

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: P275882

Luminaire Tested: **14CZ2-39-RDP-UNV-L92765-W2A1-U-6500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P275882
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-L92765-W2A1-U-6500K
Description: CRUZE 2.0 1x4 TUNABLE WHITE LED TROFFER WITH RDP LENS
Light Source: (168) 90 CRI LEDS TUNED TO 6500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2343.0 lumens
Efficiency: N/A
Efficacy: 72.2 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

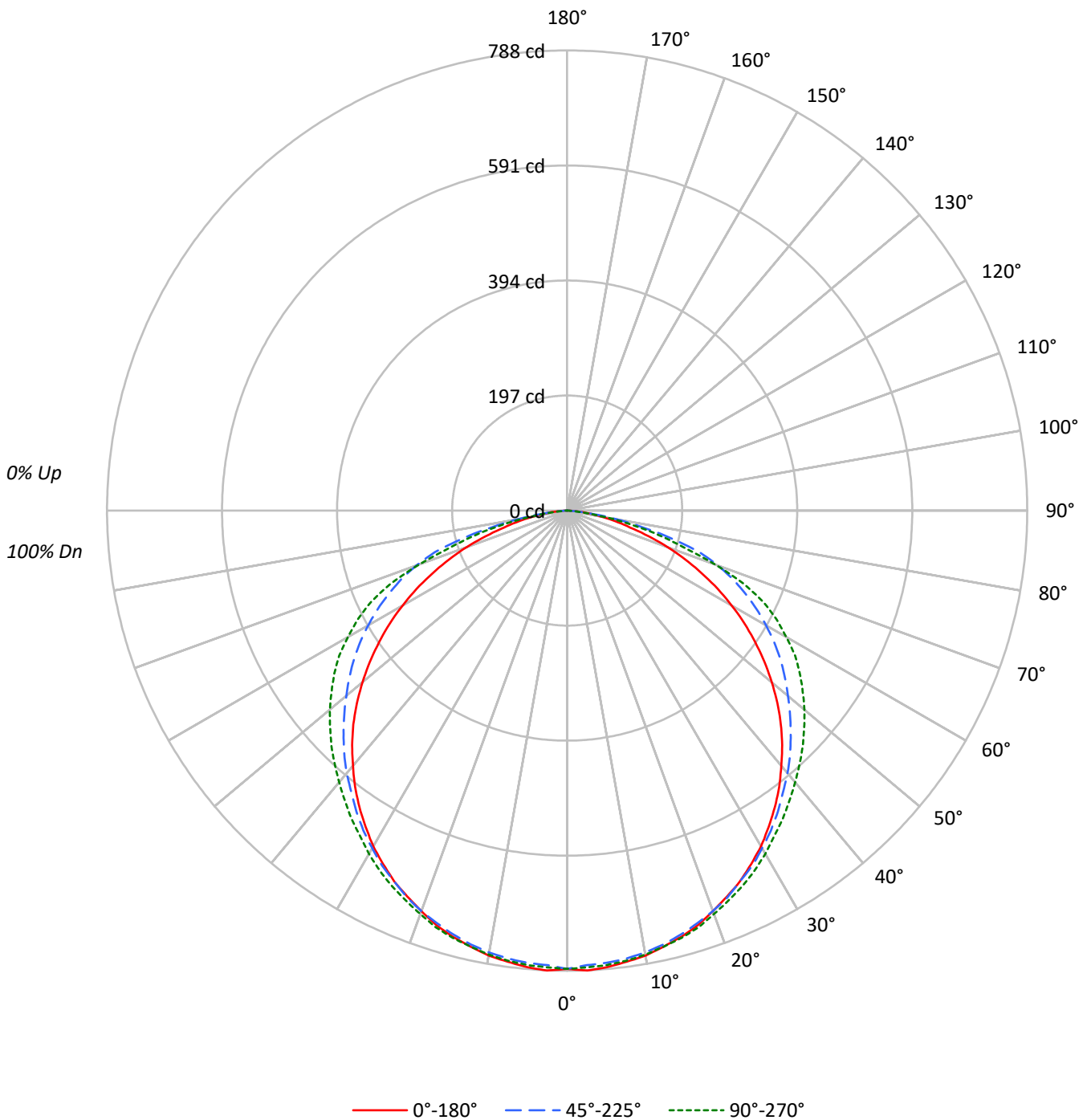
Input Watts (W): 32.457
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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° | 2112 | 2112 | 2112 |
| 5° | 2120 | 2100 | 2110 |
| 10° | 2114 | 2099 | 2109 |
| 15° | 2105 | 2094 | 2110 |
| 20° | 2090 | 2090 | 2106 |
| 25° | 2080 | 2080 | 2107 |
| 30° | 2063 | 2075 | 2109 |
| 35° | 2037 | 2067 | 2115 |
| 40° | 2005 | 2063 | 2133 |
| 45° | 1970 | 2060 | 2172 |
| 50° | 1914 | 2068 | 2221 |
| 55° | 1845 | 2094 | 2283 |
| 60° | 1752 | 2117 | 2333 |
| 65° | 1619 | 2143 | 2364 |
| 70° | 1439 | 2159 | 2116 |
| 75° | 1160 | 1940 | 1693 |
| 80° | 907 | 1361 | 1105 |
| 85° | 621 | 395 | 281 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 74.3 | 3.2 |
| 10°-20° | 213.1 | 9.1 |
| 20°-30° | 324.5 | 13.8 |
| 30°-40° | 395.2 | 16.9 |
| 40°-50° | 419.3 | 17.9 |
| 50°-60° | 395.7 | 16.9 |
| 60°-70° | 319.5 | 13.6 |
| 70°-80° | 173.3 | 7.4 |
| 80°-90° | 28.0 | 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° | 611.9 | 26.1 |
| 0°-40° | 1007.1 | 43.0 |
| 0°-60° | 1822.1 | 77.8 |
| 0°-90° | 2343.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 2343.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 785 | 785 | 785 | 785 | 785 | |
| 5° | 785 | 783 | 777 | 783 | 781 | 75 |
| 15° | 756 | 754 | 752 | 757 | 757 | 213 |
| 25° | 701 | 699 | 701 | 708 | 710 | 323 |
| 35° | 620 | 624 | 629 | 642 | 644 | 388 |
| 45° | 518 | 525 | 541 | 562 | 571 | 399 |
