

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: P276275

Luminaire Tested: **24CZ2-30-UNV-L92765-W2A1-U-6500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P276275
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-5)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-30-UNV-L92765-W2A1-U-6500K
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER WITH RIBBED LENS
Light Source: (168) 90 CRI LEDS TUNED TO 6500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2723.6 lumens
Efficiency: N/A
Efficacy: 119.5 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.27 / 1.37
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

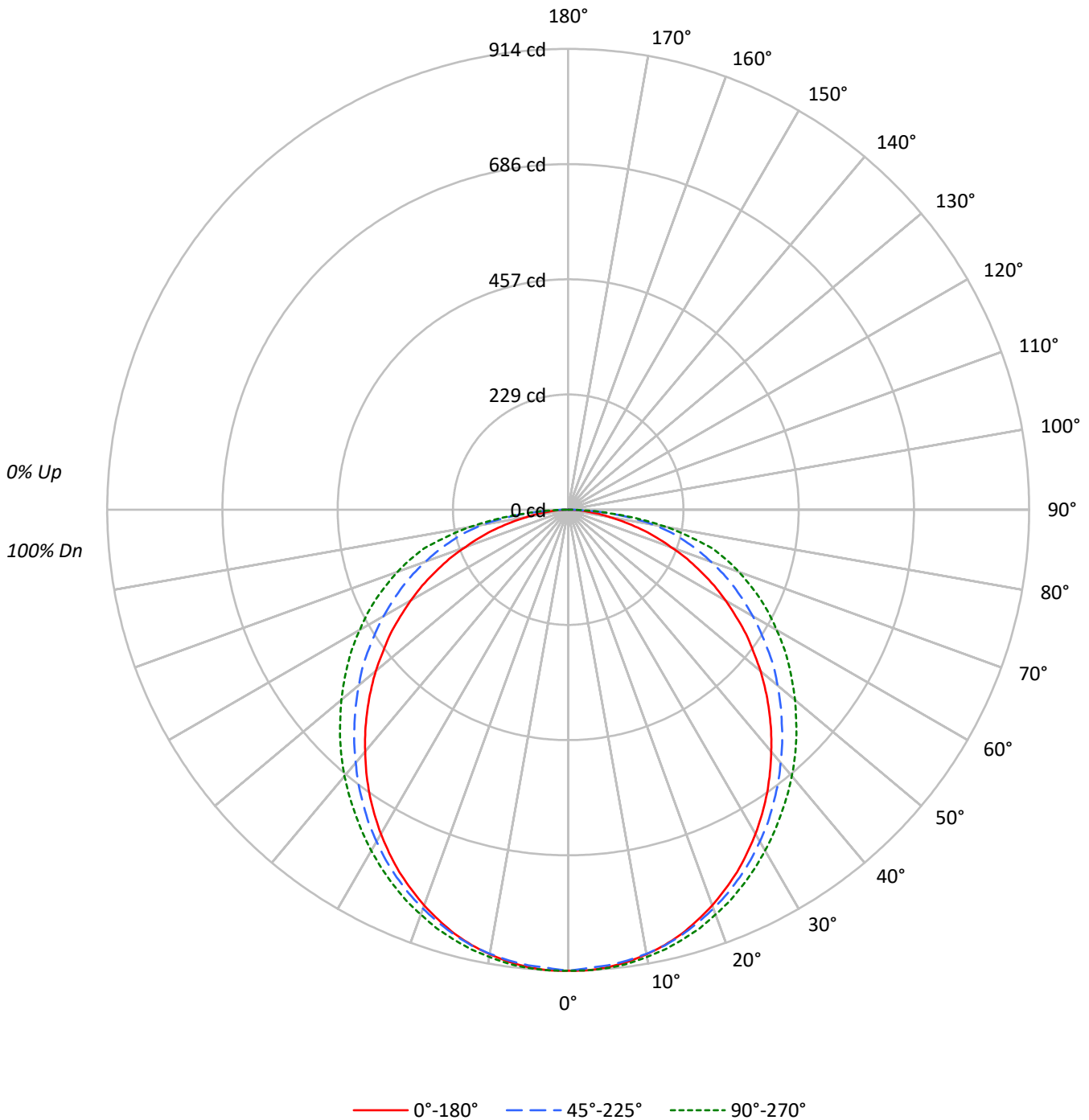
Input Watts (W): 22.785
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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 | 108 | 103 | 98 | 94 | 105 | 100 | 96 | 92 | 96 | 93 | 89 | 92 | 89 | 87 | 89 | 86 | 84 | 82 |
| 2 | 98 | 89 | 82 | 76 | 95 | 87 | 80 | 75 | 83 | 78 | 73 | 80 | 75 | 71 | 77 | 73 | 70 | 67 |
| 3 | 89 | 78 | 69 | 62 | 86 | 76 | 68 | 62 | 73 | 66 | 61 | 70 | 64 | 60 | 68 | 63 | 58 | 56 |
| 4 | 81 | 69 | 59 | 52 | 79 | 67 | 59 | 52 | 65 | 57 | 51 | 62 | 56 | 51 | 60 | 55 | 50 | 48 |
| 5 | 74 | 61 | 52 | 45 | 72 | 60 | 51 | 45 | 58 | 50 | 44 | 56 | 49 | 44 | 54 | 48 | 43 | 41 |
| 6 | 69 | 55 | 46 | 39 | 67 | 54 | 45 | 39 | 52 | 44 | 39 | 50 | 44 | 38 | 49 | 43 | 38 | 36 |
| 7 | 64 | 50 | 41 | 35 | 62 | 49 | 40 | 34 | 47 | 40 | 34 | 46 | 39 | 34 | 45 | 38 | 34 | 32 |
| 8 | 59 | 45 | 37 | 31 | 58 | 45 | 36 | 31 | 43 | 36 | 30 | 42 | 35 | 30 | 41 | 35 | 30 | 28 |
| 9 | 55 | 42 | 33 | 28 | 54 | 41 | 33 | 28 | 40 | 33 | 27 | 39 | 32 | 27 | 38 | 32 | 27 | 25 |
