNV-L83050-W2A1-U-4000K

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 868.1 | 868.1 | 868.1 | 868.1 | 868.1 |
| 2.5° | 872.2 | 868.1 | 862.1 | 868.1 | 866.1 |
| 5° | 868.1 | 866.1 | 860.0 | 866.1 | 864.1 |
| 7.5° | 862.1 | 862.1 | 856.0 | 860.0 | 860.0 |
| 10° | 856.0 | 854.0 | 849.9 | 856.0 | 854.0 |
| 12.5° | 845.9 | 843.8 | 841.8 | 847.9 | 845.9 |
| 15° | 835.7 | 833.7 | 831.7 | 837.8 | 837.8 |
| 17.5° | 823.6 | 821.6 | 819.6 | 827.7 | 827.7 |
| 20° | 807.4 | 807.4 | 807.4 | 815.5 | 813.5 |
| 22.5° | 791.2 | 791.2 | 793.3 | 801.3 | 799.3 |
| 25° | 775.0 | 773.0 | 775.0 | 783.1 | 785.2 |
| 27.5° | 754.8 | 756.8 | 758.9 | 766.9 | 769.0 |
| 30° | 734.6 | 736.6 | 738.6 | 748.7 | 750.8 |
| 32.5° | 710.3 | 714.3 | 718.4 | 730.5 | 730.5 |
| 35° | 686.0 | 690.0 | 696.1 | 710.3 | 712.3 |
| 37.5° | 659.7 | 663.7 | 671.8 | 688.0 | 692.1 |
| 40° | 631.4 | 637.4 | 649.6 | 665.8 | 671.8 |
| 42.5° | 603.0 | 611.1 | 625.3 | 643.5 | 651.6 |
| 45° | 572.7 | 580.8 | 599.0 | 621.2 | 631.4 |
| 47.5° | 540.3 | 550.4 | 572.7 | 601.0 | 609.1 |
| 50° | 505.9 | 520.1 | 546.4 | 576.7 | 586.8 |
| 52.5° | 471.5 | 487.7 | 520.1 | 552.4 | 562.6 |
| 55° | 435.1 | 453.3 | 493.8 | 526.1 | 538.3 |
| 57.5° | 398.7 | 418.9 | 465.4 | 499.8 | 512.0 |
| 60° | 360.2 | 384.5 | 435.1 | 469.5 | 479.6 |
| 62.5° | 321.8 | 350.1 | 404.7 | 439.1 | 447.2 |
| 65° | 281.3 | 315.7 | 372.3 | 402.7 | 410.8 |
| 67.5° | 242.8 | 283.3 | 340.0 | 362.2 | 362.2 |
| 70° | 202.4 | 246.9 | 303.5 | 309.6 | 297.5 |
| 72.5° | 161.9 | 212.5 | 263.1 | 240.8 | 230.7 |
| 75° | 123.4 | 180.1 | 206.4 | 186.2 | 180.1 |
| 77.5° | 93.1 | 145.7 | 145.7 | 133.6 | 129.5 |
| 80° | 64.8 | 111.3 | 97.1 | 85.0 | 78.9 |
| 82.5° | 42.5 | 62.7 | 50.6 | 40.5 | 34.4 |
| 85° | 22.3 | 24.3 | 14.2 | 12.1 | 10.1 |
| 87.5° | 8.1 | 4.0 | 2.0 | 4.0 | 2.0 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)