| 55° | 393 | 410 | 446 | 476 | 487 | 351 |
| 65° | 254 | 285 | 337 | 364 | 371 | 252 |
| 75° | 112 | 163 | 187 | 168 | 163 | 122 |
| 85° | 20 | 22 | 13 | 11 | 9 | 26 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 784.7 | 784.7 | 784.7 | 784.7 | 784.7 |
| 2.5° | 788.4 | 784.7 | 779.2 | 784.7 | 782.9 |
| 5° | 784.7 | 782.9 | 777.4 | 782.9 | 781.1 |
| 7.5° | 779.2 | 779.2 | 773.8 | 777.4 | 777.4 |
| 10° | 773.8 | 771.9 | 768.3 | 773.8 | 771.9 |
| 12.5° | 764.6 | 762.8 | 761.0 | 766.4 | 764.6 |
| 15° | 755.5 | 753.6 | 751.8 | 757.3 | 757.3 |
| 17.5° | 744.5 | 742.7 | 740.8 | 748.1 | 748.1 |
| 20° | 729.9 | 729.9 | 729.9 | 737.2 | 735.3 |
| 22.5° | 715.2 | 715.2 | 717.0 | 724.4 | 722.5 |
| 25° | 700.6 | 698.8 | 700.6 | 707.9 | 709.7 |
| 27.5° | 682.3 | 684.1 | 686.0 | 693.3 | 695.1 |
| 30° | 664.0 | 665.8 | 667.7 | 676.8 | 678.6 |
| 32.5° | 642.1 | 645.7 | 649.4 | 660.3 | 660.3 |
| 35° | 620.1 | 623.8 | 629.2 | 642.1 | 643.9 |
| 37.5° | 596.3 | 600.0 | 607.3 | 621.9 | 625.6 |
| 40° | 570.7 | 576.2 | 587.2 | 601.8 | 607.3 |
| 42.5° | 545.1 | 552.4 | 565.2 | 581.7 | 589.0 |
| 45° | 517.7 | 525.0 | 541.4 | 561.6 | 570.7 |
| 47.5° | 488.4 | 497.5 | 517.7 | 543.3 | 550.6 |
| 50° | 457.3 | 470.1 | 493.9 | 521.3 | 530.5 |
| 52.5° | 426.2 | 440.8 | 470.1 | 499.4 | 508.5 |
| 55° | 393.3 | 409.7 | 446.3 | 475.6 | 486.6 |
| 57.5° | 360.4 | 378.6 | 420.7 | 451.8 | 462.8 |
| 60° | 325.6 | 347.5 | 393.3 | 424.4 | 433.5 |
| 62.5° | 290.8 | 316.5 | 365.8 | 396.9 | 404.3 |
| 65° | 254.3 | 285.4 | 336.6 | 364.0 | 371.3 |
| 67.5° | 219.5 | 256.1 | 307.3 | 327.4 | 327.4 |
| 70° | 182.9 | 223.2 | 274.4 | 279.9 | 268.9 |
| 72.5° | 146.3 | 192.1 | 237.8 | 217.7 | 208.5 |
| 75° | 111.6 | 162.8 | 186.6 | 168.3 | 162.8 |
| 77.5° | 84.1 | 131.7 | 131.7 | 120.7 | 117.1 |
| 80° | 58.5 | 100.6 | 87.8 | 76.8 | 71.3 |
| 82.5° | 38.4 | 56.7 | 45.7 | 36.6 | 31.1 |
| 85° | 20.1 | 22.0 | 12.8 | 11.0 | 9.1 |
| 87.5° | 7.3 | 3.7 | 1.8 | 3.7 | 1.8 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)