| 10 | 52 | 38 | 30 | 25 | 51 | 38 | 30 | 25 | 37 | 30 | 25 | 36 | 29 | 25 | 35 | 29 | 25 | 23 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 1230 | 1230 | 1230 |
| 5° | 1230 | 1225 | 1233 |
| 10° | 1223 | 1222 | 1231 |
| 15° | 1213 | 1215 | 1228 |
| 20° | 1196 | 1205 | 1223 |
| 25° | 1177 | 1194 | 1219 |
| 30° | 1154 | 1181 | 1213 |
| 35° | 1129 | 1166 | 1209 |
| 40° | 1100 | 1151 | 1212 |
| 45° | 1072 | 1140 | 1218 |
| 50° | 1043 | 1134 | 1229 |
| 55° | 1011 | 1132 | 1252 |
| 60° | 971 | 1137 | 1284 |
| 65° | 920 | 1155 | 1340 |
| 70° | 854 | 1184 | 1416 |
| 75° | 780 | 1243 | 1536 |
| 80° | 641 | 1338 | 1536 |
| 85° | 491 | 1235 | 1318 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 86.5 | 3.2 |
| 10°-20° | 246.9 | 9.1 |
| 20°-30° | 371.5 | 13.6 |
| 30°-40° | 445.3 | 16.3 |
| 40°-50° | 464.0 | 17.0 |
| 50°-60° | 431.7 | 15.9 |
| 60°-70° | 355.6 | 13.1 |
| 70°-80° | 242.2 | 8.9 |
| 80°-90° | 79.9 | 2.9 |
| 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° | 704.9 | 25.9 |
| 0°-40° | 1150.2 | 42.2 |
| 0°-60° | 2045.9 | 75.1 |
| 0°-90° | 2723.6 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 2723.6 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 914 | 914 | 914 | 914 | 914 | |
| 5° | 911 | 911 | 907 | 912 | 913 | 86 |
| 15° | 871 | 872 | 873 | 881 | 882 | 245 |
| 25° | 793 | 796 | 804 | 818 | 821 | 365 |
| 35° | 687 | 695 | 710 | 729 | 736 | 430 |
| 45° | 564 | 575 | 599 | 629 | 640 | 435 |
| 55° | 431 | 445 | 483 | 521 | 534 | 384 |
| 65° | 289 | 314 | 363 | 405 | 421 | 287 |
| 75° | 150 | 184 | 239 | 282 | 295 | 158 |
| 85° | 32 | 62 | 80 | 85 | 85 | 39 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 914.4 | 914.4 | 914.4 | 914.4 | 914.4 |
| 2.5° | 914.4 | 914.4 | 909.9 | 914.4 | 914.4 |
| 5° | 910.8 | 910.8 | 907.1 | 911.7 | 912.6 |
| 7.5° | 904.4 | 905.3 | 901.7 | 907.1 | 908.1 |
| 10° | 895.3 | 896.2 | 894.4 | 899.9 | 900.8 |
| 12.5° | 884.4 | 885.3 | 885.3 | 891.7 | 892.6 |
| 15° | 870.8 | 871.7 | 872.6 | 880.8 | 881.7 |
| 17.5° | 853.5 | 856.2 | 858.1 | 868.1 | 869.9 |
| 20° | 835.3 | 838.1 | 841.7 | 852.6 | 854.4 |
| 22.5° | 814.4 | 818.1 | 824.4 | 836.2 | 839.0 |
| 25° | 792.6 | 796.3 | 804.4 | 818.1 | 820.8 |
| 27.5° | 768.1 | 773.5 | 783.5 | 798.1 | 801.7 |
| 30° | 742.6 | 748.1 | 759.9 | 775.3 | 780.8 |
| 32.5° | 715.4 | 722.6 | 736.3 | 753.5 | 759.0 |
| 35° | 687.2 | 695.4 | 709.9 | 729.0 | 736.3 |
| 37.5° | 657.2 | 666.3 | 683.5 | 704.4 | 713.5 |
| 40° | 626.3 | 637.2 | 655.4 | 679.9 | 689.9 |
| 42.5° | 595.4 | 605.4 | 628.1 | 654.5 | 665.4 |
| 45° | 563.6 | 575.4 | 599.0 | 629.0 | 639.9 |
| 47.5° | 530.8 | 542.7 | 570.8 | 602.6 | 612.6 |
| 50° | 498.1 | 509.9 | 541.7 | 575.4 | 587.2 |
| 52.5° | 462.7 | 478.1 | 514.5 | 548.1 | 559.9 |
| 55° | 430.8 | 445.4 | 482.7 | 520.8 | 533.6 |
| 57.5° | 394.5 | 411.8 | 452.7 | 492.7 | 506.3 |
| 60° | 360.9 | 379.0 | 422.7 | 463.6 | 477.2 |
| 62.5° | 326.3 | 346.3 | 392.7 | 434.5 | 449.9 |
| 65° | 289.1 | 313.6 | 362.7 | 405.4 | 420.8 |
| 67.5° | 255.4 | 280.9 | 332.7 | 376.3 | 389.9 |
| 70° | 217.2 | 248.1 | 300.9 | 344.5 | 359.9 |
| 72.5° | 184.5 | 215.4 | 270.9 | 313.6 | 329.0 |
| 75° | 150.0 | 183.6 | 239.1 | 281.8 | 295.4 |
| 77.5° | 115.4 | 152.7 | 208.2 | 240.9 | 245.4 |
| 80° | 82.7 | 121.8 | 172.7 | 191.8 | 198.2 |
| 82.5° | 58.2 | 93.6 | 127.3 | 140.0 | 143.6 |
| 85° | 31.8 | 61.8 | 80.0 | 85.4 | 85.4 |
| 87.5° | 13.6 | 26.4 | 31.8 | 32.7 | 33.6 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)